Air Influence on the Temperature inside a Concrete Bridge Box Section

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Lufttemperaturpåverkan på temperaturen inuti ett lådtvärsnitt hos en betongbro

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Preface

At the last stage of, my master in civil engineering, I was faced with the opportunity of working together with the civil engineering department of the University of Lund's. Therefore, this project was developed in two phases:

The first phase, took place in Lund's University, Sweden, and involved the entire introduction to the bridge temperatures thematic, the development of the computational model and the respective numerical results collection.

The second phase of this work was developed in IST Lisbon, Portugal, and included the analysis of the numerical results and the development of the conclusions.

Acknowledgments

First of all, I would to thank Oskar Larson for introducing me to this thematic and to the informatics program, and mostly for all his time and patient guidance.

I would also like to thank Professor Fernando Branco for giving me important ideas to improve my analysis as well as an important help on the thesis revision.

Finally, I would like to express my gratitude for the help given by Filipa in the language revision of the thesis and for the support given by my parents, Margarida and Rodrigo during all the period of this work development.

Abstract

The temperature on a bridge is a complex phenomena caused by several sources and it is quite difficult to forecast. Its effects cannot be ignored and during the last decades various studies have been made in this field. In order to reduce the complexity of these investigations, some simplifications, which do not entail large risks, are admitted making the problem easier to analyse.

The main objective of this thesis is to analyse the thermal influence of the air temperature inside a concrete bridge box cross-section. Usually this 'detail' is ignored or simplified by the investigators. With the work developed and presented in this thesis it is possible to understand the dimension of the error introduced in the studies every time this simplification is introduced.

To fulfil this purpose, two finite element models were developed in order to compare with experimental values. The experimental values were collected using the instrumentation installed on the new Svinesund Bridge in Sweden. In both the models (A and B) several thermal sources were introduced affecting the cross section from the outside such as air temperature, solar radiation and the night radiance. The difference between the two models is that in the first model (A) the air inside the box cross-section is taken into account and in the second model (B) that air is ignored.

The quality of the fit of the values obtained using the models A and B with the experimental values from Svinesund allow to take the conclusions of this work. The difference between the models does not indicate that changes in this detail must be included in the future thermal studies.

Keywords:

- Air temperature
- Bridge
- Concrete
- Finite Element
- Svinesund

Resumo

Numa ponte, a temperatura é uma acção complexa originada por diferentes fontes e difícil de prever. Os seus efeitos não devem ser ignorados e por isso nas últimas décadas muitos estudos foram desenvolvidos neste campo. De modo a reduzir a complexidade associada a estas investigações, algumas simplificações, que não acarretam consequências graves, são usualmente introduzidas possibilitando uma análise mais simples.

O objectivo principal desta tese é analisar a influência térmica da temperatura do ar dentro de uma secção em caixão de uma ponte de betão. Normalmente este 'pormenor' é ignorado ou simplificado em investigação. O trabalho desenvolvido e apresentado nesta tese permitirá ter noção da dimensão do erro introduzido nos estudos sempre que esta simplificação é feita.

Para atingir este objectivo, foram desenvolvidos dois modelos em elementos finitos para comparar os resultados com valores experimentais, recolhidos recorrendo a instrumentação instalada na nova ponte de Snivesund na Suécia. Nos dois modelos (A e B) foram introduzidas diferentes acções que afectam termicamente a secção de betão tais como: a temperatura do ar, a radiação solar e a radiação nocturna. A diferença entre os dois modelos reside no facto de no modelo A se considerar o ar dentro da secção em caixão e de no modelo B este ser ignorado.

A qualidade do ajuste dos valores obtidos usando o modelo A ou o modelo B aos valores experimentais permite tirar as conclusões deste trabalho. A diferença dos modelos não revela a necessidade de incluir este pormenor nos futuros estudos térmicos em pontes de secção em caixão.

Palavras-chave:

- Temperatura do ar
- Ponte
- Betão
- Elementos Finitos
- Svinesund

Index

Index of Figures

Index of Tables

1 Introduction

1.1 Importance of considering the thermal effects on bridge design

The consideration of the temperature effects is a quite recent concern on bridge design, remounting to the '60s. The development of new construction and calculation methods allowed the construction of bridges with larger spans using more monolithic and continuous systems. This evolution generated a new problem – the reduction of the reserve of capacity resistance in serviceability conditions. The superstructures became more susceptible to thermal actions creating the need to predict the temperature effects, to minimize its consequences [1].

Through the bridge design, the thermal effects that will affect the structure during its construction and its lifetime must be considered. The lack of constructive details to prevent the thermal effects, like the application of expansion joints, sliding or flexible bearings, and the adoption of flexible substructures, may culminate in some problematic situations [2].

The Newmarket Viaduct, a structure from the 60s', was the first bridge in Auckland, New Zealand to use prestressed continuous box-girder design [3]. As the thermal effects were not considered in its design, the bridge was highly subjected to high stresses from temperature variation. The mitigation of this stresses was quite costly and it was achieved by spreading white ship over the surface of the bridge's pavement [4].

In 1976, Reichsbrücke, the Fourth Danube Bridge in Vienna, collapsed (Figure 1). The catastrophe which caused one death was, according to the experts, caused by the combination of several factors like unfavourable weather, flow and temperature conditions [5].

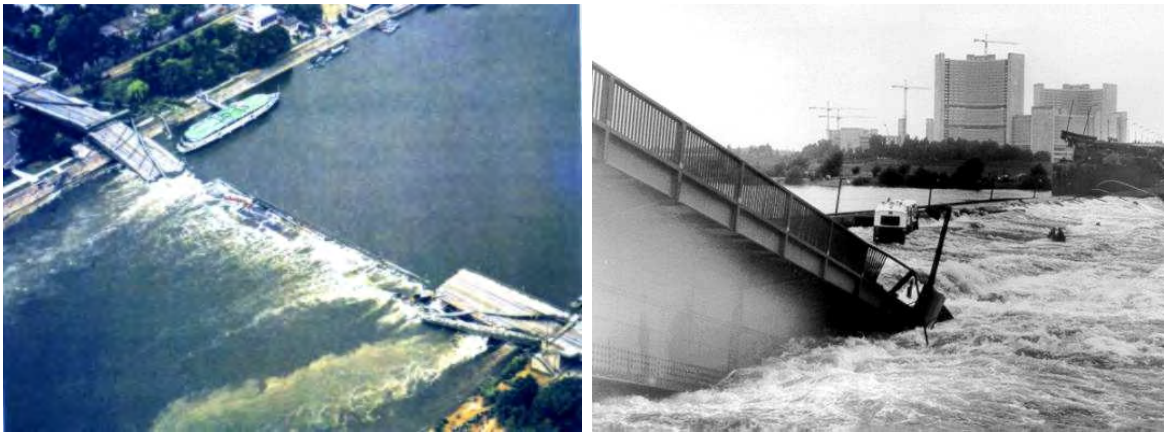


Figure 1 – Photos of the Fourth Danube Bridge after its collapse [5]

More recently, in the 28th of May of 2008, a change of temperature was one of the factors that contributed to the fall of the East London Line project in its construction phase. During the night, the superstructure cooled retracting approximately two or three millimeters, since the Teflon plate was wrongly positioned between the superstructure and the temporary supports, this move caused the scaffold to be removed from its position, resulting in the partial collapse of the east end of the bridge. [6].

Not all the consequences of the thermal action have this magnitude. Most current situations are concrete cracking which can be a matter of concern if it exceeds the regulation limits or there is the possibility of ultimate failure condition to be reached by reinforcement steel [7].

1.2 The legislation

Since the problems caused by the temperature variation arose, the legislation concerning this subject started to be developed in several countries, suffering an enormous evolution. The first regulatory codes were based on research and empirical experience. However, the requirements were only a rough estimation because there was little development in monitoring systems to measure temperatures in cross sections. In the late '70s and early '80s, more research was made – cross-sections with different height and material were examined and legislation was improved [1].

Today it is possible to say that the structural engineering community defends the importance of considering the thermal gradients in all bridge types. However there is still some disagreement, in the regulation of different countries, regarding to the magnitude and shape of thermal gradients to be applied to a structure as a loading condition [2].

1.3 The study developed in this thesis

Usually the studies about this subject have similar objectives, their authors want to find an efficient method to include the thermal action on bridge design.

Most studies on this subject require research work over an extended period of time. As this is a master thesis, a less extensive analysis was made according to the level of what was expected.

In this work it is analyzed the importance of considering the air temperature effects inside the box cross-section of concrete bridges. The air inside the box has a slow circulation and presents small temperature ranges. The fact that this is a small detail inside the thermal subject, made it difficult to find published studies on it, as so, this study was conducted to verify the relevance of this detail on thermal behavior.

In order to analyze the influence of the air temperature inside the bridge cross section, a model with two versions (one that considers the air inside the section and one that does not) was created, and a comparison between the model's results and measured values was made. Svinesund Bridge concrete arch was used to make the measurements. The fact that the arch of this bridge has thicker walls than a

regular girder cross-section, reduces the interior air effects that are obtained in this work. In addition to the thicknesses, the arch and deck sections have more distinctive features such as the existence of cantilevers on the deck that cause shadows which affect the thermal behavior of the structure. However, it is still possible to take some valid conclusions from this analysis.

1.4 The thesis structure

Apart from the Introduction and the Conclusion there are four main chapters in this work:

In Chapter 2 – The Heat transmission chapter – the thermal principles that are common to most of publications on temperature actions are presented. Following this, some details on the applied legislation in some European countries is described. Finally, all the references about the main theme of this thesis are presented.

In Chapter 3 – The Svinesund Bridge – a summary of the bridge story and constructive details are presented. Together with the knowledge acquired in the previous two chapters it was possible to build the model.

In Chapter 4 – the Numerical Model – two models are presented, one ignoring the air inside the box and another one considering it. The program used to create the models was Brigade Plus, which is a Finite Element Model computer program very similar to Abaqus.

Finally, in Chapter 5 – Numerical Results – the comparative analysis between the two models is made from several perspectives and the final conclusions are presented.

2 Heat transmission

There are various heat sources that usually affect concrete bridge temperatures. The environmental thermal actions are the most obvious, however the placement of hot asphalt on the deck or the development of heat of hydration during construction phase are also important [8].

Heat transmission is nothing more than the propagation of heat through a certain substance and it can occur by several ways being the conduction, convection and solar and thermal radiation, the most significant for this work.

In this chapter, the different ways of heat transmission are briefly explained taking into account the existing theories behind the computer program used (Brigade Plus, [9]). Some of these theories are too general and there is an implicit need of explaining how they can be applied during a thermal bridge analysis.

The stresses caused by the thermal actions and how the Eurocode states they must be taken into account are also presented. Finally, the theories found from other authors about the main theme of this thesis are assembled.

2.1 Conduction

2.1.1 General

Conduction is the phenomena of heat transference inside and between solids and it occurs due to temperature differences inside the body and in the surrounding environment [10].

Fourier presented a heat flow equation (Equation (1)) that allowed the representation of conduction in a certain system. This formula has a wide field of application and it describes the thermal boundary condition (Equation (2)) in a three dimensional solid region [11].

Fourier's equation (3D):

$$\rho C \frac{\delta T}{\delta t} = \frac{\delta}{\delta x_i}\left(K_{ij}\frac{\delta T}{\delta x_j}\right) + Q \quad (1)$$

Where

ρ - Density [kg/m^3]

C - Specific heat [J/(kg℃)]

T –Temperature of medium [℃]

t - Time [s]

K_{ij} – Cartesian component of the conductivity tensor [W/(m^{2}ºC)]

Q - Internal heat generation or loss per unit volume [W/m^3]

x – Spatial axis

ij - Summation on repeat subscripts (i, j =1,2,3)

The boundary conditions for this equation are:

$$-\left(K_{ij}\frac{\delta T}{\delta x_j}\right)n_i = -q_a + q_c + q_r \quad (2)$$

Where

q_a - Applied flux [W/m^2]

q_c – Convective flux [W/m^2]

q_r – Radiative flux [W/m^2]

n_i – Cartesian component of normal vector boundary

2.1.2 Application to bridge

To model the arch cross section, some properties and actions throughout the length of the arch were admitted to be constant. In fact, the dimensions of the arch cross section are not constant and there are sections in different heights exposed to different actions. However, for this analysis where the tensions in the concrete are not taken into account and the main goal is obtain a representative model for the real propagation of temperature, these simplifications seem reasonable.

Since the material properties are assumed constant throughout the length of the arch, the model can be reduced to a two dimensional system with the following heat flow equation [12].

Fourier's equation (2D):

$$\rho C\frac{\delta T}{\delta t} = K\left(\frac{\delta^2 T}{\delta x^2} + \frac{\delta^2 T}{\delta y^2}\right) + Q \quad (3)$$

Where

ρ – Density of the fluid [kg/m^3]

C - Specific heat of the concrete [J/(kgºC) or J/(kgK))]

K – Conductivity of the concrete [W/(m^{2}ºC) or W/(m^{2}K)]. It is assumed the conductivity is isotropic

x and y - Spatial axes

The boundary conditions for this equation are:

$$K\left(\frac{\delta T}{\delta x}nx + \frac{\delta T}{\delta y}ny\right) + q = 0 \quad (4)$$

$$q = q_s + q_c + q_r \quad (5)$$

Where

q – Boundary input or loss per unit area [W/m^2]

q_s – Energy transferred between the surface and the environment due to solar radiation [W/m^2]

q_c– Energy transferred between the surface and the environment due to convection [W/m^2]

q_r– Energy transferred between the surface and the environment due to thermal radiation [W/m^2]

nx and ny - Director cosines of the unit outward vector normal to the boundary surface

The computer program Brigade Plus is based on Fourier's heat flow theory and, in order to represent a heat system it only requires the definition of some constants and the boundary conditions. These boundary conditions are the convection, the thermal radiation and the solar radiation, and they are presented and summarily explained in the following subchapters [9].

2.2 Convection

2.2.1 General

Convection is a way of heat transfer associated to heat exchanges inside a fluid or between a fluid and a solid surface. It occurs due to the movement of the fluid particles [10]. The air is the most influent fluid in convection actions and it is the only one considered in this study.

There are two different types of convection: natural and forced. In the natural convection, the surface is heated and the air rises from the surface's vicinity to the surrounding air. The forced convection is mostly motivated by the wind, when it blows across the surface and transfers the heat between the air and the surface [7].

The convection behaviour can be laminar, when the fluid movement is regular, or turbulent if it is not regular [7].

The convection is included in the boundary conditions presented in the previous chapter and it can be represented by Newton's cooling law (Equation (6)) [8].

$$q_c = h_c(T_s - T_{air}) \quad (6)$$

Where

q_c – Energy transferred between the surface and the environment due to convection [W/m^2]

T_s – Temperature of the surface [℃ or K]

T_{air}– Air temperature [℃ or K]

h_c - Convection heat transfer coefficient [W/(m^2℃) or W/(m^{2}K)]

Authors	Expressions
Branco and Mendes [8]	$h_c = 6 + 3{,}7v$ (7)
Duffie and Beckman [13]	$h_c = 5{,}7 + 3{,}8v$ (8)
McAdam [11]	$h_c = 5{,}7 + 3{,}8v$ (9)
Nevander and Elmarsson [13]	$h_c = 6 + 4v\ (v \leq 5ms^{-1})$; $h_c = 7{,}4v^{0{,}78}(v > 5ms^{-1})$ (10)
Watnuff [11]	$h_c = 2{,}8 + 3v$ (11)

Table 1 – Different theories to define the convection heat transfer coefficient

The convection heat coefficient depends on the type of fluid, velocity of the fluid, pressure and temperature, behaviour of the convection, the shape and roughness of the surface [7]. There are several laws that can describe the convection coefficient (Table 1) and all of those laws are based on the same principle about the convection coefficient being divided in two parts: one part that is related to natural convection and other part, depending on the wind velocity (v), which is associated to forced convection.

2.2.2 Application to the bridge

In this case the Nevander and Elmarsson theory is used (Equations (10)).The air renewal inside the concrete boxes is very slow, so all the forced convection can be ignored and the convection heat transfer coefficient in these places, according to the expression above, can be set to 6 W/(m^2℃) [7].

Brigade Plus also utilises Newton cooling law, so in each entry it is only necessary to define the convection heat transfer coefficient, the air temperature and the concerned surfaces [9].

2.3 Radiative Heat transfer

2.3.1 General

All bodies emit radiation with wavelength between $0.1\mu m$ and $100\ \mu m$ [10]. When the radiation reaches another body it can be absorbed, reflected or transmitted. In fact, the radiation behaviour of each body can be described by the following expression [7]:

$$\alpha + \rho + \tau = 1 \quad (12)$$

Where

α – Absorbity

ρ – Reflectivity

τ – Transmissibility

In general α, ρ and τ depend on the radiation wavelength and the incident angle of radiation. The values of each one of the parameters α, ρ and τ is between 0 and 1 [7].

If a body absorbs all the radiation, $\alpha = 1$, it is called black body. The radiance transference from one body can be represented by Stefan-Boltzmann's law which says that the radiance of a black body, R_b, is proportional to the fourth potency of its absolute temperature.

$$R_b = \sigma T^4 \text{ (Black body)} \quad (13)$$

Where

R_b – Total energy sent by the black body (or Radiance) [W/m^2]

σ - Stefan-Boltzmann's constant = 5,729 x 10^{-8}Wm^{-2}°K^{-4}

T – Absolute temperature of the surface [K]

The black body is an abstraction to simplify the study of radiation phenomena. So in reality the bodies are not black but gray. The thermal emissivity expresses the relation between the radiances of a gray body and a black body at same temperature and its value can be expressed by a number calculated by the following relation [7].

$$\varepsilon = \frac{R}{R_b} \quad (14)$$

Where

ε - Thermal emissivity

R - Radiance of the body [W/m^2]

R_b - Radiance of the black body at same temperature [W/m^2]

The perfect reflector is the name given to a body that reflects with total reflectivity $(\rho = 1)$, or in other words, when the reflected angle equals the angle of incidence. When ρ is independent of the incidence angle, it is said the body is a diffuse emitter or reflector. The white body is a particular case of gray body. In this kind of bodies the reflectivity takes the value of 1 $(\rho = 1)$, independently of the radiation wavelength. Most bodies are opaque with $\tau = 0$. Bodies with $\tau = 1$ are transparent [7].

All the three kind of bodies: the perfect reflector, the white and the transparent show the same behaviour from the energy point of view.

Kirchoff's law is valid if the emitter is a black body and if it has the same temperature as the studied body. It says the absorption coefficient and emissivity coefficient can be considerate equals. Despite the limitations of this law, it is usually applied even when the emitter body is not black as it is reasonable to apply this law in cases of long wavelength radiation [7].

$$\varepsilon = \alpha \tag{15}$$

Where

ε - Thermal emissivity

α - Absorption coefficient of the body

The radiative heat transfer can then be described by Stefan-Boltzmann's law as:

$$q_r = \varepsilon\sigma(T_s^4 - T_{air}^4) \tag{16}$$

Where

T_s – Absolute temperature of the surface [K]

T_{air}– Absolute air temperature [K]

It is possible to make this equation express a geometrically linear relation the same way as Newton's law for convection [8]:

$$q_r = h_r(T_s - T_{air}) \quad (17)$$

Where

T_s – Temperature of the surface [℃ or K]

T_{air}– Air temperature [℃ or K]

h_r - Radiation heat transfer coefficient [W/(m^2℃) or W/(m^{2}K)]

2.3.2 Application to the bridge

The computer program Brigade Plus is based on gray's body theory: monochromatic emissivity of the body is independent of the wavelength of propagation of radiation. The formulation of radiation flux is obtained using Stefan-Boltzmann law [9].

If it was necessary to calculate h_r not using the computer program, it could be done using one of the expressions presented in Table 2.

Authors	Expressions	Unities
Branco [8]	$h_r = \varepsilon[4{,}8 + 0{,}075(T_{air} - 5)]$ if $T_{air} > 5$℃ (18) $h_r = 4{,}8\varepsilon$ if $T_{air} < 5$℃ (19)	Celsius (℃)
Elbadry and Ghali [12]	$h_r = \sigma\varepsilon[(T^* + T_s)^2 + (T^* + T_{air})^2](2T^* + T_s + T_{air})$ (20) T^* is a constant to pass from °C into K ($T^* = 273{,}15$)	Celsius (℃)
Mendes [10]	$h_r = 4\varepsilon\sigma T_m^3$ (21) $T_m = \frac{T_s + T_{air}}{2}$ (22)	Kelvin (K)
Silveira [7]	$h_r = 4\varepsilon\sigma T_{air}^3$ (23)	Kelvin (K)

Table 2 – Different methods to calculate the radiation heat transfer coefficient according to some authors

2.4 Solar radiation

As a black body, the sun emits radiation at 5760K with radiation wavelengths between 0,2 and 4,0 μm. Ultraviolet radiation under 0,29 μm is absorbed by ozone and infrared radiation above 2,6 μm is absorbed by water vapour and carbon dioxide [7].

The solar radiation that reaches the earth's surface is called global or total radiation. It is composed essentially by three parts: the beam radiation, the sky diffuse radiation and the contribution from surrounding reflected radiation (ground radiation). The beam radiation is also called direct radiation and can be described as the component that reaches the surface in a unidirectional way without any scattering [14]. The indirect radiation is also known as diffuse radiation is the result of successive reflections and refractions in the atmosphere [10]. In clear days the diffuse radiation has a small contribution, however, in cloudy days it can be the only component reaching a surface [7].

The solar energy that is absorbed by a surface depends on several factors [8], [15] and [12]:

- Day of the year – each day has a different sunlight period;
- Hour of the day;
- Geographic location of the element - latitude of the site and altitude of the element;
- Degree of cloudiness and turbidity of atmosphere;
- Orientation and slopes of the exposed surfaces;
- Nature and colour of the surface;
- Cover surrounding reflectance – it varies with the type of the ground cover.

The rate of heat absorbed by a surface due to short wave solar radiation can be represented by the following expression [16]:

$$q_s = \alpha I \tag{24}$$

Where

q_s – Solar energy absorbed by a surface (W/m^2)

α - Absorption coefficient of the surface material

I - Solar radiation (W/m^2)

As it was referred previously, the solar radiation is composed by three parts [14]:

$$I = I_d + I_i + I_g \tag{25}$$

Where

I_d - Direct or beam radiation (W/m^2)

I_i - Indirect or diffuse radiation (W/m^2)

I_g – Ground radiation (W/m^2)

The calculation of the direct radiation depends essentially on the incidence angle of the radiation, θ, and on the surface slope, the angle between the horizontal and the plane of the surface, β (Figure 2). The slope is easy to measure and θ is obtained from several angles [14]:

$$\theta = \sin(\delta)\sin(\lambda)\cos(\beta) - \sin(\delta)\cos(\lambda)\sin(\beta)\cos(\gamma) + \cos(\delta)\cos(\lambda)\cos(\beta)\cos(\omega) + \cos(\delta)\sin(\lambda)\sin(\beta)\cos(\gamma)\cos(\omega) + \cos(\delta)\sin(\beta)\sin(\gamma)\sin(\omega) \quad (26)$$

Where

δ - Declination, angle of the Sun related to the equator plane

λ - Latitude

γ - Surface azimuth angle, the rotation angle from south for the surface: west positive and east negative.

ω - Angular displacement of the sun from the local meridian due to the earth 15°/hour.

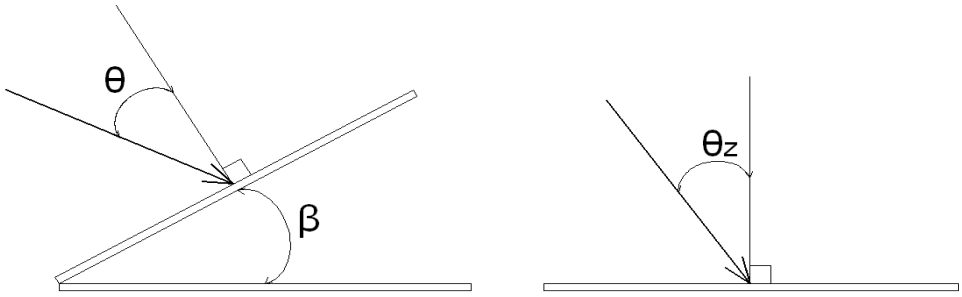


Figure 2 – Inclination of the solar radiation in a slopped and in a horizontal surface

When the value of the beam radiation on a horizontal surface, $I_{d,h}$, is known it is possible to calculate the beam radiation on a surface in its vicinity [14]:

$$I_d = I_{d,h}\cos\theta \quad (27)$$

The diffuse radiation on a sloped surface can be estimated assuming that this kind of radiation is isotropic [14]:

$$I_i = I_{i,h}\left(\frac{1+\cos\beta}{2}\right) \quad (28)$$

Where

$I_{i,h}$ - Diffuse radiation on a horizontal surface (W/m^2)

$\left(\frac{1+\cos\beta}{2}\right)$ - View factor to the sky for the surface

The determination of some components of the radiation such as the global or diffuse radiations can be done using electronic devices. In the model chapter the utilised devices for this work are presented.

The surrounding reflected radiation depends on the ground cover. In fact, the percentage of total radiation that is reflected by the ground is a function of the characteristics of the nearby elements such as the type of vegetation or the existence of water. These characteristics are represented by the reflection factor [11]. The following expression represents one way of estimate the ground radiation [14]:

$$I_g = I_h . \rho_g \left(\frac{1-\cos\beta}{2}\right) \quad (29)$$

Where

$I_h = I_{d,h} + I_{i,h}$

ρ_g - Reflection factor

$\left(\frac{1-\cos\beta}{2}\right)$ - View factor to the ground for the surface

2.5 Stresses produced by temperature

2.5.1 General

The biggest part of the studies developed about temperatures on bridge cross-sections has a common purpose: to take conclusions about the tensions introduced by these actions on the superstructure.

These conclusions help in the design of the bridges, anticipating the superstructure response to thermal actions.

In this work a stress analysis is not conducted, however the importance of the stresses produced in the concrete by the temperatures justifies its presence in this chapter.

As it is expected, the stress field caused by the temperatures is not uniform. The superstructure is subjected to different types of heat and cool sources and the obtained stress diagram is quite irregular. Each temperature stress diagram can be decomposed in three main profiles that allow an easier analysis (Figure 3): uniform temperature (T_m), temperature difference (ΔT) and non-linear distribution (T_0) [8].

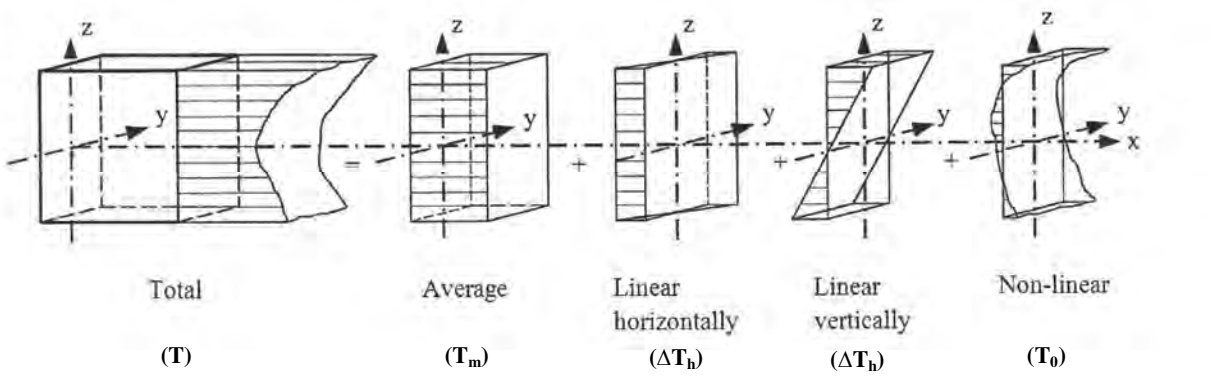


Figure 3 – Components of a temperature distribution in a cross-section [17]

2.5.2 Uniform component, T_m

The uniform component causes variations in the central axis length of the section. However the axis curvature is not changed when the superstructure is subjected to this kind of action [7]. This component can be calculated using the following expression [8]:

$$T_m = \frac{1}{A}\int T dA \tag{30}$$

Where

A - Cross section area

T - Temperature in each area element

The variation of the axis length is calculated multiplying T_m by the coefficient of linear thermal expansion and the total axis length:

$$\Delta L = \alpha T_m L \tag{31}$$

Where

ΔL – Superstructure axis length variation

α_c - Coefficient of linear thermal expansion

L - Superstructure axis length

2.5.3 Temperature difference, ΔT

The temperature difference (ΔT) is the other component of temperature decomposition that allows a change in the axis superstructure shape. Unlike the uniform component, this temperature causes a change in the axis curvature while maintaining its length [7]. The determination of ΔT can be done using equation (32) [8].

$$\Delta T = \frac{h}{I}\int T(y - y_G)dA \tag{32}$$

Where

h - Cross section height along y axis

I - Cross section inertia

y - Coordinate along the vertical axis (y axis)

y_G - Coordinate of the centroid

The product between the thermal gradient (ΔT) and the coefficient of linear thermal expansion (α_c) is made in order to determinate the curvature caused by thermal actions [7].

2.5.4 Non-linear distribution,

The non-linear component (T_0) is associated with self-equilibrating stresses (σ_t), not causing any deformations at section level [7]. This takes a particularly important role during the construction phase due to the heat of hydration [8]. The calculation of this temperature value can be done using Equation (33) [10].

$$T_0 = T - T_m - \Delta T\frac{y - y_G}{h} \tag{33}$$

The self-equilibrating stresses, Equation (34), can be calculated using the non-linear temperature component multiplied by two values that represent model properties [8].

$$\sigma_t = -E\alpha_c \left(T - T_m - \Delta T \frac{y - y_G}{h}\right) \quad (34)$$

Where

E - Young modulus of the material

α_c - Coefficient of thermal expansion

2.6 Eurocode

The previous subchapter contains the basis for the regulation included in Eurocode 1. Once the three main components of the thermal distribution have been explained, it is possible to present some of the guidelines included in the referred document.

First of all, it is important to notice that this subject is relatively recent, in comparison to other structural details included in bridge design. Various studies have been developed in several countries and different methods were taken into account as thermal actions started to be considered. The particular methodology of each country was preserved in Eurocode and it can be found in a National Annex.

It is possible to find this content in two distinct parts from Eurocode: in Eurocode 1 Part 1.5 General Actions – Thermal Actions and in Eurocode 1 Part 2.5 Basis of Design and Actions on Structures.

2.6.1 Eurocode 1 Part 1.5 [17]

In the section from Eurocode, named 'Temperature changes in bridges', are referred some representative values for uniform and difference temperature components. Here, it is possible to find the main standardized directives applied to determine the thermal tensions in all countries covered by the Eurocode.

2.6.1.1 The uniform component (T_m)

The uniform temperature component depends on the maximum and minimum temperatures that the bridge will achieve during its lifetime. Its determination can be done taking into account several contributions:

- The restraint of associated expansion or shrinkage effects related to the type of construction;
- The friction at roller or slider bearings;
- The non-linear geometric effects;
- Just for railway bridges, the interaction effects between the track and the bridge due to temperature variations of the deck and rail may introduce extra horizontal forces in the bearings.

The shade air temperature is obtained by a normalized procedure. The method for obtaining this value, ensures that it is not affected by radiation from the outside elements, heat loss during the night or by precipitation. For each study site, the shade air temperature shall be obtained by estimating its minimum and maximum values and the probability of those values being exceeded must be less than 0.02.

Most of the member states adopted the daily temperature range of ±10℃. However the National Annex may specify different values.

It might be necessary to consider an initial temperature (T_0) at the time that the structure is restrained. To this value of reference, both the maximum and minimum uniform components can be added.

2.6.1.2 Vertical linear component

This effect is considered by using an equivalent linear temperature difference component. The recommended values are given, although it is possible to use the National Annex. These values should be applied between the top and the bottom of the bridge deck.

2.6.1.3 Horizontal linear component

In the previous chapter, it was said that this temperature component has a minor importance. In fact, Eurocode states that the study of this component is only necessary in some specific cases. When it is necessary, a value of 5℃ is used. As well as it happens with the other three components it is also possible to get some different values in the National Annex for this component.

2.6.1.4 Non-linear component

Usually the non-linear effect is included in temperature difference component. The values to add are usually expressed in the National Annex.

2.6.2 Eurocode 1 Part 2.5 [1]

The contents from Eurocode about thermal actions on bridges are based on the previous regulations of the state members.

Unlike the rules for buildings, the rules for bridges are well developed and are codified. In fact, the current codes contain research done during the last 30 years in several countries.

As it was said before, the Eurocode allows some different values in the Nation Annex. This is a way of using the research conducted in each member state without ignoring the obtained knowledge during the last decades in this field.

In the following lines some of the background codes are presented referring some of their more interesting aspects.

2.6.2.1 United Kingdom Code: BS 5400

In this code a special attention is given to the initial temperature (T_0) also called as 'mean' temperature, because it governs the longitudinal movement of the superstructure.

The minimum and maximum shade temperatures were determined using a geographical distribution. Besides the bridge location, the values given in the code also consider the asphalt thickness, the cross section depth and the waterproof membrane contribution.

Unlike the big part of the bridge codes, BS 5400 presents a non-linear temperature for bridge structures.

2.6.2.2 German Code: DIN 1072

The German code had a long period of modifications. The first rules from the 60's were only rough estimations, but after some decades of research, the code has changed showing improvements at different levels. Different types of bridges were studied: steel, composite and concrete. Like in Eurocode the uniform and difference parts are considered. In this code, the non-linear component is included in detailed rules. The initial temperature, (T_0), is considered as 10℃ in all cases not depending on the location.

2.6.2.3 Italy

In Italy the previous regulation is not as rich as the codes already presented. The tabulated values can only be applied in highway bridges. It is also considered the temperature's uniform component which value depends on the location and the temperature's difference component which value is 10℃.

2.6.2.4 Portugal

The Portuguese code includes a lot of recommendations but few numerical values. There are only values for the uniform component. For important bridges, it is usual to carry out special studies to define both the values for uniform and difference components.

2.6.2.5 Spain

The Spanish regulation is very accurate and precise. It is one of the best Standard Code Rules for thermal actions on bridges, being at the same level as the BS 5400.

This code can be used for highway and railway bridges. It presents values for steel, composite and concrete bridges. The uniform and difference components change for different cross-sections shapes. Thermal actions depend on the bridge location and position. It is interesting to know that nine climatic regions in Spain are defined. It is possible to find in this regulation values for horizontal gradients if that kind of analisysis is decided to be taken into account.

2.7 Box air temperature studies

The main objective of this chapter is to present some perspectives and studies from different authors about the influence of the air temperature inside the concrete bridge cross sections. Doing this it is possible to obtain some ideas to build the model.

2.7.1 Silveira [7]

Silveira defined some simplifications to model the temperature inside cell sections:

- The temperature in concrete walls is uniform and it is equal to its average value;
- During each step of the integration, the temperature in the cell remains constant;
- Inside the box there is only natural convection or, in other words, the wind's velocity is zero.

As it is normal, the model is not equal to reality. In reality:

- There is temperature interaction between the air inside the box and the internal walls surfaces which causes a very complex system;
- The air circulation inside the box is very reduced but not null, not affecting too much the temperature;
- The time steps to consider must be short.

Taking into account the limitation of a model and the reality conditions, the problem can be reduced to:

- The determination of energy transference by convection between a container (which walls temperature is constant) and the fluid that was introduced with a certain initial temperature;
- The convection is based on Newton's cooling law considering the solid temperature constant in each step.

2.7.2 Branco and Mendes [8]

Branco and Mendes refer the importance of considering the heat exchange in the internal surfaces, by convection and irradiation. They say this temperature exchange is equal to the increase of energy of the box air volume.

2.7.3 Elbadry and Ghali [16]

According to Elbadry and Ghali the air temperature inside the box section depends on the time variation of the temperature field on the inside surface of the box. They presented an equation that considers the energy balance of the enclosed air between two cross sections a unit distance apart:

$$\int_0^S h[T_S - T_b]\, ds = \rho_a c_a V_b \frac{dT_b}{dt} \quad (35)$$

Where

$T_S(s,t)$ - Inside surface temperature at time t

$T_b(t)$ - Air temperature inside the box

ρ_a - Density of air (1,228 kg/m^3)

c_a - Specific heat (716 J/(kg℃))

V_b - Volume inside the box

Modeling this situation using the the finite element method, the previous expression can be written as:

$$\rho_a c_a \frac{dV_b}{dt} + T_b(t) \sum_{i=1}^{n_b} h_i \Delta s_i = \sum_{i=1}^{n_b} h_i T_{si} \Delta s_i \quad (36)$$

Where

n_b - Number of boundary elements inside the box

Δs_i – Length of boundary element i

$h_i(t)$ - Average of the two nodal values of the heat transfer coefficient

$T_{si}(t)$ - Average of the two nodal values of the surface temperature

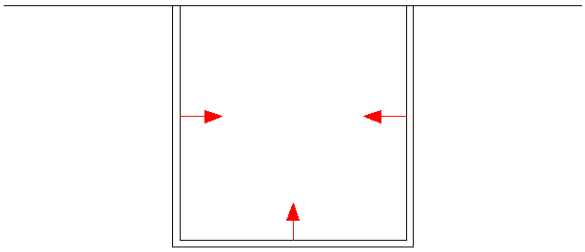
2.7.4 Fu, Ng and Cheung [18]

These authors made some studies on composite bridges, however some concepts developed in their work might be important to this study.

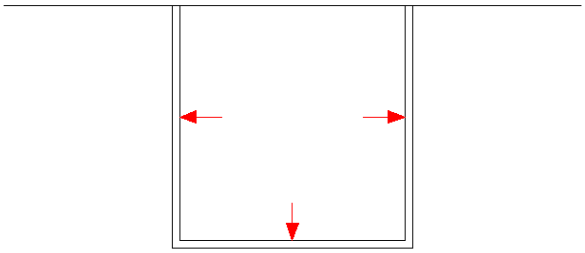
The box girder includes two parts for heat flow analysis: one is the outside surfaces, the other is the inside surfaces in the hollow box.

In composite bridges the heat exchanges are faster than in concrete bridges; in a unit of time, heat flows:

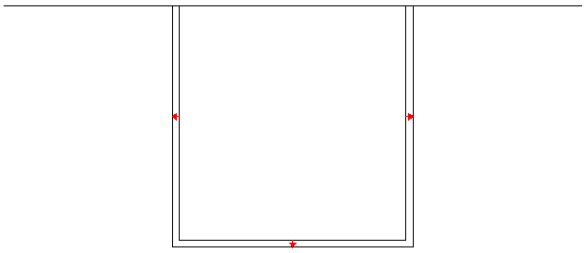
- From the heated steel plates to the entrapped air;



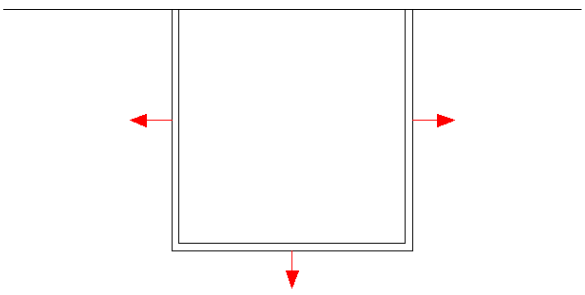
- From the air to the inner surface of the enclosure;



- From the inner surface of the enclosure to the outer surface;



- From the outside surface to the air.



3 Svinesund Bridge [19]

The main objective of this thesis is to understand the importance of considering the interior air temperature inside a concrete bridge cross section. A possible way of making this study would be to compare the measurements from a bridge's cross section with the obtained values using a computer model.

However the equipments and the monitoring to make studies are quite expensive and an alternative solution was explored. Using some of the instrumentation installed by KTH (Royal Institute of Technology) and installing some extra equipment, the study in a cross section of the arch of Svinesund Bridge was made.

There are some differences between analyzing an arch or a straight beam cross section:

- In the arch, the extrapolation of the same data to all the length is less accurate than in a straight beam cross section, where the geometry is constant and the altitude of the cross sections is constant;
- The static behaviour of an arch is different from a beam;
- The cantilevers are inexistent in the arch, but in the beam the contribution of the shadows provided by these elements should not be ignored.

Nonetheless, the dimensions of the arch are very similar to the dimensions of a bridge cross section and, as the objective is not an analysis of the normal tensions, this study might be valid.

In this chapter the Svinesund Bridge is presented and its main structural characteristics are described.

3.1 Location

The Svinesund Bridge has an important role in the frontier between Sweden and Norway and it makes part of the motorway that links Goteborg to Oslo (Figure 4). It was built to replace the Old Svinesund Bridge (Figure 5) which could not answer to the recent traffic needs. The existing traffic lines justified the investment of 681 million SEK. The division of the cost was made according to the physical position of the bridge: 59% paid by Sweden and the left 41% paid by Norway.

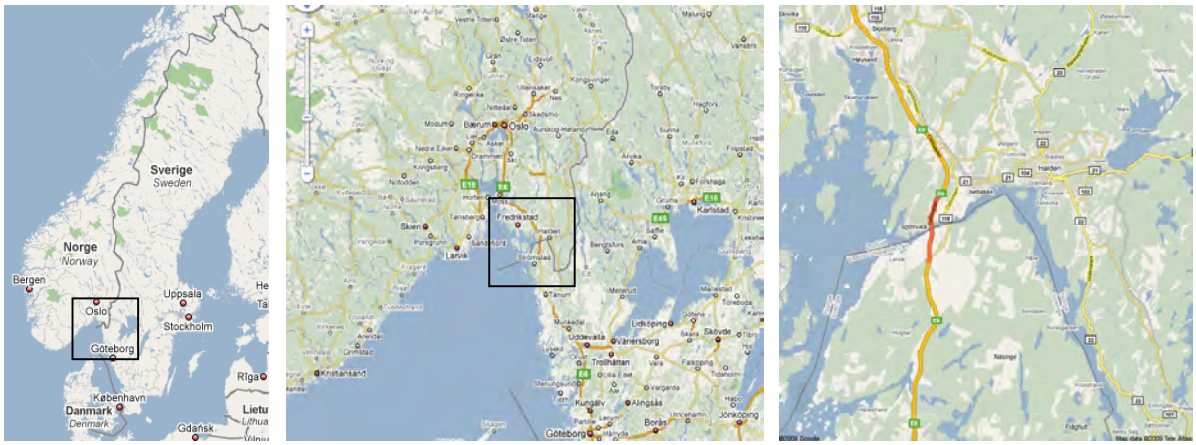


Figure 5 – The Old Svinesund Bridge made of reinforced concrete with approach vault bridges made of granite

The elaboration and execution of the project were made with the collaboration between the Swedish Road Administration and the Norwegian Public Roads Administration.

3.2 Design

The new location of the Svinesund Bridge was the only one possible in order to respect the pre-existent design of the motorway E6.

A contest was launched demanding the following prerequisites:

- The architectonic interplay with the Old Svinesund Bridge;
- The smallest possible impact on the countryside;
- Unbroken shoreline.

Only nine of the twenty companies that wanted to participate in the contest were pre-qualified. The evaluation was made based on aesthetics, environment, technology and economy.

The better proposal was presented by Lund & Jakobsen AS and AB Jakobsen & Widmark.

Figure 6 – Photo montage from the 2000 design completion, respecting the enumerated prerequisites

3.2.1 General Description

The Svinesund Bridge is the world's largest bridge with just a single arch in the middle. The bridge is composed by two approach bridges and one central arch section. The arch span width is 247,3m and the entire bridge has an overall length of 704m. In the following figures it is possible to see the elevation and the plan.

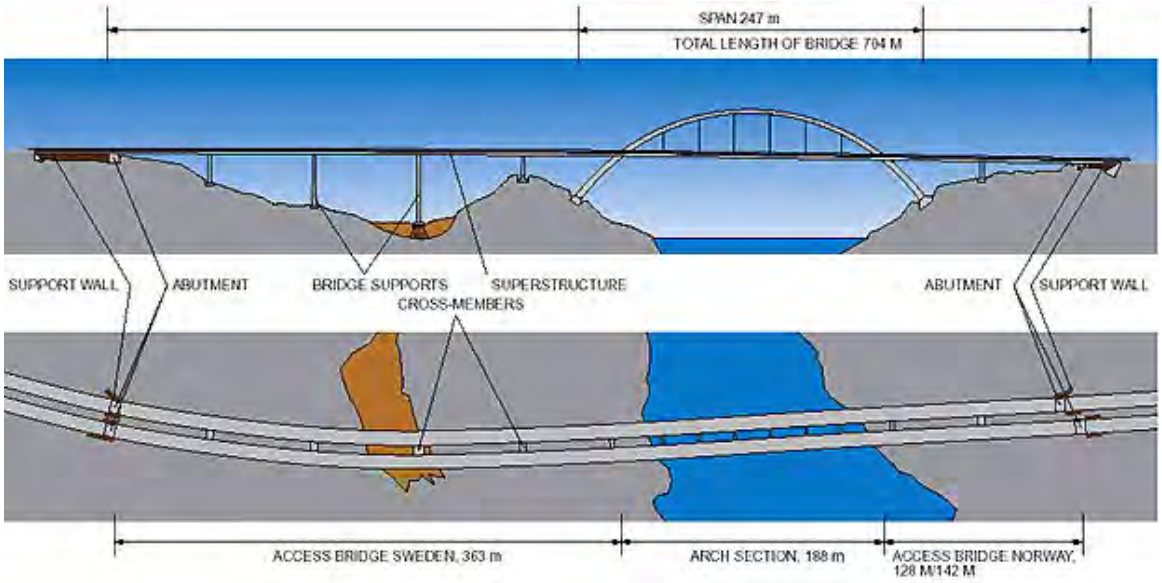


Figure 7 - Elevation and plan of the New Svinesund Bridge [20]

The arch bridge is made of reinforced concrete. The crown of the arch is located 91m above the sea level and its section has 4,4m x 2,7m. The arch presents one radial shape with a 154,226m radius. There are six pairs of hangers, 25m spaced, suspending the superstructure from the arch. In Figure 8 it is possible to see the main dimensions of the arch rib.

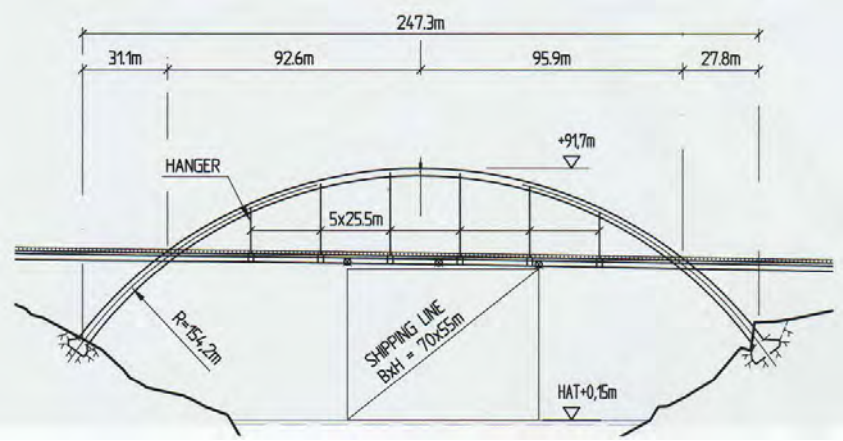


Figure 8 - The arch rib with its main dimension and the representation of the hangers

The hangers are made of enclosed, spiral-wound wire strand and hanger anchors made of cast steel (Figure 9). They have a nominal diameter of 94mm, an area of 5964mm^{2}and are composed by 270 wires. Each wire tensile strength is 1570MPa. The minimum value of the ultimate load in the hangers is 8614kN. The Figure 9 represents one of the 12 hangers which suspend the bridge deck.

Figure 9 - Lower hanger attachment in cross girder

The superstructure is divided in two parts spaced 6,2m. Each one of these parts is a steel box girder with 9,85m of width corresponding to a traffic way. The total width is 28,2m and the high is 3m. The two parts are connected by cross-girders in several places: above the piers and below the hangers. The piers are made of reinforced concrete with 5,6m x 2m, are located right bellow the space between the two parts of the superstructure. In the following picture it is represented the superstructure cross-section.

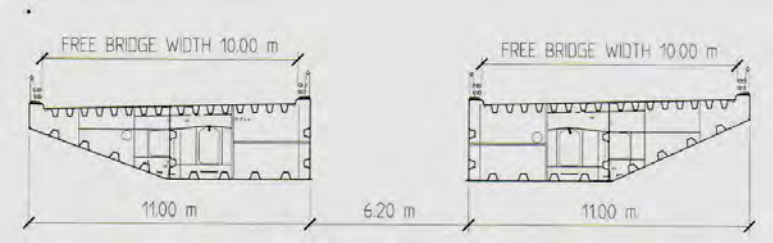


Figure 10 – Superstructure cross-section

There are fixed bearings in piers 3 and 4, in the others piers there are moving bearings. The connection between the arch and the superstructure is fixed. This connection between the concrete arch and the steel girder is not simple in part because two different materials are at stake. The system used in this connection is formed by cables which span horizontally from steel box girder to steel box girder through the arch rib (Figure 11).

Figure 11 - Connection between the steel superstructure and the concrete arch rib

Inside the arch rib it is built the inspection facility. It is possible to enter in this internal communication using one of the two doors located at the ground level in both the sides of the arch. Inside the arch rib there are stairs and ramps leading to the top of the arch where it is possible to find a top door to exterior. The inspection of the exterior surfaces of the arch can be seen in Figure 12.

Figure 12 - Inspection of the concrete surfaces of the arch

3.2.2 Design Loads

The case loads used in the bridge depend on the location and type of utilization the bridge will have in the future. Apart from the *deadload*, which is always taken into account, some other variable loads were estimated: *traffic load*, *wind load*, *replacing hangers, temperature loads*, *ship collision load*, *earthquake load* and *support displacement*.

3.3 Construction

The main goal of this chapter is not to make a detailed description of the bridge construction, but refer some interesting stages of its creation.

One usual requirement to build arch bridges is the quality of the rock in order to provide a proper foundation for the arch. In this case the rock was better in the Swedish side. In the Norwegian side the rock was more cracked and demanded reinforcement using injection and the installation of rock bolts.

The construction of the arch was made using the free cantilevering method (Figure 13). The development of the arch was done from the both sides at same time. To rise the arch, it was built an auxiliary concrete pylon. The arch was built with 53 cast stages:

- 2 from the abutments with 3,31m from the Swedish side and 4,36m from the Norwegian side;
- 50 cast stages with 3,3m (25 from each side);
- The final locking stage with 4,26m.

Figure 13 - Cantilevering method applied in the construction of the arch rib using an auxiliary pylon

The construction of the arch took 11 months. To make possible the work during the winter, heating cables were used. This equipment allowed the continuation of the casting in temperatures down to -15℃, maintaining the concrete at a temperature of 20℃.

Each casting stage takes approximately 5 days to be complete and can be described in 5 steps:

1 Removing the form and moving it to the next casting stage;

2 Insertion of the reinforcement;

3 Installation of embedded details as cable anchors, heating cables, sensors for elongation measurement, sensors for temperature measurement;

4 Casting;

5 Prestressing (temporary stay cables - Figure 14).

Figure 14 - Temporary staying the arch rib during the construction phase

The superstructure was prefabricated in Plauen in Germany and was brought in sections to Svinesund by trailer and boat (Figure 15). The sections were made of steel, with 25m length and 3m width and weighted between 75 and 85 tonnes.

Figure 15 - Transport of the central sections of the superstructure by boat

To assemble the steel structure three different methods were used. From the Swedish side it was used the incremental launching by means of hydraulic arrangement (Figure 16). But from the Norwegian side another solution was adopted – a fixed scaffolding supported by a temporary steel structure (Figure 17). In the centre part the sections were lifted all together from a floating crane using the help of some temporary cables in the arch, reducing the operations time which would be bigger if the sections were lifted one by one (Figure 18).

Figure 16 - Incremental launching using the movable launching nose - Construction of the superstructure from the Swedish side

Figure 17 – Lifting sections of the superstructure using a mobile crane – Norwegian side

Figure 18 – Lifting the central part altogether from a floating crane using temporary cables

The materials used in each part of the Svinesund Bridge are described in Table 3.

Element		Material
Arch	All the arch	Reinforced concrete K70
Abutments	Upper part	Reinforced concrete K70
	Lower part	Reinforced concrete K40
Piers	Foundation slab for the piers	Concrete K40
	Pier columns	Reinforced concrete K45
	Top of the piers	Reinforced concrete K60
Box girder	Thickness < 30mm	SS – EN 10 025 S355 J2G3
	30mm < thickness < 50mm	SS – EN 10 113 S355 J2G3
	50mm < thickness	SS – EN 10 113 S355 NL

Table 3 – Materials used in Svinesund Bridge

In Table 3 the concrete classes are expressed according to the Swedish code Boverket (e.g. K40). The numerical value of the strength class designation represents the compressive strength f_K in MPa, determined by compressive tests on 150 mm cubes in accordance to the Swedish Standard SS 13 72 10 [21].

In Table 4 are set the characteristic values of the compressive strength of concrete, f_{cck} that shall be used in calculating the design material properties [21].

Strength Class	f_{cck} (Mpa)
K40	28.5
K45	32.0
K60	42.5
K70	49.5

Table 4 – Characteristic values of the compressive strength on concrete according to the Swedish code [21]

3.4 Instrumentation

The main purpose of the instrumentation is to monitor and check if the bridge functions as intended not only during its construction but also during its first four years of operation. Several sensors installed on the bridge check the behaviour and technical status of the bridge. All the devices that were used in the bridge are expressed in Table 5.

Number	Name	Location
28	Temperature sensors	Arch base just below the bridge deck.
4	Servo accelerometers	Moved with the climbing formwork and in the final, 2 of them were installed in the crown of the arch and 2 in the quarter point on the Swedish side. It measures the acceleration.
6	Linear servo accelerometers	In the suspended part of the bridge: 3 in the midpoint and 3 in the quarter points. In each section, 2 sensors measure the vertical accelerations and 1 measures the horizontal deck acceleration.
4	Load cells	In the first hanger of the Swedish side to measure the hanger forces.
2	Inductive sensors	At the first intermediate supports on the Swedish and Norwegian sides to monitor the transverse movement of the bridge over the bearings.
16	Vibrating-wire strain gauges	Arch base just below the bridge deck. They measure the strains
8	Resistive gauges	2 in the arch base, 2 in the arch just below the bridge deck and 4 in the crown of the arch. This device measures the force.
1	Temperature sensor	To measure the air temperature.
1	Anemometer	To measure the speed and direction of the wind.

Table 5 - Quantity of sensors in Svinesund Bridge

The design of the measurement system was the result of the collaboration between the Swedish Road Administration, the Public Roads Administration in Norway, the Norwegian Geotechnical Institute (NGI) and the Division of Structural Design and Bridges at the Royal Institute of Technology (KTH). The KTH is the leader of the measurement project and it is responsible for the analysis and verification of measurements data and reporting.

The qualified measurement systems installed have more applications than the simple status checking of the bridge. The collected data can be used to research many interesting issues associated with the true performance of bridges and how this can be measured. The work developed on this thesis was made taking the opportunity of having the temperature sensors already installed inside the arch bridge. The location of the studied section and the position of the sensors are presented in the model chapter.

3.5 Important Dates

In the 7th of July 2002 the contract was signed with the construction company Berger AG. But the work only started in the site on January 2003.

The final tasks in the bridge were made in the spring of 2005 and then it was ready for the loading tests. The Svinesund Bridge opened to the traffic on 12th of June of 2005.

In 2006, the Svinesund Bridge won the European concrete association's annual competition, ECSN Award, in the category of Civil Engineering. In the same year the bridge was among the "Special Mention" class of fib (fédération internationale du béton) Awards for Outstanding Concrete Structures in a group of five projects including the Infante Don Henrique Bridge in Porto, Portugal [22].

Figure 19 – The Svinesund Bridge

4 The numerical model

A model is a representation of reality. When a model is built, it is necessary to assume some simplifications and it must be expected to obtain results that are not completely fitted with the measured values.

In this chapter it is presented a model which is the final result of an investigation involving the change of several parameters in order to get the better adjustments for the modelled and measured values.

The model chapter presents a junction of previous chapters, the theory concepts explained in the first chapter are modelled to represent an arch cross-section from the bridge presented in the second one.

4.1 The Geometry

The model represents the cross section S25 placed at the top of the concrete arch of the Svinesund Bridge (Figure 20). This section was chosen because it was already equipped with some of the thermal transducers needed for this study.

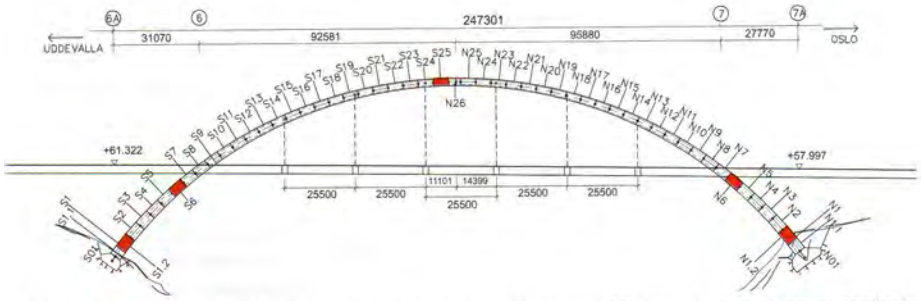


Figure 20 – The position of the measurement points are shaded in red [19]

Both the position of the thermometers and the real dimensions of the cross section S25 are represented in Figure 21. Close to some of the temperature sensors there are also strain sensors not used in this work.

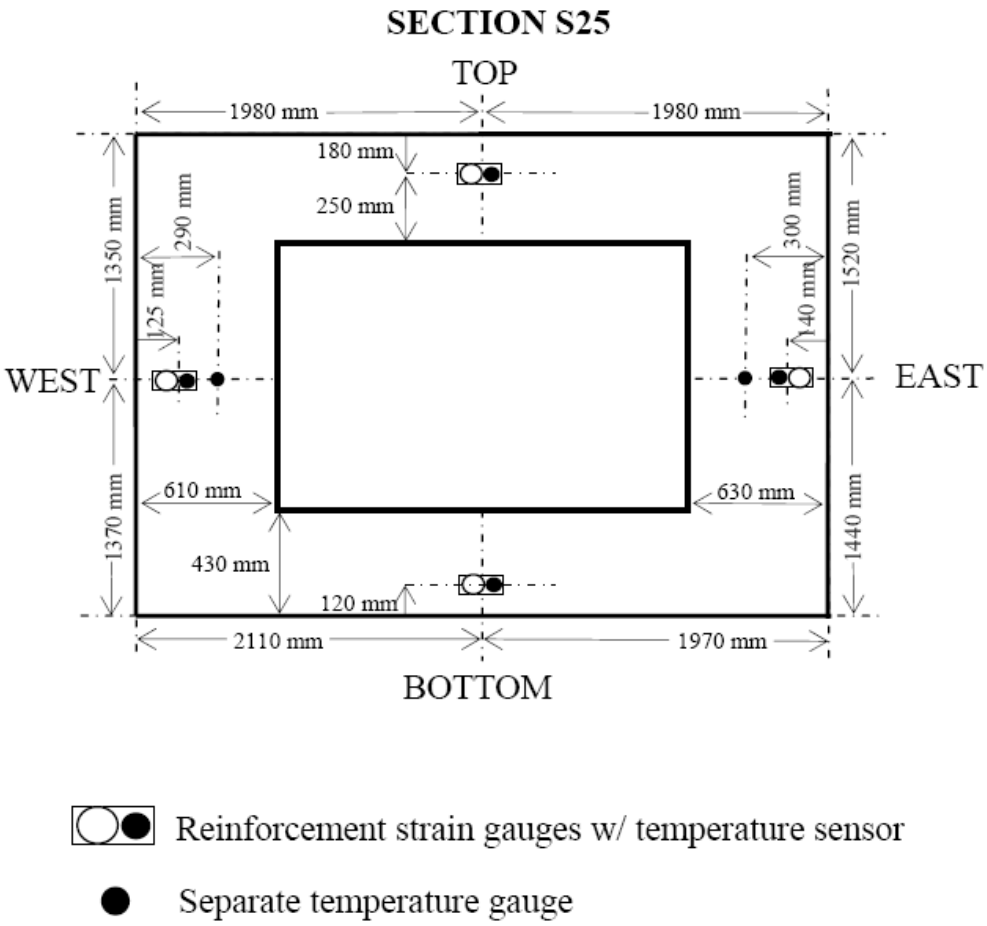


Figure 21 - Real dimensions of the cross section S25 (provided by KTH)

As it is possible to see in Figure 21, neither the two vertical sides nor the two horizontal sides of the real section (S25) have the same size. Despite this irregularity, a regular geometry was considered in order to build the computational model.

The geometry used in the computational program was obtained using two rectangles: one defining the outside border and the other the inside hole (Figure 22). The positions of the temperature sensors inside the concrete walls were adapted to this geometry (Figure 23).

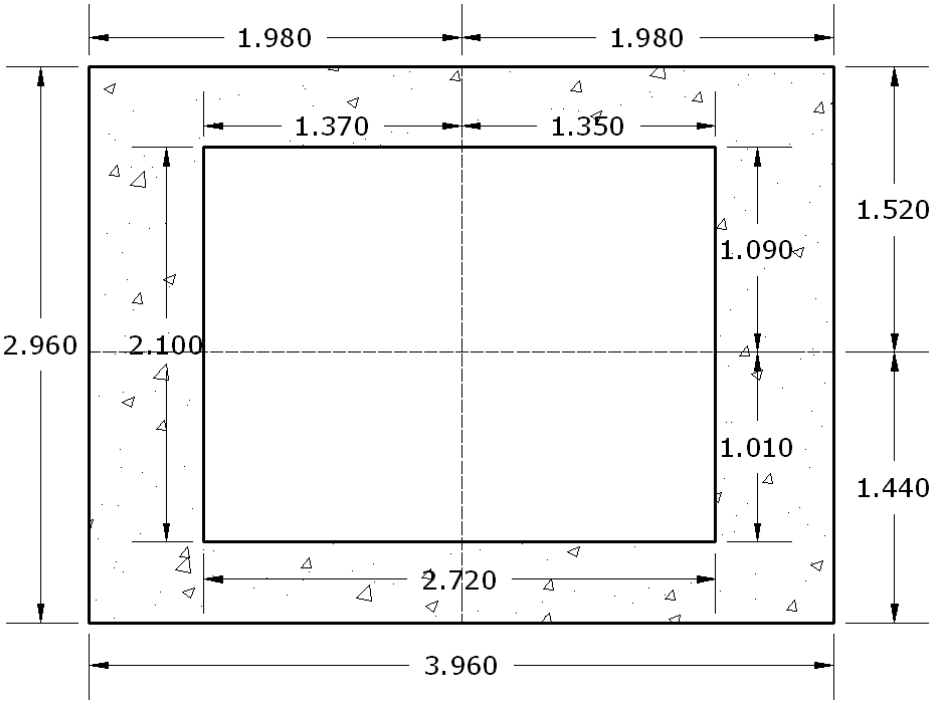


Figure 22 - Geometry of the modelled section

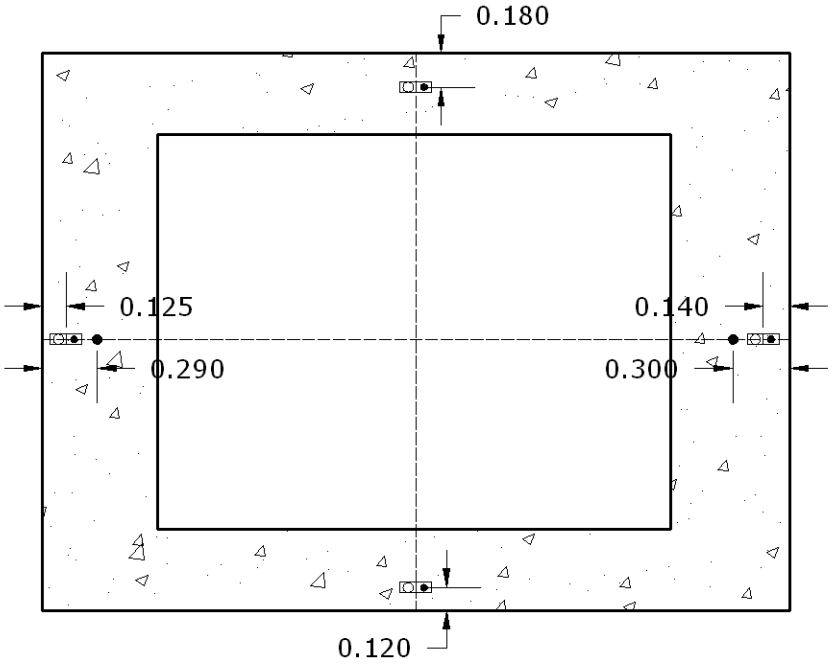


Figure 23 - Positions of the temperature sensors in the modelled section

4.2 The material

The concrete is the only material present in the modelled section. Its thermal properties were obtained by trying to get the best adaptation fit of the values modelled to the measured values, not forgetting the limits of the ranges set by some authors [13]:

- Conductivity: 2,3 W/(m℃)
- Density: 24 kN/m^3
- Specific heat: 0,9 kJ/(kg℃)
- Absorbity coefficient (α): 0,55

It was not necessary to define any other material properties because only a thermal analysis was conducted with this model in this study.

4.3 The mesh

The elements used in the mesh are quadrilateral, which means that they have four nodes and are linear. An approximate dimension of 0,05m was chosen for the element side and the mesh was created automatically. In Figure 24 it is possible to see a quadrilateral element and Figure 25 shows the resulting mesh.

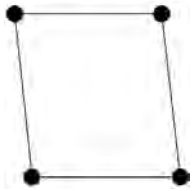


Figure 24 - Quadrilateral element

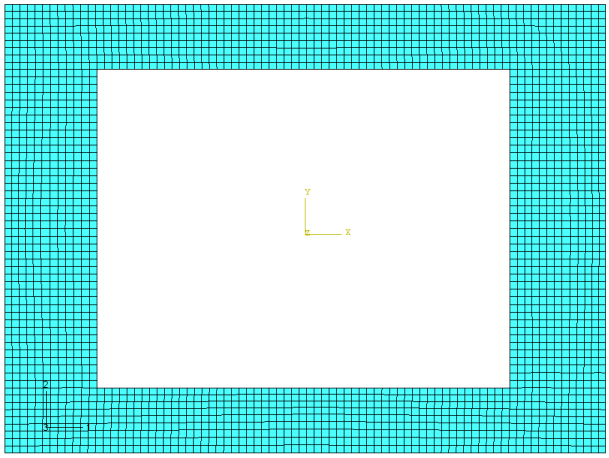


Figure 25 - The geometry of the mesh

4.4 Properties of the model

Some properties of the model that were defined at the beginning of this study are constant for all the load cases and interactions subsequently applied. Those properties are the Stefan-Boltzmann constant to which was assigned the value of 5,729x10^{-8} Wm^{-2}K^{-4} and the absolute zero temperature that takes the value of -273,15ºC.

It was also necessary to define an initial temperature for the entire model at the nodes level. This task was made taking into account the first average values registered for the temperatures in the section. There are three different sets of data because it is easier to run the program for smaller quantities of information. The initial temperature for each set is presented in Table 6.

Set	Period	Initial Temperature (ºC)
1	8th to 20th of April	9
2	21st April to 20th of May	11
3	21st May to 20th of June	14

Table 6 - Initial temperatures for each set of data

Anyhow, this first value is just important to guarantee a rapid convergence of values and the relevance of this choice lasts only for a short period of calculations.

4.5 The load cases and Interactions

Since the main objective of this work is to compare two models: one considering the air influence inside the box and other ignoring it, some actions that will be defined can only be applied to the first case. In order to simplify the future explanations, the first model considering the air inside the box section is called Case A and the second one ignoring this is named Case B.

The load cases and interactions that were used are based on the theory presented in the Heat Transmission chapter. The details of each one are described in the following pages.

4.5.1 Convection

As it was explained before, the convection is based on the Newton's cooling law (Equation (6)):

$$q_c = h_c(T_s - T_{air})$$

To simulate the convection outside the concrete box section, two different types of data were collected: the air temperature and wind speed. The air temperature data can be consulted in Annex II and the wind speed data is only available in the electronic version of this thesis in Annex III. The input information is 20 minutes spaced and includes the air temperature and the convection heat transfer coefficient. This coefficient was obtained applying the transformation suggested by Nevander and Elmarson to the wind data (Equations (10)):

$$h_c = 6 + 4v \ \ if \ v \leq 5ms^{-1}$$

$$h_c = 7{,}4v^{0{,}78} \ if \ v > 5ms^{-1}$$

The surface film convection is the type of interaction of the program that simulates the convection and it is, therefore, used in the models.

In the Figure 26l it is possible to see the red line segments where the outside convection was applied. This convection was used in both cases A and B.

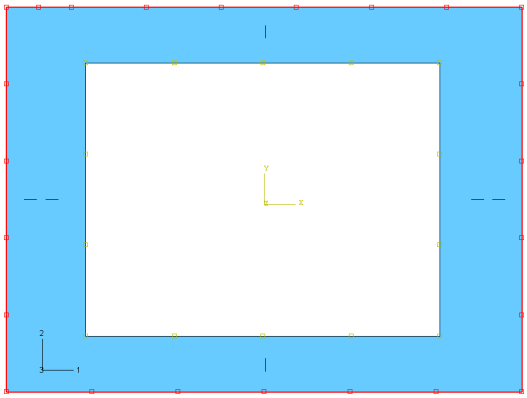


Figure 26 - Convection caused by outside air temperature (Cases A and B).

The simulation of the convection inside the box was made introducing the data collected by a thermometer located in the interior of the section. The inside box air temperature data can be consulted in Annex II. Since the air renovation is very slow here, the wind velocity was taken as zero and consequently the value of 6 W/(m^2℃) was applied to the convection heat transfer coefficient. The red lines in Figure 27 represent the zones where the inside convection was applied (Case A).

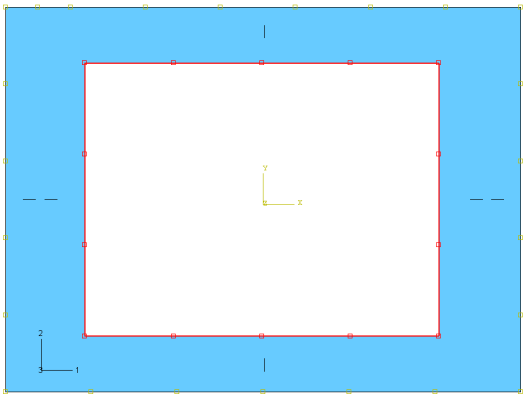


Figure 27 - Convection inside the box cross-section (Case A)

4.5.2 Solar radiation

Solar radiation has a great impact on concrete surfaces, causing a rapid temperature increase at the exposed areas. However, the heat propagation into the concrete thickness is slow [13].

In the concrete surfaces, one part of the solar radiation is absorbed and another is reflected. The reflected energy does not influence the bridge temperature. The amount of radiation absorbed by the concrete depends on the nature and color of the surface. In this model it was used an absorbity coefficient of 0,55 which belongs to the usual range of values – 0,5 to 0,7 [14].

The position of the section is also important in order to understand the solar exposition of each face. As it is possible to see on Figure 21, the left side is turned to West and the right side is turned to East.

The values expected for the global solar radiation in a horizontal surface in a clear day are around 1000 W/m^2 and in a cloudy day is about 300-400 W/m^2 [14].

On the top of the Svinesund Bridge arch a Sunshine Sensor type BF3 (Figure 28) was located. This device measures the global and the diffuse radiation, and the sunshine duration. These values can be consulted in Annex III only available in the electronic version of this thesis.

Figure 28 - Sunshine Sensor type BF3 [22]

The data obtained is for a horizontal surface and can be introduced in that surface without any modification. However it is necessary to proceed to some transformations to determine the global radiation on the vertical walls.

To get the direct radiation on a horizontal surface:

$$I_{d,h} = I_{g,h} - I_{i,h} \quad (37)$$

Where

$I_{d,h}$ - Direct solar radiation on a horizontal surface (W/m^2)

$I_{g,h}$ - Global solar radiation on a horizontal surface (W/m^2)

$I_{i,h}$ - Indirect solar radiation on a horizontal surface (W/m^2)

The determination of the direct solar radiation, $I_{d,n}$, is done using geometrical relations that are represented in Figure 29 and in Equation (38).

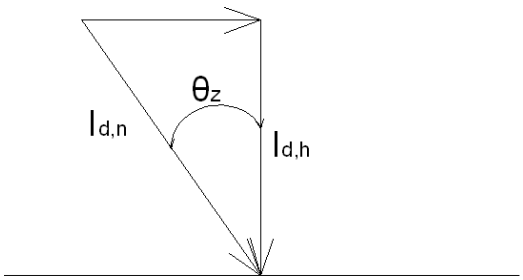


Figure 29 – Geometrical relation between the incident perpendicular radiation on a horizontal surface and the entire component that crosses the atmosphere

$$I_{d,n} = \frac{I_{d,h}}{\cos\theta_z} \quad (38)$$

Where

$I_{d,n}$ – Direct solar radiation (the entire component that crosses the atmosphere) (W/m^2)

θ_z - Zenit angle; angle of incidence on a horizontal surface

It is important to determine the component $I_{d,n}$ since it is used to obtain the solar radiation on surfaces that are not horizontal. The $I_{d,n}$ depends on the zenith angle, θ_z, which is possible to obtain using the Equation (26) and making $\beta = 0$.

$$\theta_z = \sin(\delta)\sin(\lambda) + \cos(\delta)\cos(\lambda)\cos(\omega) \quad (39)$$

The determination of the angles: δ, λ and ω , demands a deeper study that was carried out by Oskar Larsson. The value of the latitude (λ) in Svinesund is 59,06°. The other angle values are not constant, taking different values along the solar day.

The Equation (26) is also used to obtain incident angles for the two extern vertical walls of the arch, one faced to West and other faced to East. The Figure 30 illustrates the horizontal component of the radiation reaching the vertical wall.

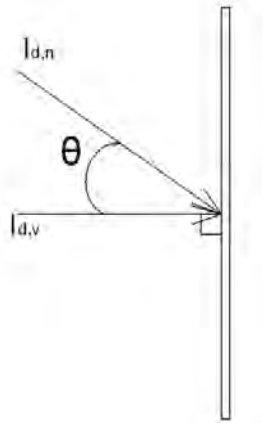


Figure 30 – Geometrical relation to obtain the direct radiation in a vertical wall

$$I_{d,v} = I_{d,n}.\cos\theta \tag{40}$$

Once obtained the direct radiation for the vertical walls ($I_{d,v}$), it is necessary to add the indirect radiation ($I_{i,v}$). This value was set as 50% of the horizontal indirect radiation ($I_{d,h}$).

Both the zenith angles and the incidence angles were determined for one hour intervals during the same period of time as the collection of the other input data.

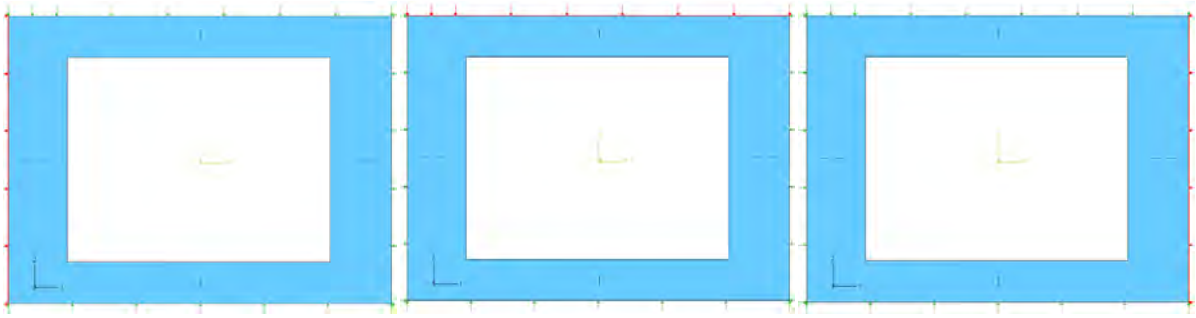


Figure 31 - The direct radiation in the west wall (left), in the top surface (centre) and in the east wall (right)

The values for the direct solar radiation introduced in each region were obtained using the expressions explained previously. The solar radiation is simulated in a load case named *Surface heat flux*.

The attribution of values to ground radiation is more complex. The surrounding environment has an important role and there is an empiric expression that can represent the amount of radiations that reaches each surface after successive reflections:

$$I_g = I_h . \rho_g \left(\frac{1 - \cos\beta}{2}\right) \quad (41)$$

This expression can be used when the analysis is done in vertical walls but it becomes null when it is used in horizontal surfaces. However, the bottom face of the box cross section also receives a residual part of the ground radiation and therefore it was decide attribute to this face 20% of $I_h . \rho_g$ [14].

The ground factor (ρ_g) was taken as 0,3. In the Figure 32 the regions where the ground radiation was considered are presented. The vertical faces are affected by higher radiation because, generally, there are more reflected rays of light which can reach these surfaces than those that can reach the bottom face. This phenomenon is usually known as view factor [14].

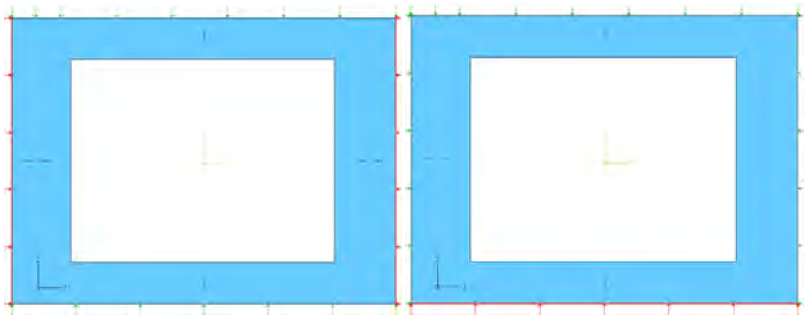


Figure 32 - The ground radiation in the vertical surfaces (left side) and in the bottom face (right side)

The solar radiation can be decomposed in three components: the indirect (I_i), the direct (I_d) and the ground radiation (I_g), but not all the components are present in each surface. In the following list it is possible to see which type of radiation affects the different surfaces:

- Top: $I_{d,h} + I_{i,h}$
- Vertical walls: $I_{d,v} + I_{i,v} + I_{g,v}$
- Bottom: $I_{g,h}$

4.5.3 Radiative Heat transfer

In this model there are two different types of radiative heat transfer being simulated: one that represents the heat interactions between the cross section and the atmosphere and other, at a smaller scale, which shows the heat exchanges among the inside walls of the box cross-section.

The bigger values, obtained for the interaction between the concrete surface and the atmosphere, usually occur during the night when the concrete releases its heat to the sky which is much colder.

To simulate this radiative heat transfer, it was created two interactions of the type “surface radiation to ambient”: one for the top face and one for the lateral surfaces (Figure 34). The value of the thermal

emissivity, ε, was set to 0,9 and the Stefan-Boltzmann constant used, σ, was the one defined in the beginning for the entire model. Stefan-Boltzmann's law can be written the following way (Equation (16)):

$$q_r = \varepsilon\sigma\left(T_s^4 - T_{sky}^4\right)$$

The sky temperature (T_{sky}) is derived from the Stefan-Boltzman written above. It is a fictitious temperature for the sky, which represents the temperature the sky would have if it was a surface. Obtaining of the sky temperature is not an immediate process and requires some data transformation. A device located on the top part of the section S25, a pyrgeometer (Figure 33), measures the incoming long-wave radiation from the sky (q_{sky}). Using that heat flux it is possible to calculate the sky temperature. The following expressions show how T_{sky} was obtained in this case [13].

$$q_{sky} = \varepsilon\sigma T_{sky}^4 \longrightarrow T_{sky} = \sqrt[4]{\frac{q_{sky}}{\varepsilon\sigma}} \quad (42)$$

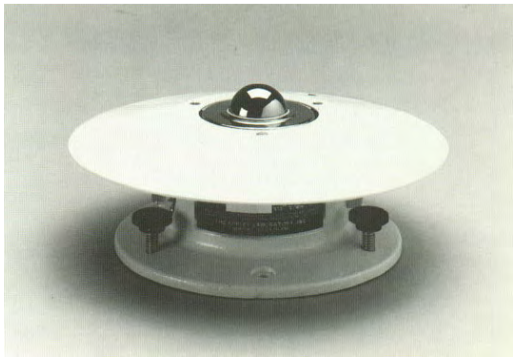


Figure 33 – Pyrgeometer [20]

The heat transfers between the top surface and the atmosphere are maximum because this face is horizontal and it is completely turned to the welkin. The vertical faces are not only subjected to heat exchanges with the sky but also with the earth. The surrounding ground also affects these surfaces and therefore the values for radiative heat transference in the vertical surfaces are lower, in modulus, than the values in the top surface. One way of considering this is to use an average temperature (T_{sky}^*) in the vertical walls instead of the sky temperature:

$$T_{sky}^* = \frac{T_{sky} + T_{air}}{2} \quad (43)$$

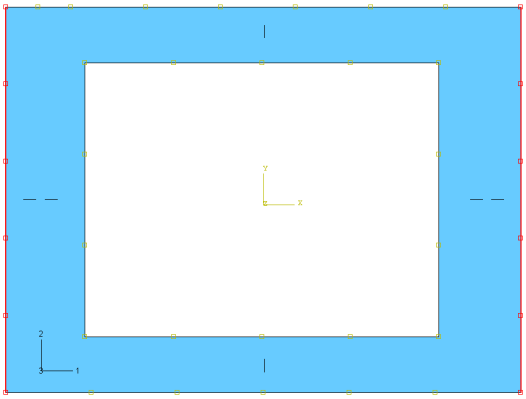


Figure 34 - Radiative heat transfer, top and vertical faces (Cases A and B)

The simulation of the radiative heat transfer that happens inside the box between the four concrete walls (Figure 35) has similar interactions to the one represented in Figure 34. The air temperature introduced in this part of the model is the one obtained from the thermometer inside the box. This is a simplified way of modeling a more complex phenomenon. In reality the walls do not have the same temperature as the internal air and will affect each other in a different way then in this model. The internal interaction was only considered in Case A.

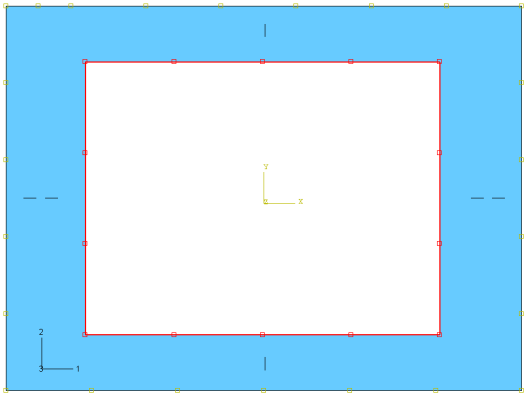


Figure 35 - Radiative heat transference inside the box cross-section (Case A)

5 Numerical results

5.1 Data Organization

All data was collected during two and a half months and was grouped in three sets (Table 7). Dividing the information in sets is advantageous not only because it is faster to run fewer steps but also because it is easier to analyze the results.

Set	Period
1	8th to 20th of April
2	21st April to 20th of May
3	21st May to 20th of June

Table 7 - Period of each one of the three sets

It is important to refer that the conclusions will be more solid if more data is used. The limit of two and a half months was settled because it was the amount of available data until the moment of the beginning of this report.

Set 1 presents colder temperatures and it can be called 'winter period'; opposed to this, Set 3 will be known as 'summer period'.

The model built in Brigade software indicates the value of the temperature for all the places where the temperature sensors are located (Table 8). The Figure 21 from the previous chapter can help to visualize the location of the six sensors.

Initials	Location	Position of the surface
BO	Bottom	Horizontal
EO	East (outside)	Vertical
EM	East (middle)	Vertical
TO	Top	Horizontal
WO	West (outside)	Vertical
WM	West (middle)	Vertical

Table 8 - The initials of the temperature sensors

For each of the sets, two models were run: Case A with air interaction inside the box and Case B not considering the air inside the box.

With the obtained results, graphics were built comparing the measured and modelled temperatures at the locations of the temperature sensors. There are 36 graphics, this amount results from the number of sensors (six), time periods (three) and quantity of studied cases (two). Not all the graphics are relevant to the thesis, therefore one part is presented in the following pages and another part can be consulted in the Annex I.

5.2 Graphics comparing modelled and measured values

It is important to analyse the temperature behaviour of the cross-section four walls. To concretize this goal the top (TO), the bottom (BO), the west outside (WO) and the east outside (EO) sensors were used. The inclusion of the graphics referred to west medium (WM) and East medium (EM) in the thesis would not contribute to obtain more information beyond what is obtained with to WO and EO respectively.

Using the same arguments, it did not seem important to represent in the main part of the dissertation all the three sets of time studied. The main conclusions about the difference between the time periods can be taken if a comparison between winter and summer (Set 1 and Set 3) is done in two walls (e.g. TO and BO).

As the main objective of this study is to take conclusions about the air temperature influence inside the box cross-section, the analysis made at each sensor level always includes the two cases A and B.

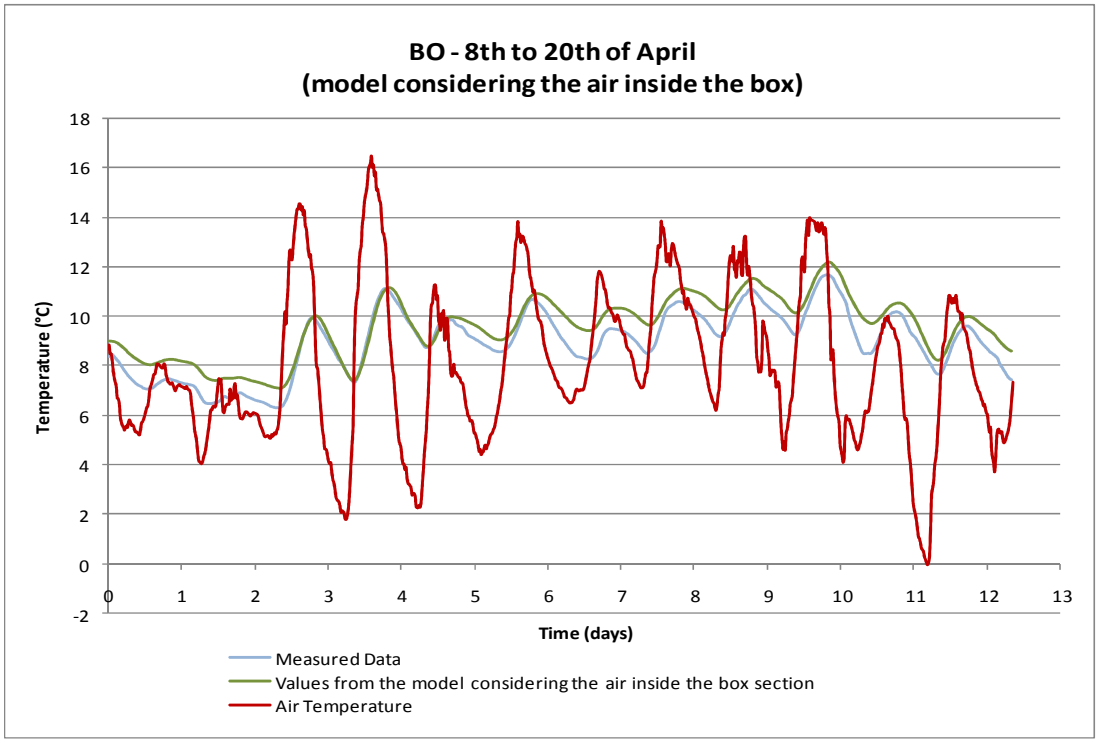
The Table 9 contains a summary of the graphics presented in the following pages. It seemed important to add the air temperature to compare to the temperature inside the concrete walls.

Reference	Temperature sensor	Case	Set
Graphic 1	Bottom	A	1
Graphic 2	Bottom	B	1
Graphic 3	Bottom	A	3
Graphic 4	Bottom	B	3
Graphic 5	Top	A	1
Graphic 6	Top	B	1
Graphic 7	Top	A	3
Graphic 8	Top	B	3
Graphic 9	West outside	A	1
Graphic 10	West outside	B	1
Graphic 11	East outside	A	1
Graphic 12	East outside	B	1

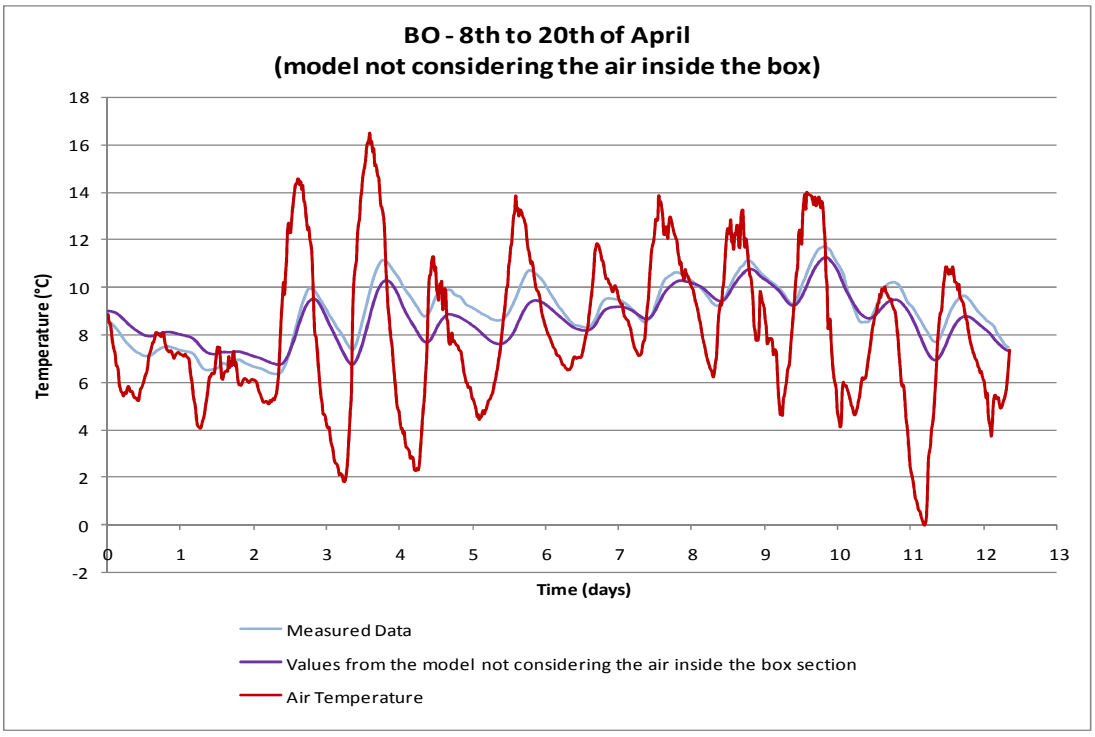
Table 9 – Index of the graphics it is possible to find in the following pages

The containing elements of each graphic are:

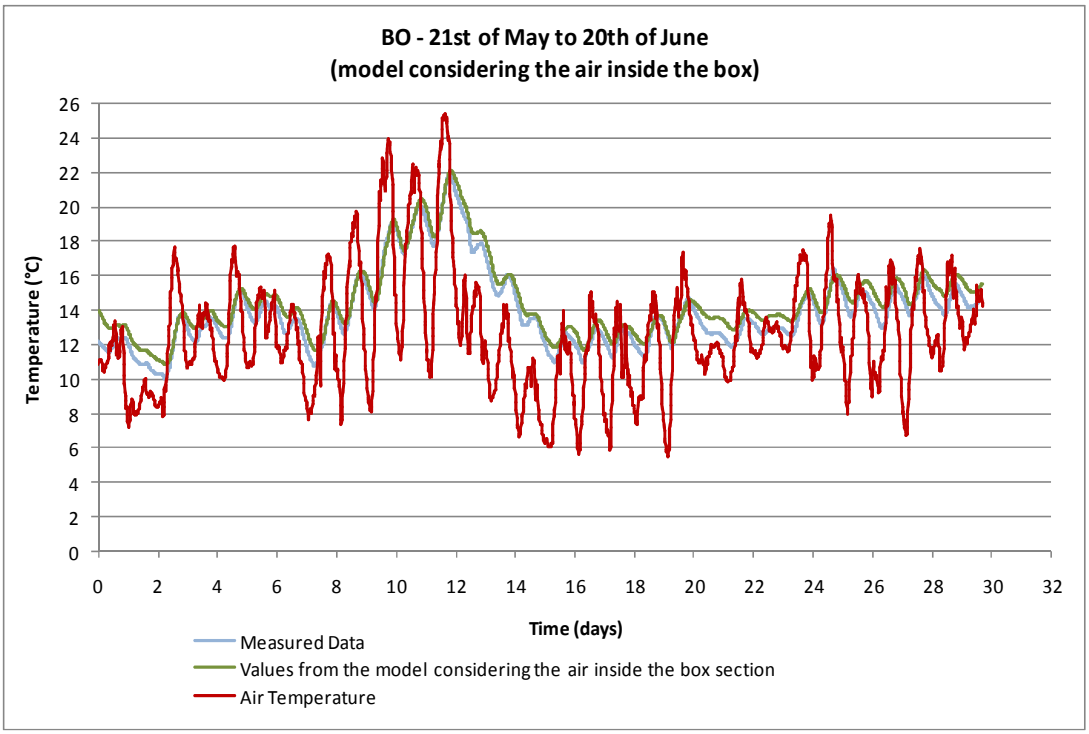
- The measured temperature, obtained using thermal sensors inside the concrete walls, which is represented by a blue line;
- The resulted values from the computational model considering the inside box air temperature (green line) or ignoring it (violet line);
- The outside air temperature was added to the graphics which belong to the thesis body and it is represented by a red line.



Graphic 1 – Temperatures in the sensor located in the bottom wall (BO) of the cross-section during Set 1 and for the situation of Case A



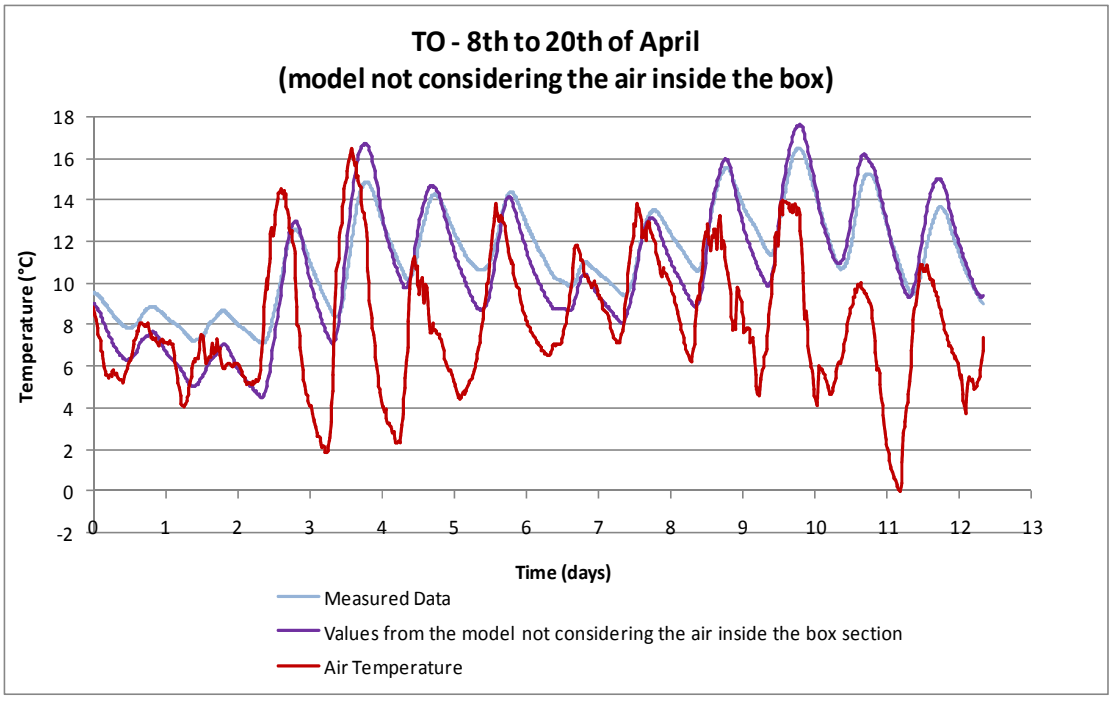
Graphic 2 - Temperatures in the sensor located in the bottom wall (BO) of the cross-section during Set 1 and for the situation of Case B



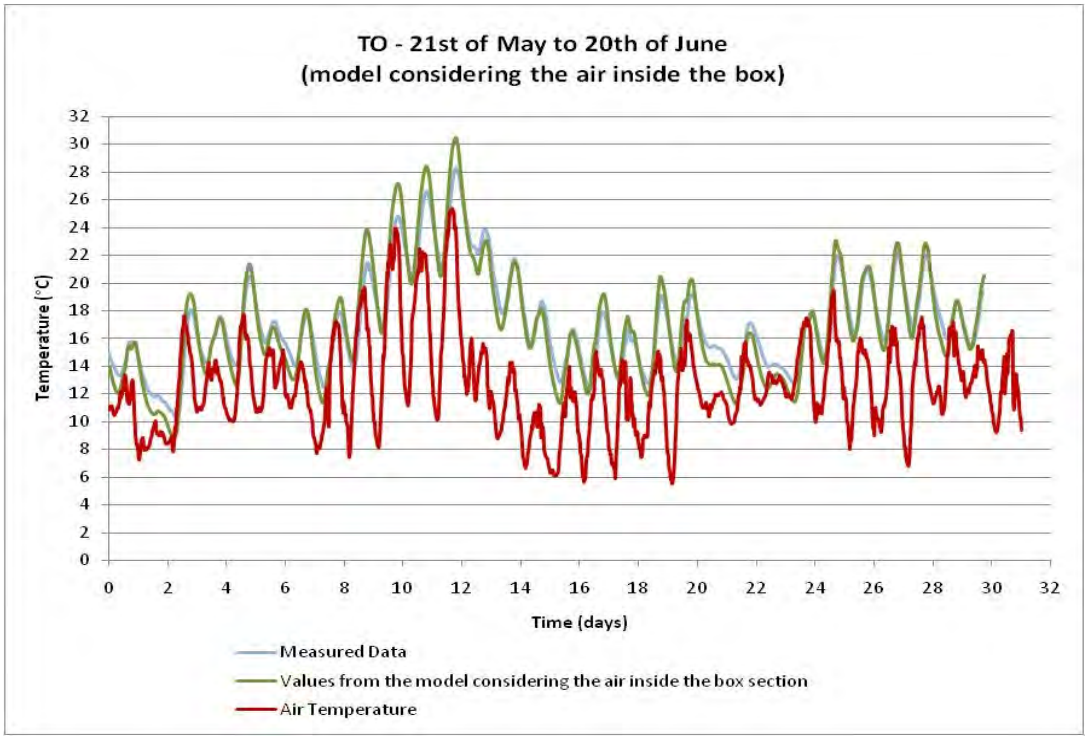
Graphic 3 - Temperatures in the sensor located in the bottom wall (BO) of the cross-section during Set 3 and for the situation of Case A

Graphic 4 - Temperatures in the sensor located in the bottom wall (BO) of the cross-section during Set 3 and for the situation of Case B

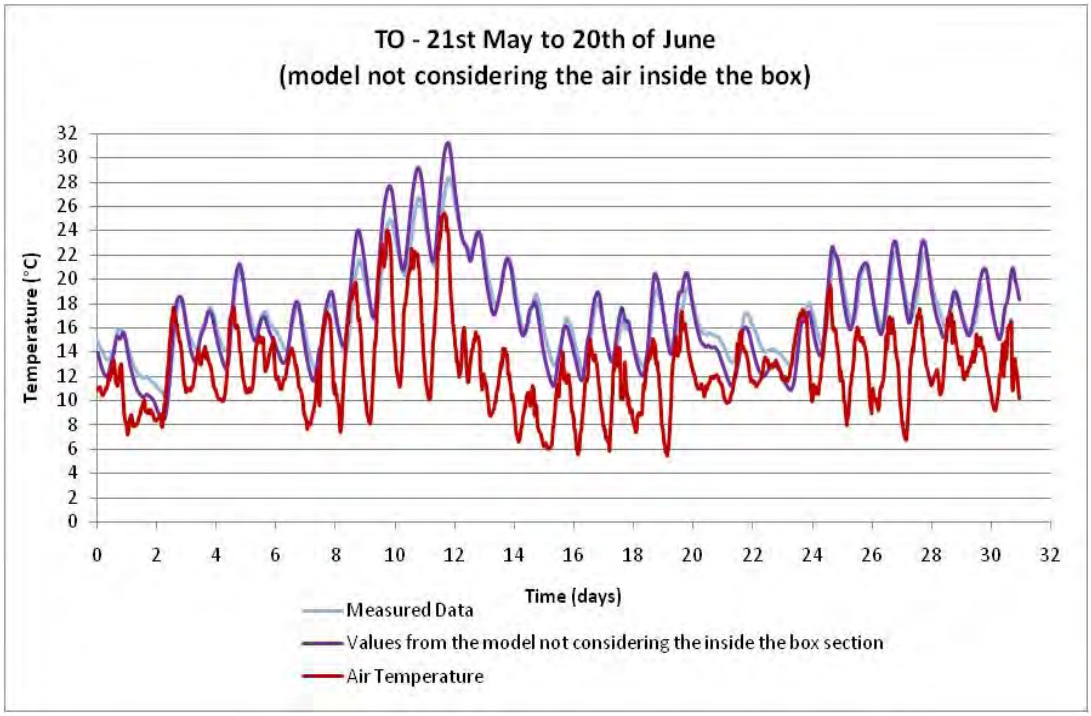
Graphic 5 - Temperatures in the sensor located in the top wall (TO) of the cross-section during Set 1 and for the situation of Case A



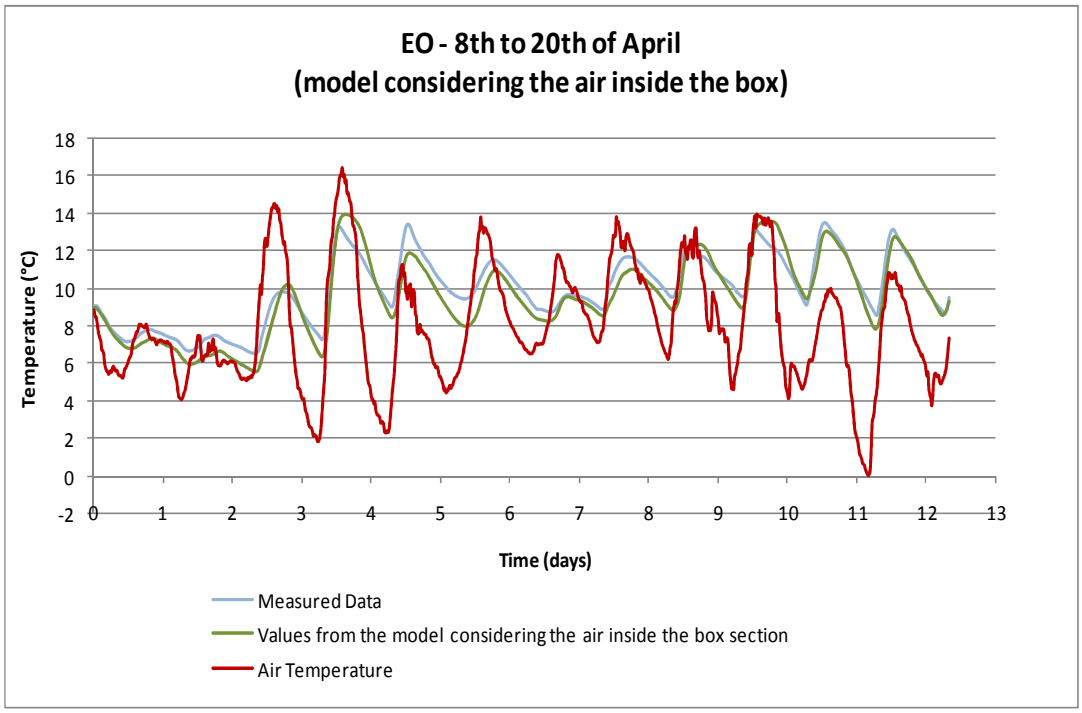
Graphic 6 - Temperatures in the sensor located in the top wall (TO) of the cross-section during Set 1 and for the situation of Case B



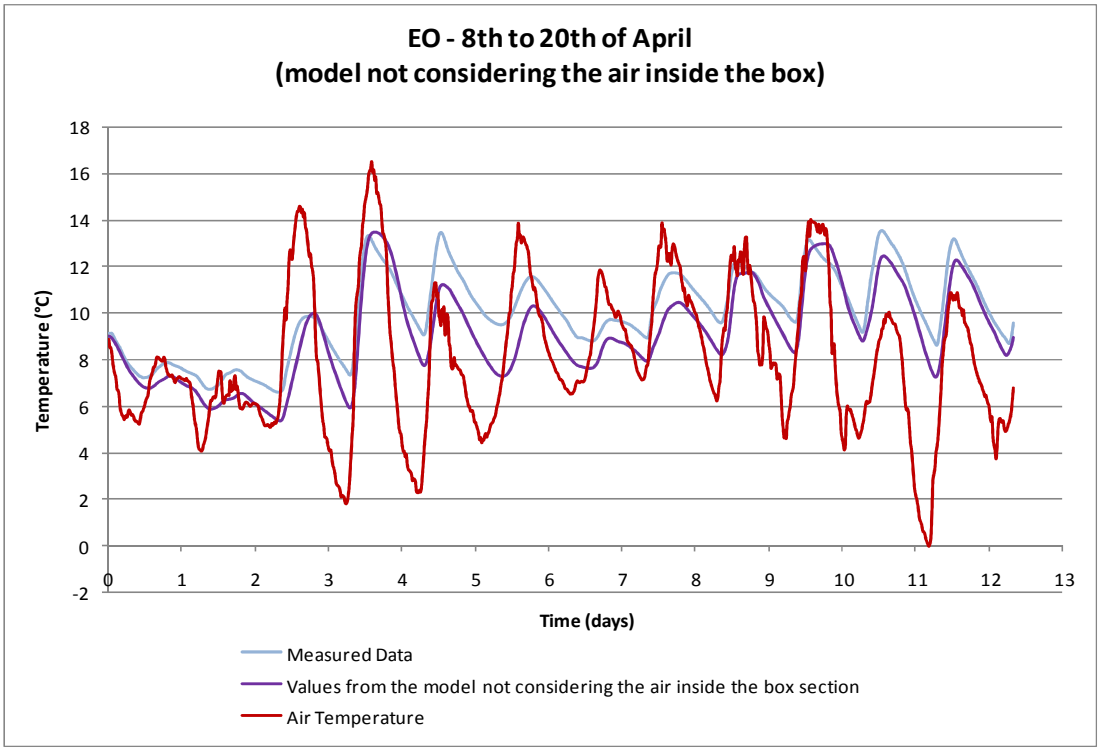
Graphic 7 - Temperatures in the sensor located in the top wall (TO) of the cross-section during Set 3 and for the situation of Case A



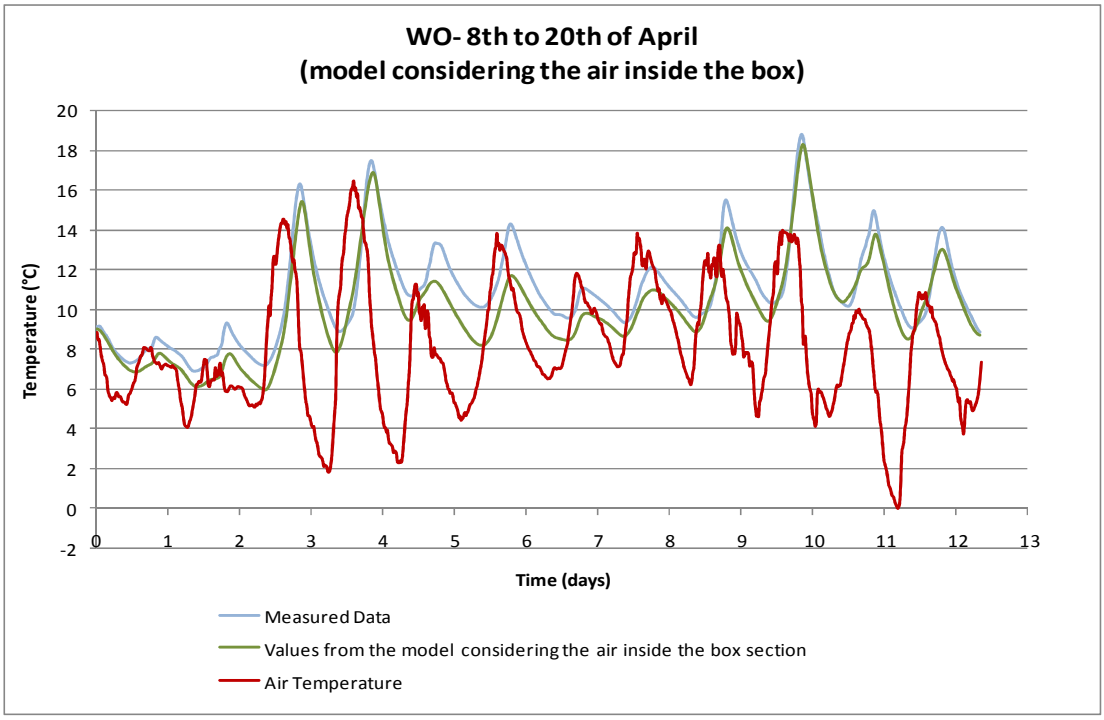
Graphic 8 - Temperatures in the sensor located in the top wall (TO) of the cross-section during Set 3 and for the situation of Case B



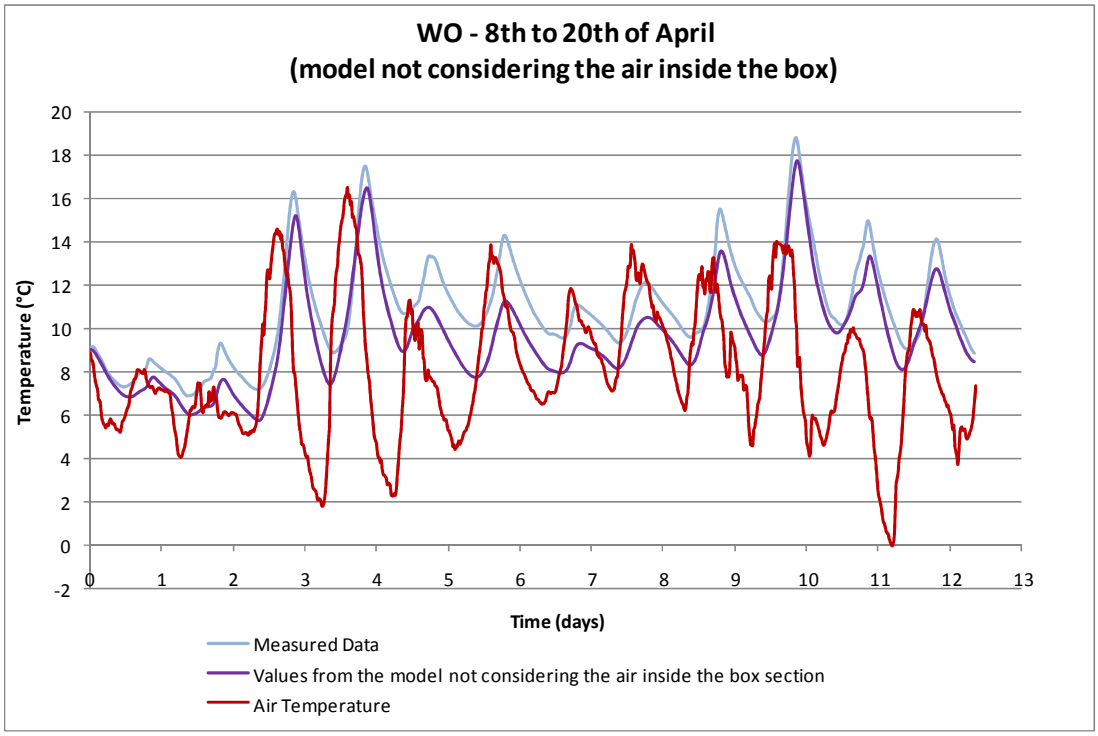
Graphic 9 - Temperatures in the sensor located in the vertical east wall (EO) of the cross-section during Set 1 and for the situation of Case A



Graphic 10 - Temperatures in the sensor located in the vertical east wall (EO) of the cross-section during Set 1 and for the situation of Case B



Graphic 11 - Temperatures in the sensor located in the vertical west wall (WO) of the cross-section during Set 1 and for the situation of Case A



Graphic 12 - Temperatures in the sensor located in the vertical west wall (WO) of the cross-section during Set 1 and for the situation of Case B

5.2.1 Quality of the model - analysing the graphics

Looking to the graphics presented above, it is possible to make an immediate quality evaluation. A simple analysis to the graphics was conducted, in order to take some conclusions about the model validity.

5.2.1.1 The Bottom wall (Graphic 1, Graphic 2, Graphic 3, Graphic 4)

When the air inside the box cross-section is considered (Case A), the concrete temperatures are a little overestimated. The Case B shows a violet line which is almost all the time bellow the blue line. These can be seen comparing Graphic 1 with Graphic 2 and Graphic 3 with Graphic 4.

As it was said before, there are several factors and actions affecting the thermal behaviour in concrete. The air temperature and the solar radiation are the most important, but in this wall the second one is represented by a residual component resulted from the ground radiation. The bottom wall is practically only influenced by the air temperature. Despite the temperature delay, that is also analyzed in this thesis, both winter and summer situations show the air temperature line behaving the same way as the temperature inside the concrete wall. The maximum differences do not exceed the 6℃ and sometimes the concrete temperature equals the outside value.

The differences between the weather stations are not only visible through the higher absolute temperatures and daily temperature amplitudes during the summer. The distribution of the air temperature values around the concrete temperature is more balanced in the winter than in the summer, in other words, during the warmer station, the average air temperature is lower than the average concrete temperature. This happens because during the summer, the solar radiation increases giving a bigger contribution to the thermal behaviour in the concrete.

5.2.1.2 The Top wall (Graphic 5, Graphic 6, Graphic 7 and Graphic 8)

The solar radiation has a central contribution changing the Top wall temperature. The other factors have lower influence and it seems almost irrelevant to consider or not the air temperature inside the box cross-section. The difference between the green and violet lines (comparing Graphic 5 with Graphic 6 and Graphic 7 with Graphic 8) are very small and their behaviour is very identical.

The model follows the real values showing a bad fit when the temperatures are very low (visible in the first two days of the winter set), both the maximum and minimum extremes are over estimated by the model. The problem might be related with the consideration of an absorption coefficient in the model greater than the real value.

The difference detected between the weather stations in the bottom wall is even more evident in top wall. In fact, the winter set is affected by the radiation, but the big contribution of this factor is more obvious in the summer set. Comparing Graphic 5 and Graphic 6 with Graphic 7 and Graphic 8 it is possible to see the air temperature is much lower in the last two.

5.2.1.3 The East wall (Graphic 9 and Graphic 10)

Representing the summer graphics for both the East and West walls would not bring anything new to the conclusions taken using the Bottom and Top walls. For that reason there are only two graphics for each one of the vertical walls.

In East wall there seems to exist a better adaptation when the air inside the box section is considered. However in both cases A and B a bad fit is verified when lower temperatures are measured in the real section.

This wall is quite affected by radiation and it is possible to understand the thermal behaviour cannot be entirely explained by the air temperature function.

5.2.1.4 The West wall (Graphic 11 and Graphic 12)

The West wall has a level of adaptation similar to the one verified in the East wall. The adjustment is quite good for higher temperatures but the lower temperatures are underestimated. Analysing the contribution given by the air inside the box cross-section, the fit is better in case A, because in case B the maximum extremes are lower than the measured values.

This wall is more affected by the solar radiation than the East wall, because it is exposed to it during more hours. This larger contribution of the solar radiation is supported by a bigger difference between the air temperature and the concrete in WO than in EO.

5.2.2 Quality of the model – values comparison

The analysis made in 5.2.1 was conducted studying the graphics with subjective criteria. To validate the previous evaluation a more accurate analysis was made and is presented in this subchapter.

5.2.2.1 Least Squares

The least square method (LS) is usually utilised in statistics to fit data, approximating solutions of overdeterminated systems [23]. In this situation, LS was used to compare the situations represented in the 36 graphics previously presented. A smaller value of LS reveals a better fit when a comparison between a Case A and Case B is conducted. LS is calculated using the following expression:

$$LS = \sum (T_{model} - T_{measured})^2 \quad (44)$$

Where

LS – Least square value for a certain combination of set, case and thermal sensor (dimensionless)

T_{model} - Temperature taken from the model (ºC)

$T_{measured}$ - Temperature read by the thermal sensors (ºC)

Table 10 contains the LS for the 36 situation illustrated in the graphics. For each cell of this table, Case A and B were considered, putting some emphasis ('bold') in the best value.

The value of LS depends on the quantity of elements modelled in each set because it is calculated using a summation. The absolute value of LS cannot be compared to numbers from a different set, since each set has a different amount of elements.

		Set 1 8th to 20th of April	Set 2 21st of April to 20th of May	Set 3 21st of May to 20th of June
BO	Case A	879	2543	**1795**
	Case B	**702**	**2035**	3720
EO	Case A	**996**	5061	2464
	Case B	2184	**4437**	**2220**
EM	Case A	**231**	2928	1216
	Case B	1808	**1863**	**563**
TO	Case A	**2064**	**3612**	**5423**
	Case B	2685	4359	6555
WO	Case A	**1921**	1819	2818
	Case B	3450	**1798**	**2486**
WM	Case A	**564**	**1208**	1766
	Case B	2600	1277	**1060**

Table 10 - Least square method – Comparison between Case A (with air interaction) and Case B (without air interaction)

Looking at Table 10 it is not simple to understand immediately which case is better. The Table 11 presents the resume of the contents from Table 10, showing the number of better cases (A or B) for each set.

Sets	Cases	Number of times this case is better
Set 1	Case A	5
	Case B	1
Set 2	Case A	2
	Case B	4
Set 3	Case A	3
	Case B	3

Table 11 – Resume of the contents of the previous table

It is not evident which model provides a better adaptation (Case A or B), since each leads different conclusions.

The content of Table 11 do not take into account the quality of the values from Table 10 because the 'break even' is ignored. For instance, in the entrances of (EM, Set 1) or (BO, Set 3) the 'winner' is

evident, however in cells like (WO, Set 2) or (WM, Set 2) a break even could have been considered, once the difference between the cases is really small.

5.2.2.2 *Average temperature difference*

The average temperature difference, ATD, was made using Equation (45) and it allows the verification of the relative position between the modelled and measured functions.

$$ATD = \sum^{n} \frac{(T_{model} - T_{measured})}{n} \quad (45)$$

Where

ATD – Average Temperature difference (℃)

T_{model} - Temperature taken from the model (℃)

$T_{measured}$ - Temperature read by the thermal sensors (℃)

n – Number of values in each set

		Set 1 8th to 20th of April	Set 2 21st of April to 20th of May	Set 3 21st of May to 20th of June
BO	Case A	**0.6**	**0.6**	**0.6**
	Case B	-0.3	-0.3	-0.7
EO	Case A	**-0.4**	**0.6**	**0.2**
	Case B	-0.9	0.5	0.0
EM	Case A	**-0.0**	**0.7**	**0.4**
	Case B	-0.9	0.4	0.0
TO	Case A	**-0.3**	0.2	-0.1
	Case B	-0.6	**0.5**	**0.0**
WO	Case A	**-0.8**	**0.3**	**0.4**
	Case B	-1.2	0.2	0.3
WM	Case A	**-0.4**	0.4	**0.6**
	Case B	-1.1	0.4	0.3

Table 12 – Average difference between the temperatures of the model and reality (℃)

In Table 12 positive values for ATD mean the model gives greater values than the reality and negative ones mean the opposite. When the absolute value is close to zero, that might suggest the adaptation of the model to reality is quite good.

In order to illustrate the content of this table, the comparison between the cell (BO, Set 1) and the Graphic 1 and Graphic 2 shall be done. On one hand the value 0.6 (positive) means that in the first graphic the modelled function is predominantly bigger than reality, on the other hand the value -0.3 (negative) indicates a modelled function that gives values inferior to the measured ones. The same kind of conclusion can be taken comparing the entrance (BO, Set 3) to Graphic 3 and Graphic 4.

The line corresponding to the top wall (TO) shows insignificant differences between Case A and Case B. In fact, this corroborates the analysis made in 5.2.1.2 where it was said that the contribution of the inside air was irrelevant.

When a model is built to represent a real behaviour, the extreme situations must be well modelled. In this case, it is important to verify the maximum temperatures reached by the thermal sensors are well represented by the computational model. A bigger value for ATD might guarantee the maximum values of temperature are better modelled, in other words, this almost ensures the model gives bigger extremes than the real values, giving some safety margin. Seen from this point of view, the values in each entrance of Table 12 were compared, and the bigger values were enhanced using 'bold'. The Case A proved to be better, except in Top wall, where it was already found, the influence of the air inside the box cross-section is minimal.

5.3 Graphics comparing the walls

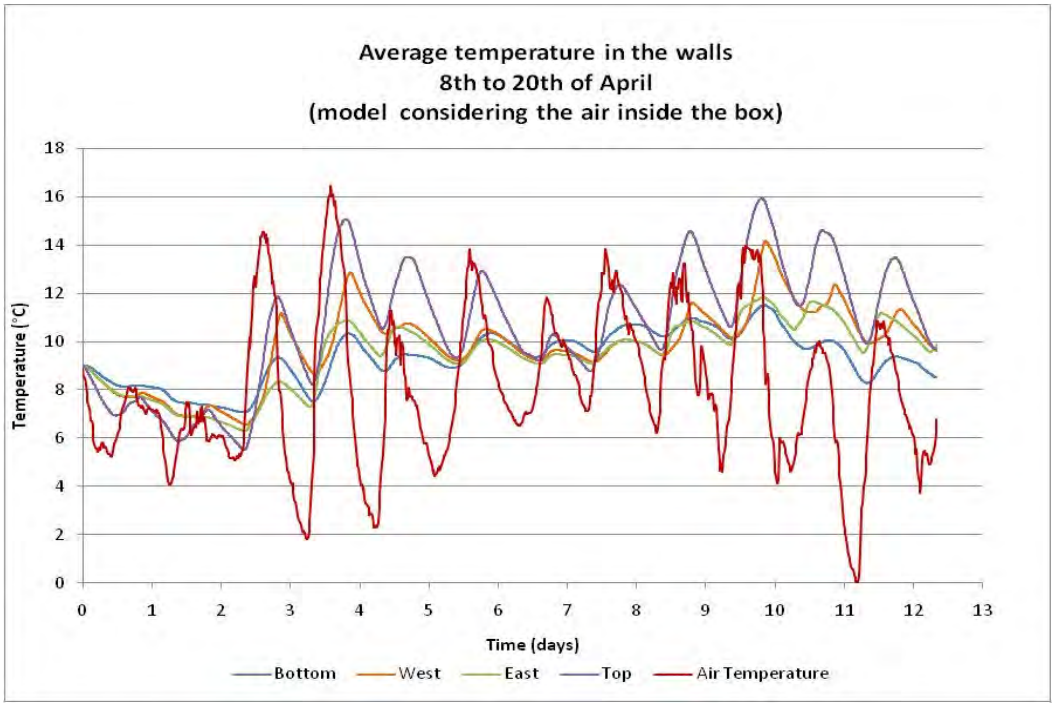
The numerical model chapter shows the mesh built to represent the cross-section (Figure 25). In this chapter, the divisions of that mesh were used to take various temperature values in each node along the four walls thicknesses. Those values were taken from a 'line' in the middle of each wall.

The following four graphics contain the air temperature and the average temperature in each wall, calculated using the values in the nodes,

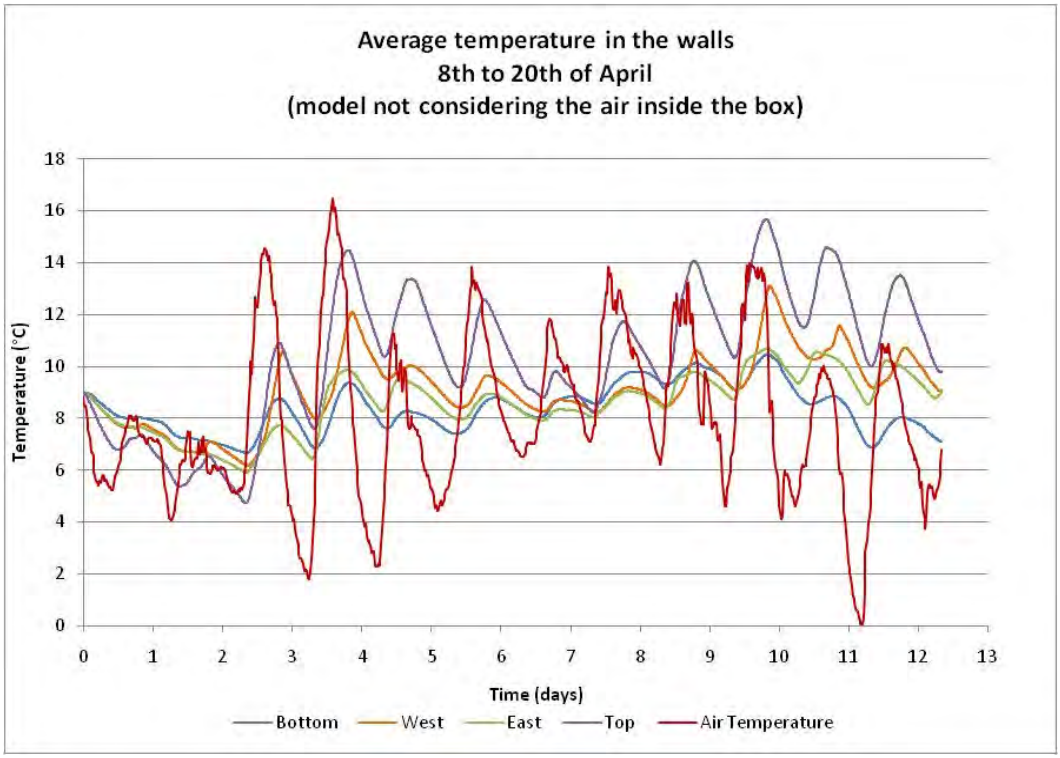
The analysis made in this chapter was made only for the 'winter' and 'summer periods' (Set 1 and Set 2). In order to facilitate the consultation of the graphics from this subchapter the Table 13 is presented.

Reference	Case	Set
Graphic 13	A	1
Graphic 14	B	1
Graphic 15	A	3
Graphic 16	B	3

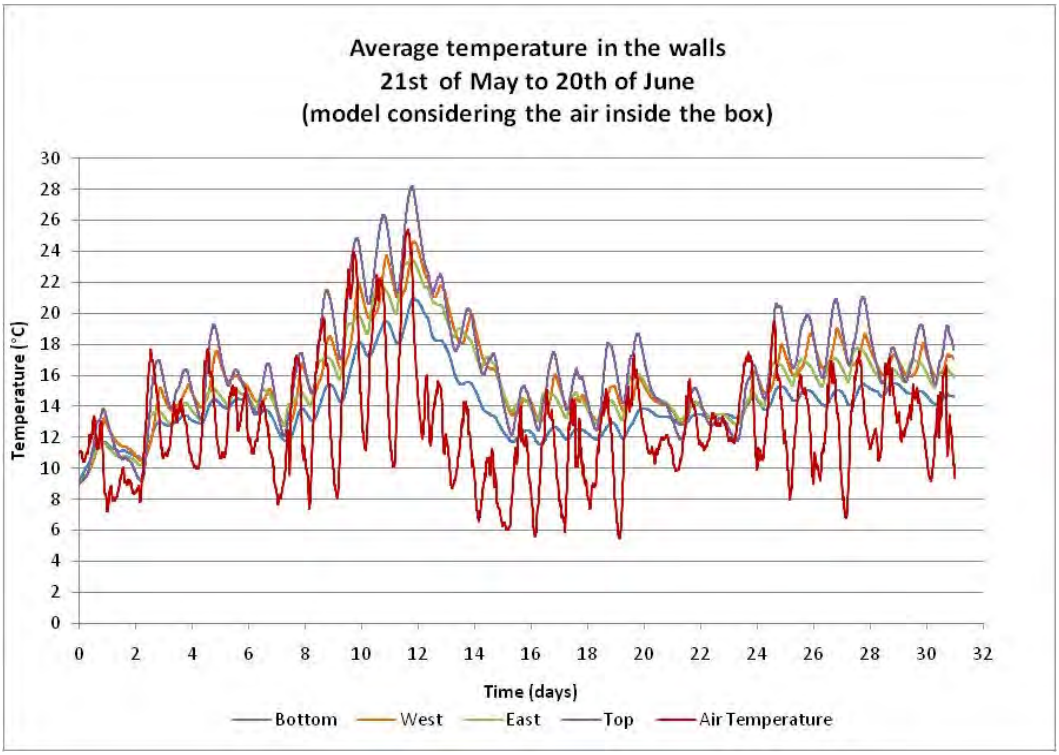
Table 13 - Index of the graphics it is possible to find in the following pages



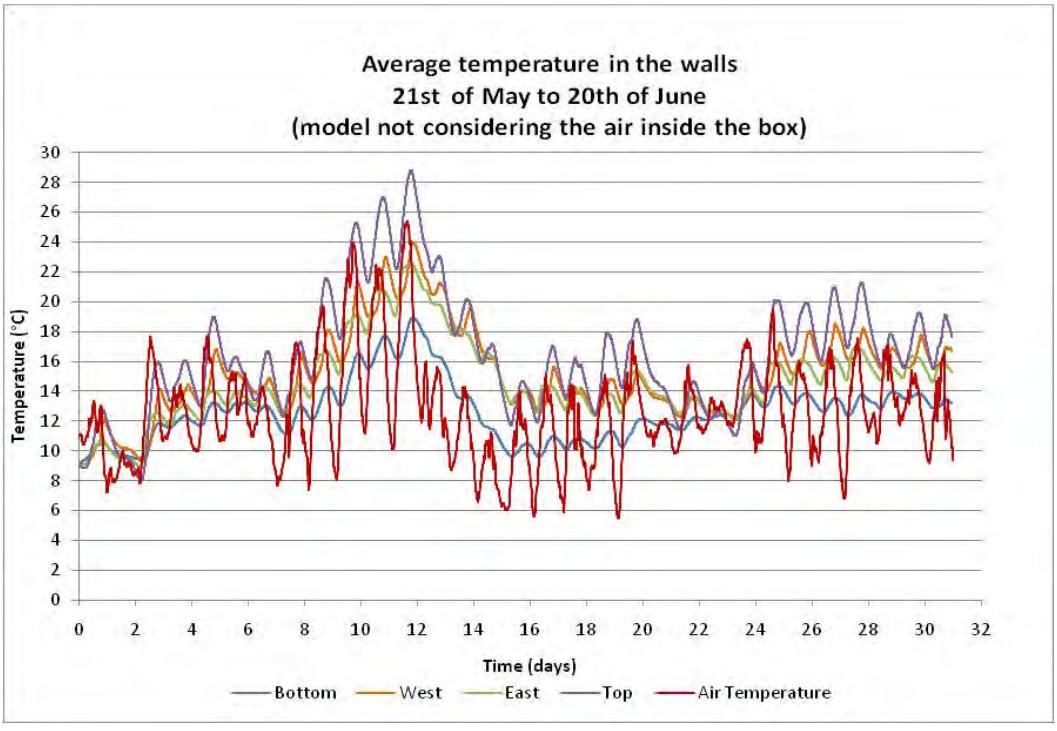
Graphic 13 – Colour lines representing the average temperature in the walls and the air temperature – Set 1 and Case A



Graphic 14 – Colour lines representing the average temperature in the walls and the air temperature – Set 1 and Case B



Graphic 15 – Colour lines representing the average temperature in the walls and the air temperature – Set 3 and Case A



Graphic 16 – Colour lines representing the average temperature in the walls and the air temperature – Set 3 and Case B

When the air inside the box cross-section, Case A, is considered, the temperature difference between the walls is reduced. Comparing Graphic 13 with Graphic 14 or Graphic 15 with Graphic 16, it is possible to verify that in Case A the warmer wall (Top) presents a lower temperature, and the colder wall (Bottom) presents a higher temperature than in Case B. This could suggest that the inclusion of the air inside the cross-section helps the system's equilibrium. However, it is interesting to observe that for higher air temperature amplitudes, the difference between the temperature walls increases (e.g. Graphic 13 – comparing the period between the fourth and the sixth day with the period which includes the tenth and twelfth days).

The order of the average temperature in the walls is the expected: the warmest one is the Top, the second is the West, the third is the East and the last is the Bottom. The Top is warmer because besides the air temperature it receives a big component of solar radiation. The West wall is warmer than the East wall because it is exposed to solar radiation when the air base temperature is higher. The bottom wall only receives a residual component of the solar radiation, less than any of the other three walls, since this component is very important it is easy to accept that this wall has the lowest temperatures.

Comparing the winter graphics (Set 1) to the summer ones (Set 3), the reduction of the air temperature relatively to the wall temperatures is, once again, verified. The explanation is that in summer the solar radiation has a bigger weight influencing the wall temperature, reducing the importance of the air temperature.

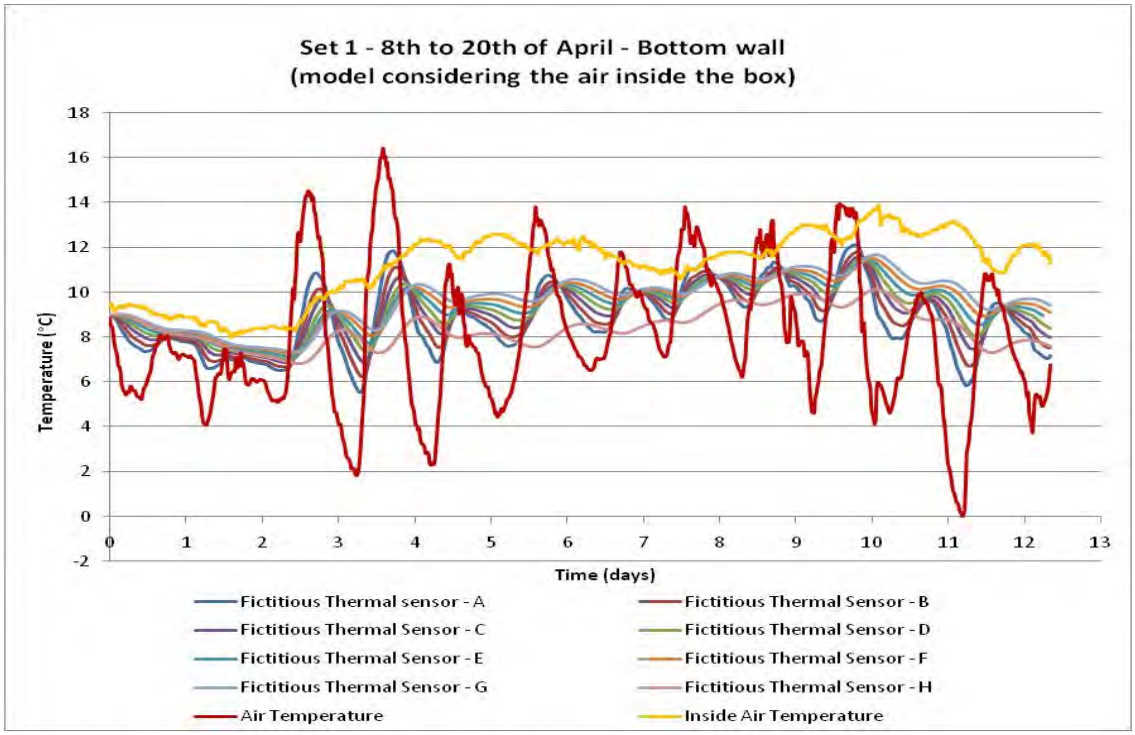
5.4 Graphics showing the temperature evolution along the walls thickness

As it was referred in 5.3, temperatures were taken from the model along the walls thickness. In this subchapter the evolution of these temperatures is studied. Despite the existence of four walls, three sets and two cases, only two walls (Bottom and Top) and one of the sets (Set 1) were considered.

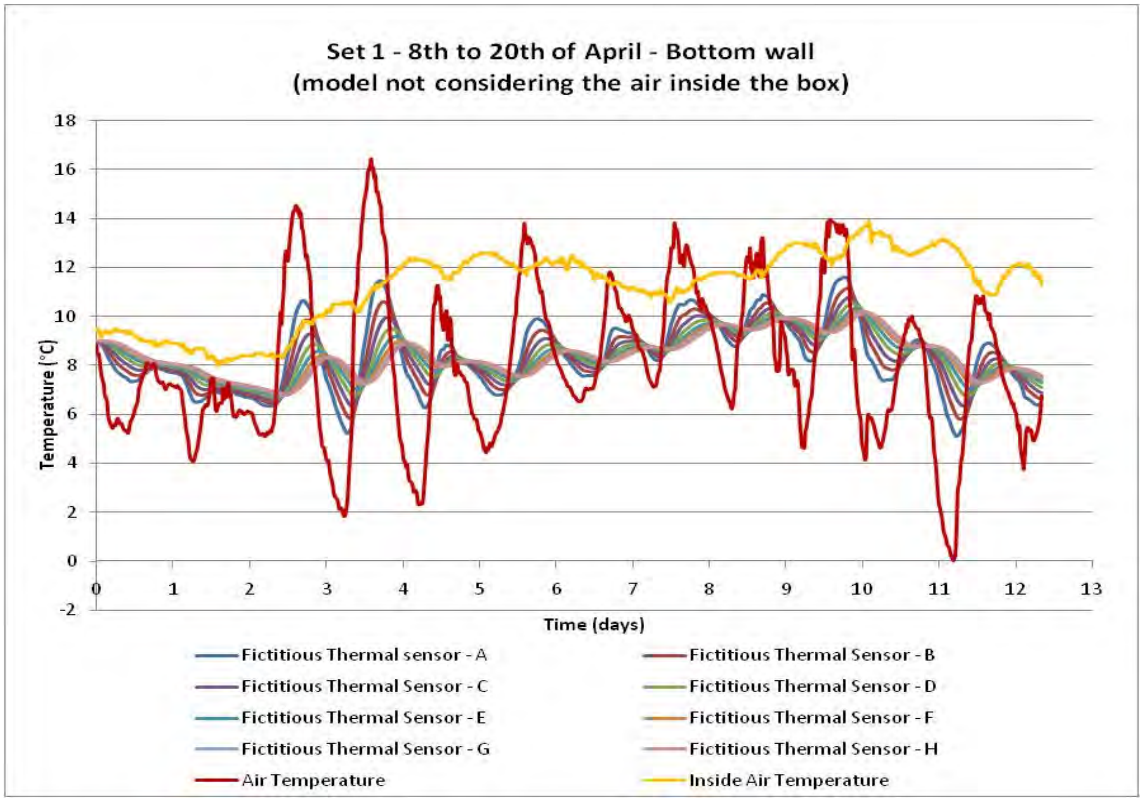
It came up the importance of analysing the evolution of the temperature in a bigger scale. The 48 hours period since the 15th of April 00:00 until the 17th of April 00:00 is also represented in graphics, allowing a better comprehension of the relation between wall temperature, air temperature and inside air temperature.

Reference		**Wall**	**Case**
Set 1	Detail from Set 1		
Graphic 17	Graphic 19	Bottom	A
Graphic 18	Graphic 20	Bottom	B
Graphic 21	Graphic 23	Top	A
Graphic 22	Graphic 24	Top	B

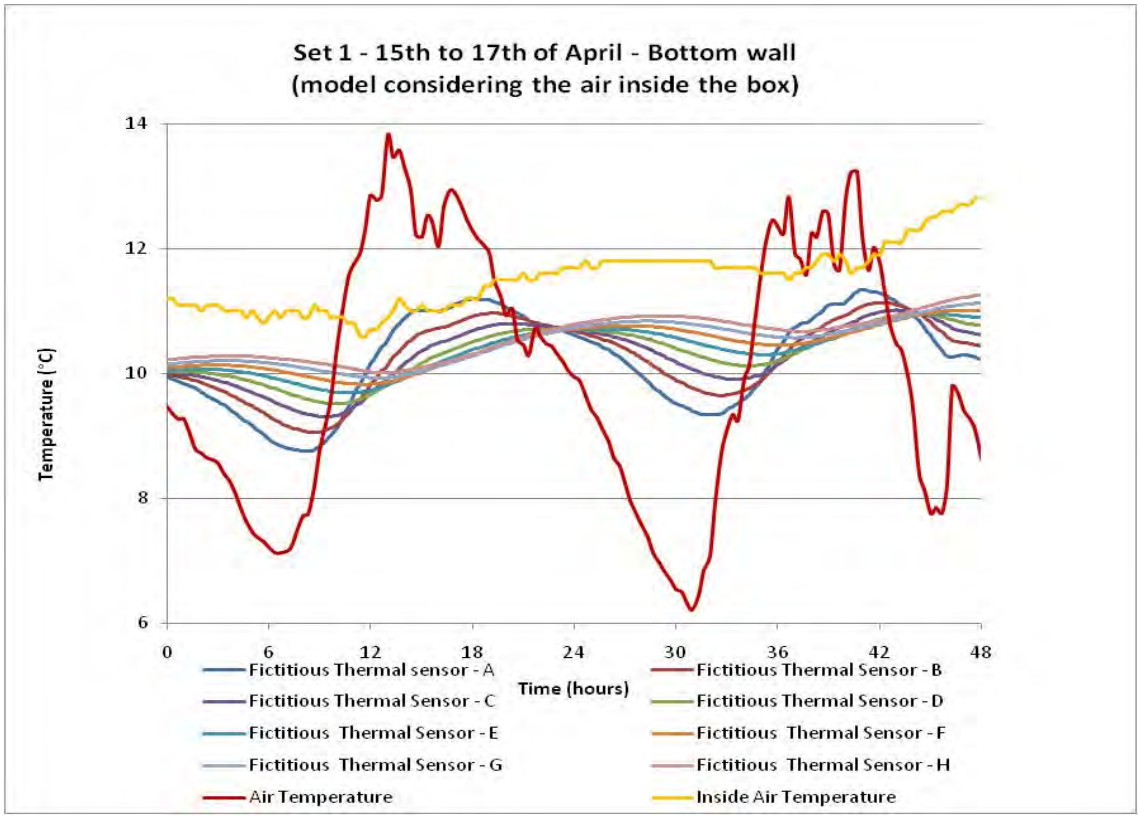
Table 14 - Index of the graphics it is possible to find in the following pages



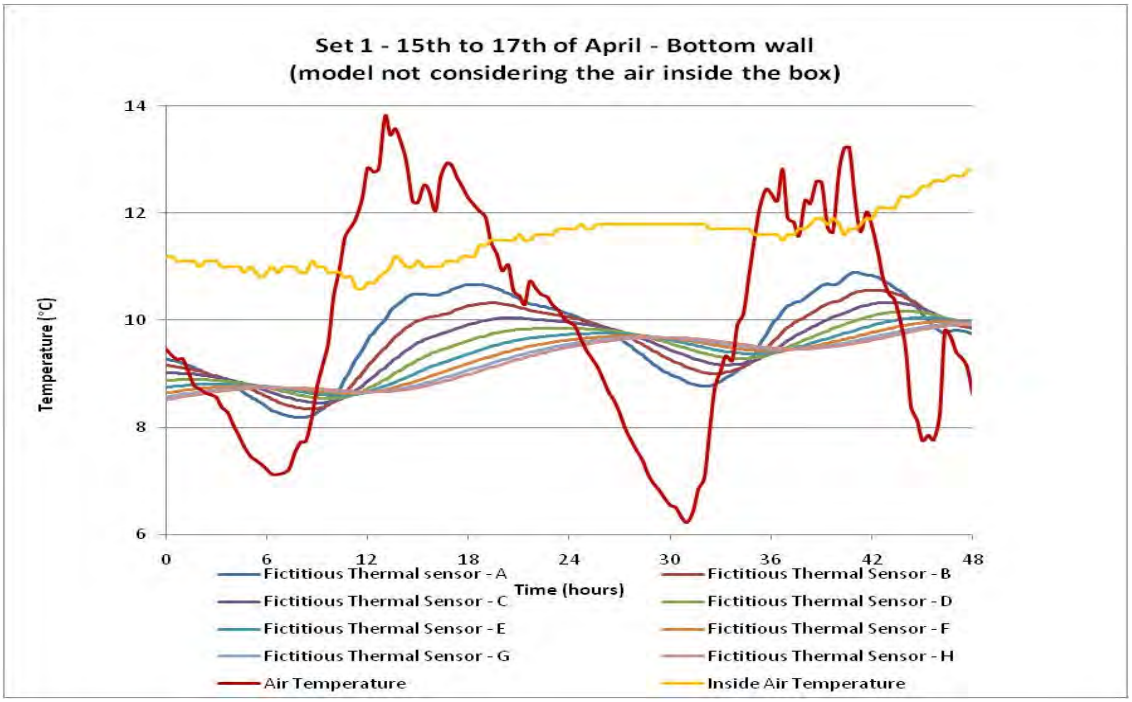
Graphic 17 – Temperature evolution along the Bottom Wall – Set 1 and Case A



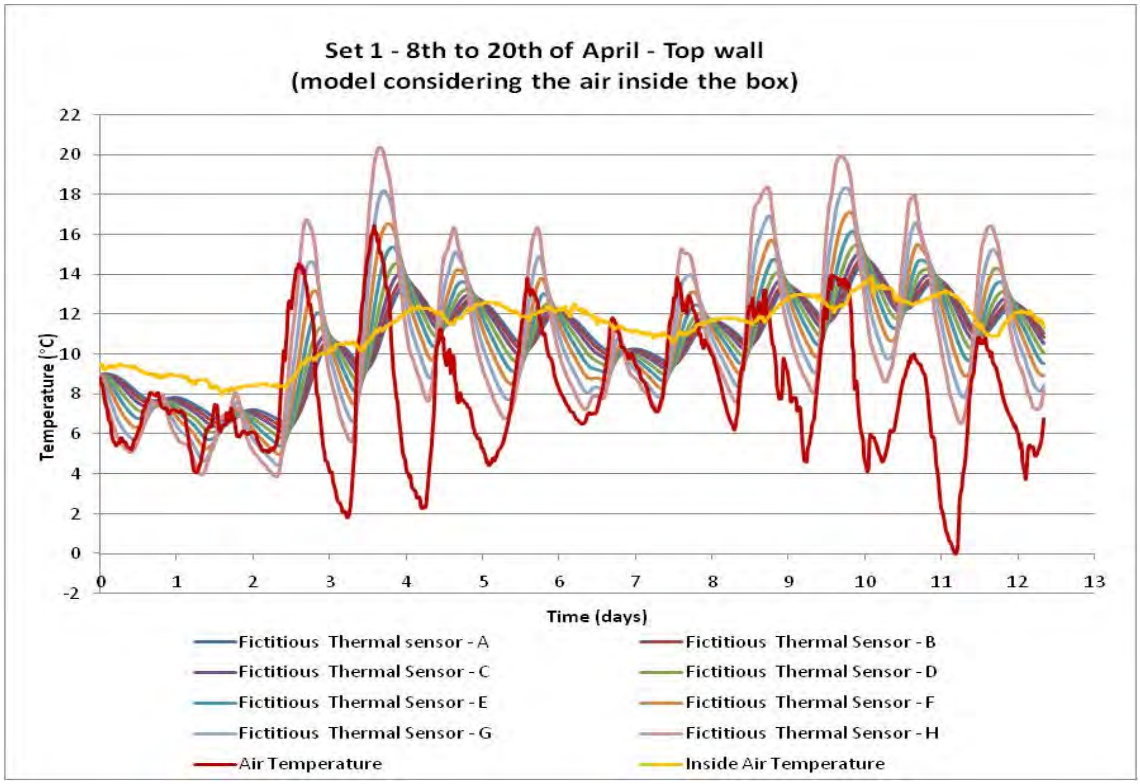
Graphic 18 – Temperature evolution along the Bottom Wall – Set 1 and Case B



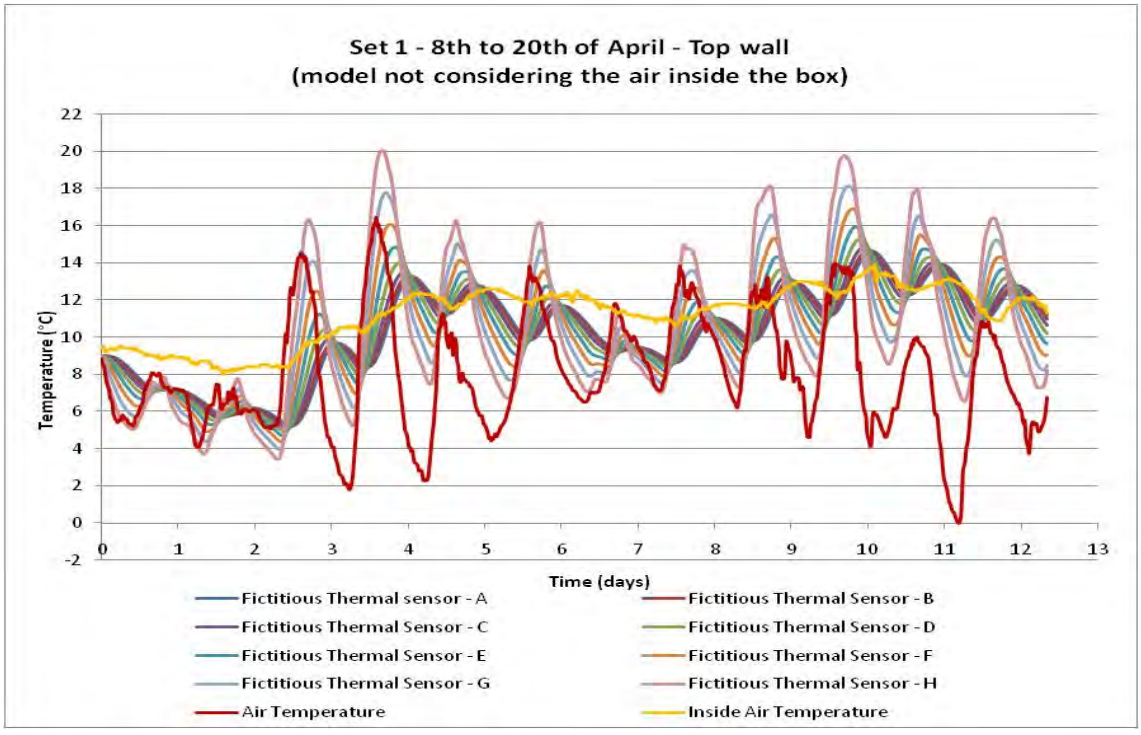
Graphic 19 – Temperature evolution along the Bottom Wall – Detail from Set 1 and Case A



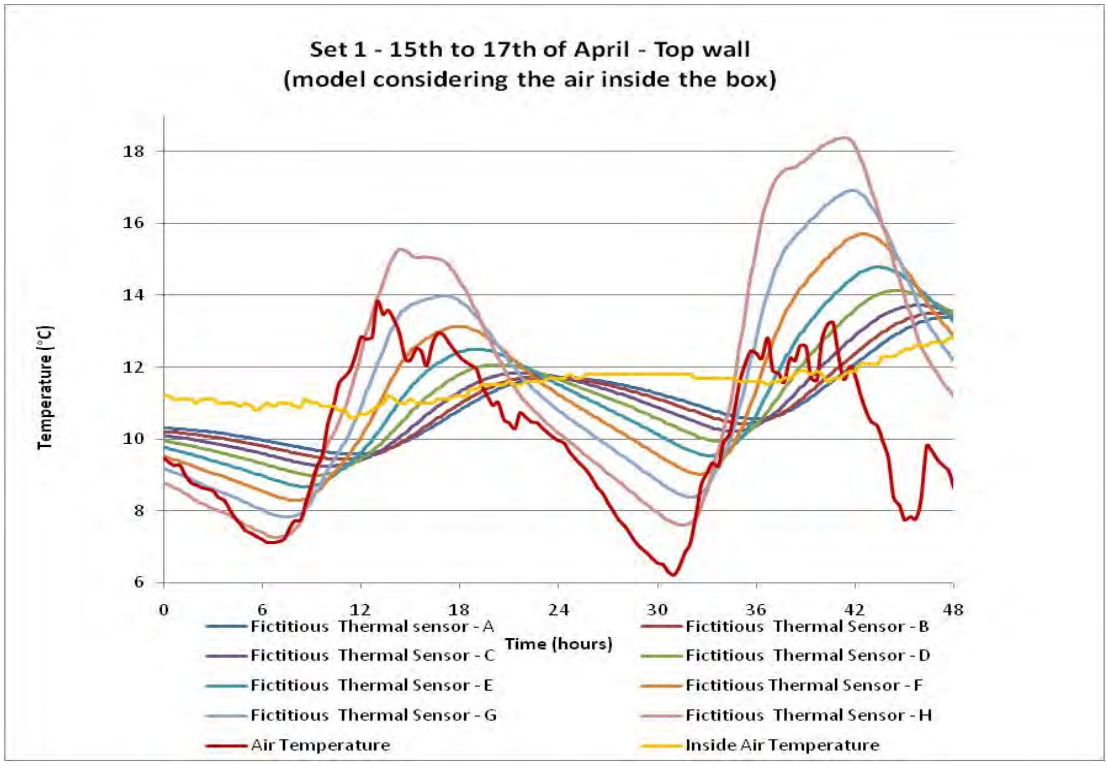
Graphic 20 – Temperature evolution along the Bottom Wall – Detail from Set 1 and Case B



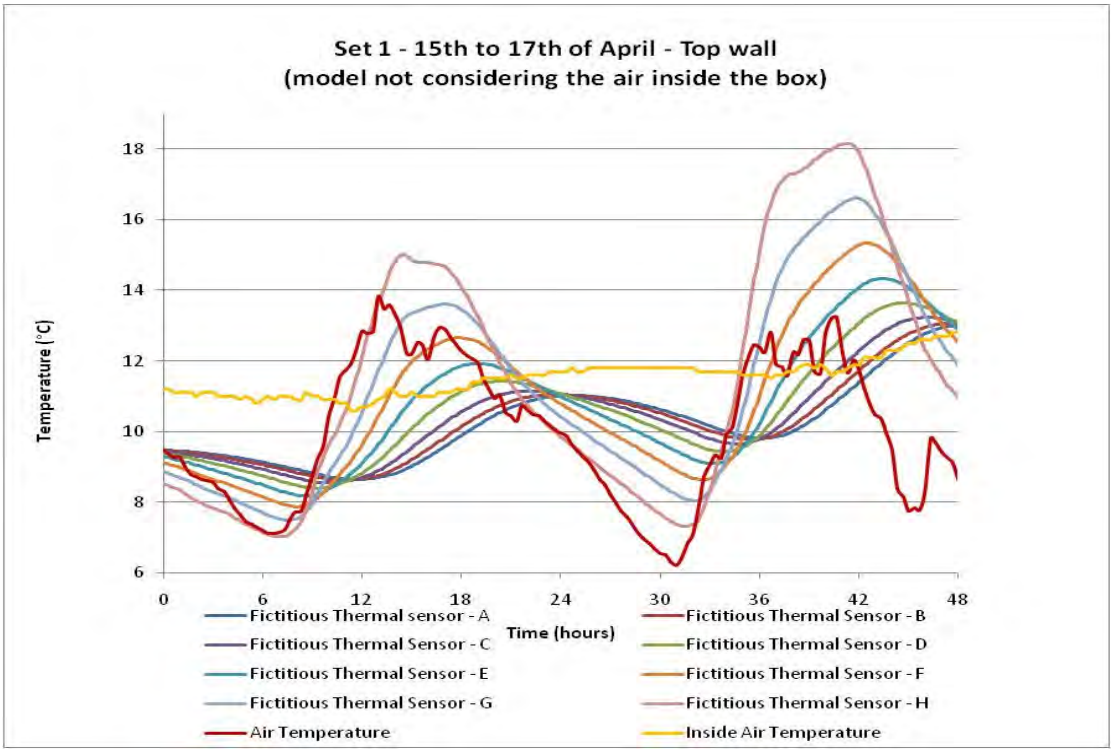
Graphic 21 – Temperature evolution along the Top Wall – Set 1 and Case A



Graphic 22 – Temperature evolution along the Top wall – Set 1 and Case B



Graphic 23 – Temperature evolution along the Top Wall – Detail from Set 1 and Case A



Graphic 24 – Temperature evolution along the Top Wall – Detail from Set 1 and Case B

First of all, it is important to explain how the fictitious sensors were named. The nomenclature from A to H starts from bottom to top in both the walls. In the Bottom wall, the 'A' sensor corresponds to a fictitious device located in the exterior of the cross-section, in the Top wall, on the contrary, the 'A' sensor is situated inside the box.

The values of the inside box air temperature are minutely represented in the thesis annex for all the three periods (Set 1, Set 2 and Set 3). However, in the previous graphics the description of this temperature is made by a yellow line which only varies 6ºC during the thirteen days from Set 1 contrasting with the air temperature (red line) that shows a spectrum where the difference between the maximum and the minimum values is 16ºC.

Despite the inside box air temperature be almost constant, it is possible to recognize in its function a sinusoidal behaviour as well as in the exterior air temperature. Both the functions show 24 hour cycles with the maximum and minimum extremes 12 hours spaced. The curiosity about the relation between these functions is the inside air temperature be 12 hours delay relatively to the outside air temperature, resulting that the maximum of one function and the minimum of the other occur at the same time. For instance, in Graphic 19 in the 30^{th} hour it is possible to verify the minimum air temperature and the maximum inside box air temperature.

It is important to justify the lag of the inside air temperature function relatively to the outside air temperature. The analysis at the 'fictitious thermal sensors' is essential. The delay also exists at their level and it is directly related to the concrete absorbity. The lag increases from the outside to the inside of the cross section and that is possible to verify in the Bottom wall where a smaller delay in 'A' exists comparing with the 'H' device (Graphic 19). In the Top wall, as it expected, the 'A' delay is bigger reaching the 12h, like function of the inside air temperature, and the lag verified in 'H' doesn't exceed the 6 hours. For bigger values of concrete absorbity, the temperature delay is decreased.

As it was referred before, the Bottom wall is mostly affected by the air temperature. The inclusion of the inside air has some relevance in this scenario. The sensors located closer to the interior are the most affected. In fact, the 'H' device shows the same behaviour as it is observed in the inside air temperature (Graphic 18). From the inside to the outside this inside air temperature's influence fades and the sensors show a bigger response to the outside air temperature.

In the four last graphics is visible, once again, the few influence the inside air temperature has over the Top wall. This might be explained by the big percentage attributed to the solar radiation and the air temperature. Adding the inside box air component in this wall is not as proportionally important as it is in the Bottom wall.

5.5 Summary

All the previous analyses were made in order to take some conclusions about the influence of modeling the inside air temperature in a concrete box cross-section.

The graphics from 5.2, in general, suggest a better function adaptation when the air inside the box is considered. Only the Top wall seems not to be affected by this modification in the model because the solar radiation is the main action affecting this face.

In 5.2.2.1 it was made an analysis calculating the least square but the results were very balanced not allowing any conclusions about the benefits of considering the inside box air.

It was considered, in 5.2.2.2, that a positive average temperature difference generally guarantees a better adaptation of the model to the maximum extremes reached in reality. Taking this into account, the model considering the inside air box seems to present better results.

The analysis conducted in 5.3 allows verifying if the model gives a good response in what respects the walls temperature. In fact, the model presents temperature values in the order it was expected with the Top wall warmer and the Bottom wall colder. This is an indicator of the good quality of the model (Case A and Case B). In this subchapter it was also possible to note the temperature of the four walls get closer when the inside air is included (Case A) and it seems reasonable an approximation of those values.

Finally in 5.4 it was studied the temperature development along the thickness of two walls. On the one hand it is proven the lag resulting from the concrete conductivity concept. On the other hand is verified that the temperature behavior in the inner locations of the wall thickness is more affected than in the outermost points.

In fact, the conducted analysis may indicate some improvement in the reality representation, but the results are not perfectly clear about it. In the Bottom wall were obtained better results but in the other walls is quite indifferent to consider or not the air interaction inside the box. Despite this moderate results, it is very satisfactory to not obtain worse results when the air inside the box is introduced in the model.

6 Conclusion

6.1 Learning process

First of all, it is interesting to refer the large spectrum of activities that the elaboration of this thesis allowed. This was an opportunity to learn more about a thematic which is only superficially referred in the study program of the degree on civil structural engineering. Besides searching and analyzing the theoretical background to support this work, it was necessary to learn how to work with the specialized software: Brigade Plus. Finally after building the computer models, a numerical analysis was conducted and the conclusions were taken.

6.2 Validity of the analysis

Both the developed models seem to be well done as they present a good fit with reality. However their results are slightly different and it is worthy to conclude about the importance of that difference.

In The Model chapter, the dimensions of the arch cross section were presented: each vertical wall has approximately 0.6 m of thickness and the horizontal walls thicknesses is around 0.4 m. In a superstructure bridge cross-section with a similar height (3 m), the thicknesses of the walls are smaller. This geometrical difference contributes to faster temperature propagation. As the main objective of this work is to take conclusions for bridge superstructures using the arch, it is necessary to take into account this detail. Once the temperature reaches the interior of the box faster, the lag is shorter and the temperature ranges inside the box are bigger. It is easy to suppose the effects would be greater in a superstructure bridge cross-section with thinner walls comparing to this arch cross-section.

The importance of these differences is not easy to clarify. On one hand the results obtained for the arch cross-section do not seem too important, but on the other hand the results for the superstructure bridge cross-section must be amplified.

The models are built to help in the design of new bridges. It is possible to apply the climate variations measured in a station in the new bridge location nearby, but getting the values of the inside air does not seem possible or reasonable before the construction of the bridge.

Summarizing, the work conducted in this thesis does not have a practical application on bridges design but it helps in gaining a new perspective about the studied thematic.

7 Bibliography

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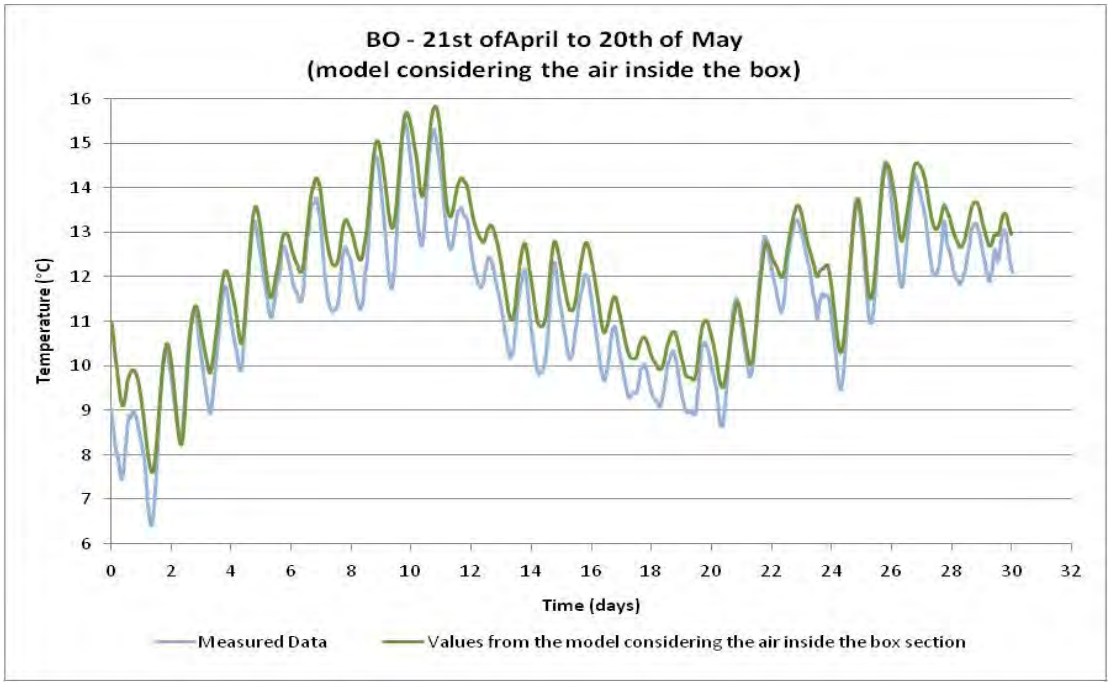
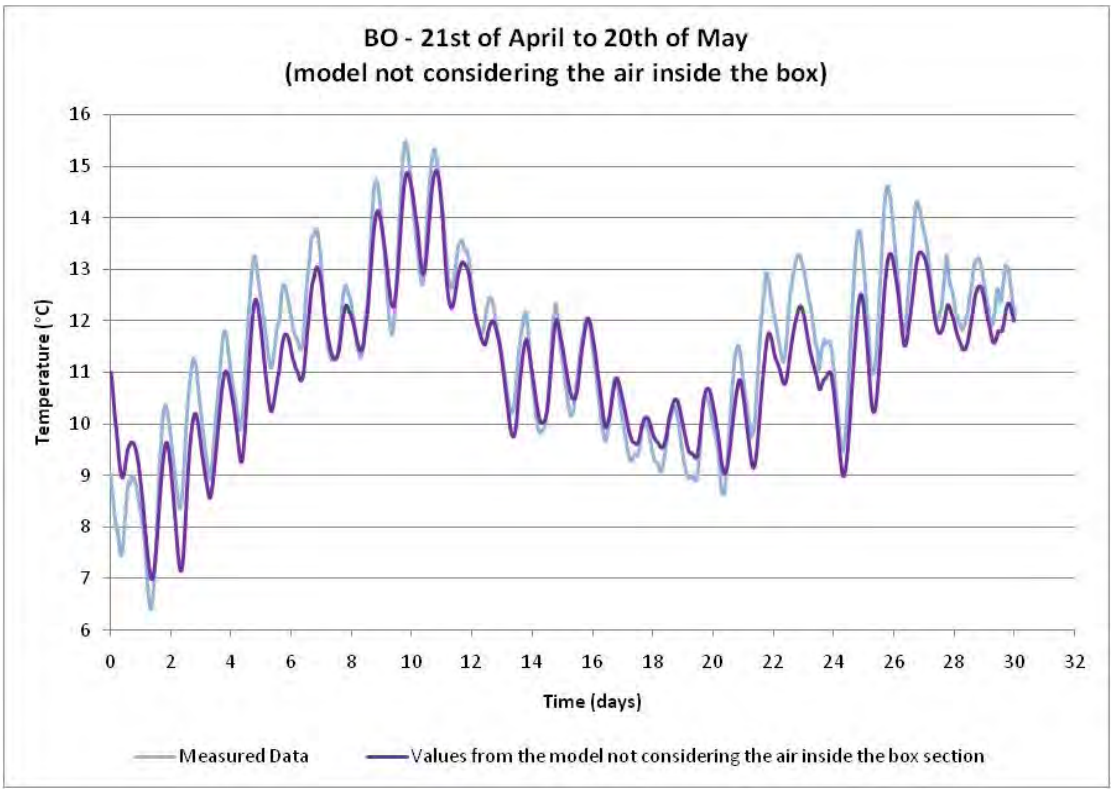
Annex I

Graphics comparing modelled and real values (Case A and Case B)

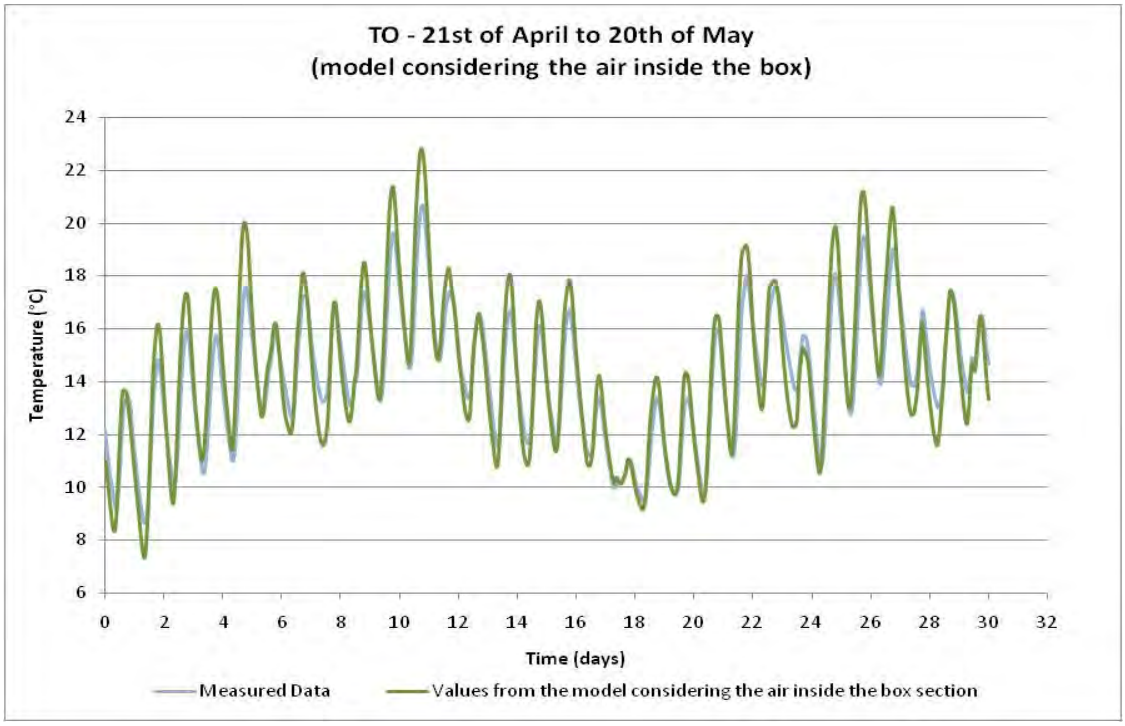
Reference	Temperature sensor	Case	Set
Graphic 25	BO	A	2
Graphic 26	BO	B	2
Graphic 27	TO	A	2
Graphic 28	TO	B	2
Graphic 29	EO	A	2
Graphic 30	EO	B	2
Graphic 31	EO	A	3
Graphic 32	EO	B	3
Graphic 33	EM	A	1
Graphic 34	EM	B	1
Graphic 35	EM	A	2
Graphic 36	EM	B	2
Graphic 37	EM	A	3
Graphic 38	EM	B	3
Graphic 39	WO	A	2
Graphic 40	WO	B	2
Graphic 41	WO	A	3
Graphic 42	WO	B	3
Graphic 43	WM	A	1
Graphic 44	WM	B	1
Graphic 45	WM	A	2
Graphic 46	WM	B	2
Graphic 47	WM	A	3
Graphic 48	WM	B	3



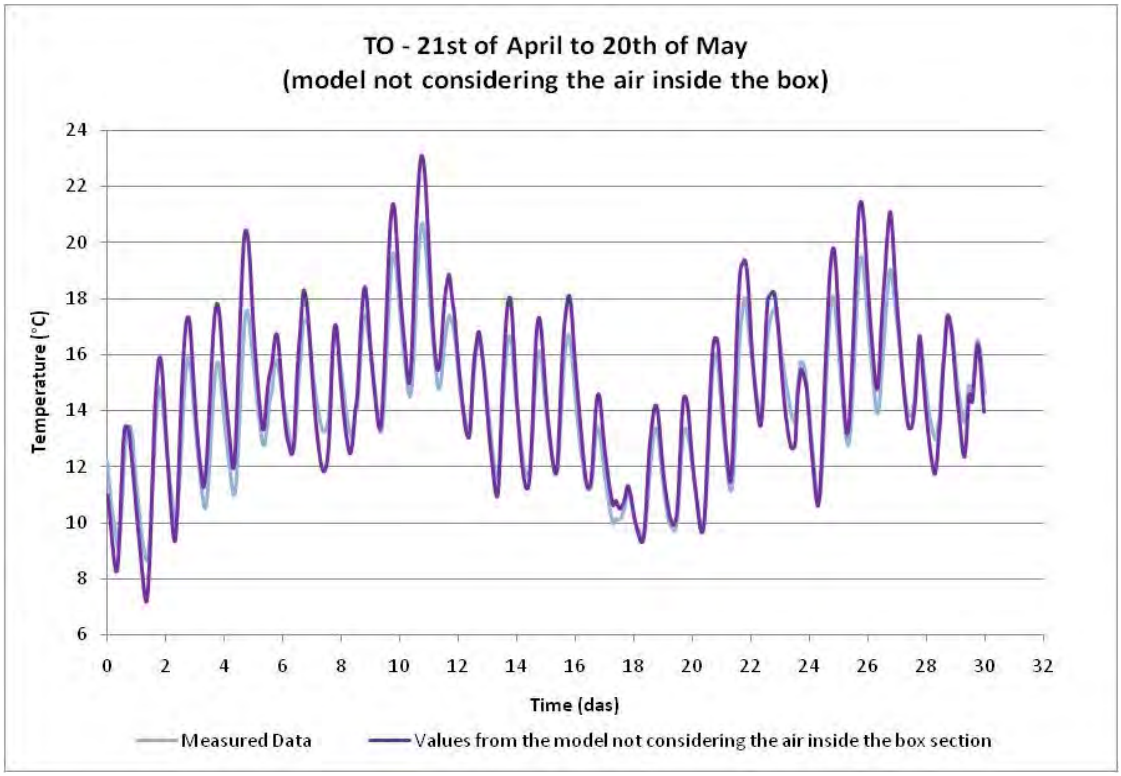
Graphic 25 - Temperatures in the sensor located in the bottom wall (BO) of the cross-section during Set 2 and for the situation of Case A



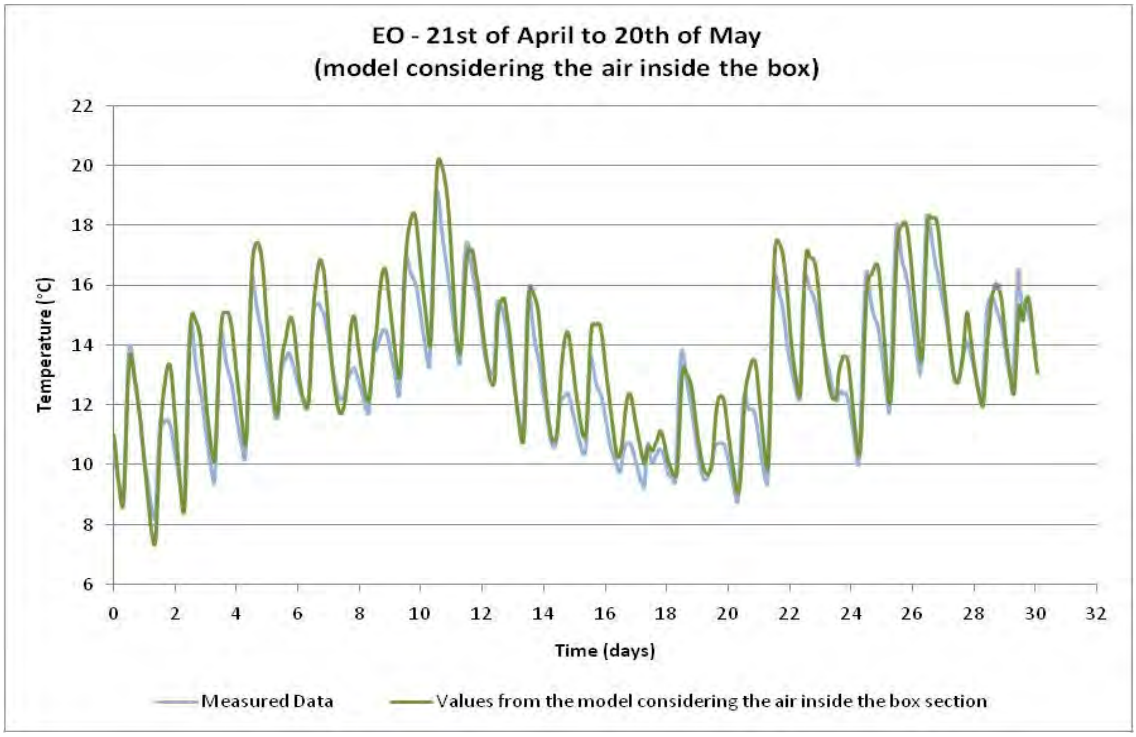
Graphic 26 - Temperatures in the sensor located in the bottom wall (BO) of the cross-section during Set 2 and for the situation of Case B



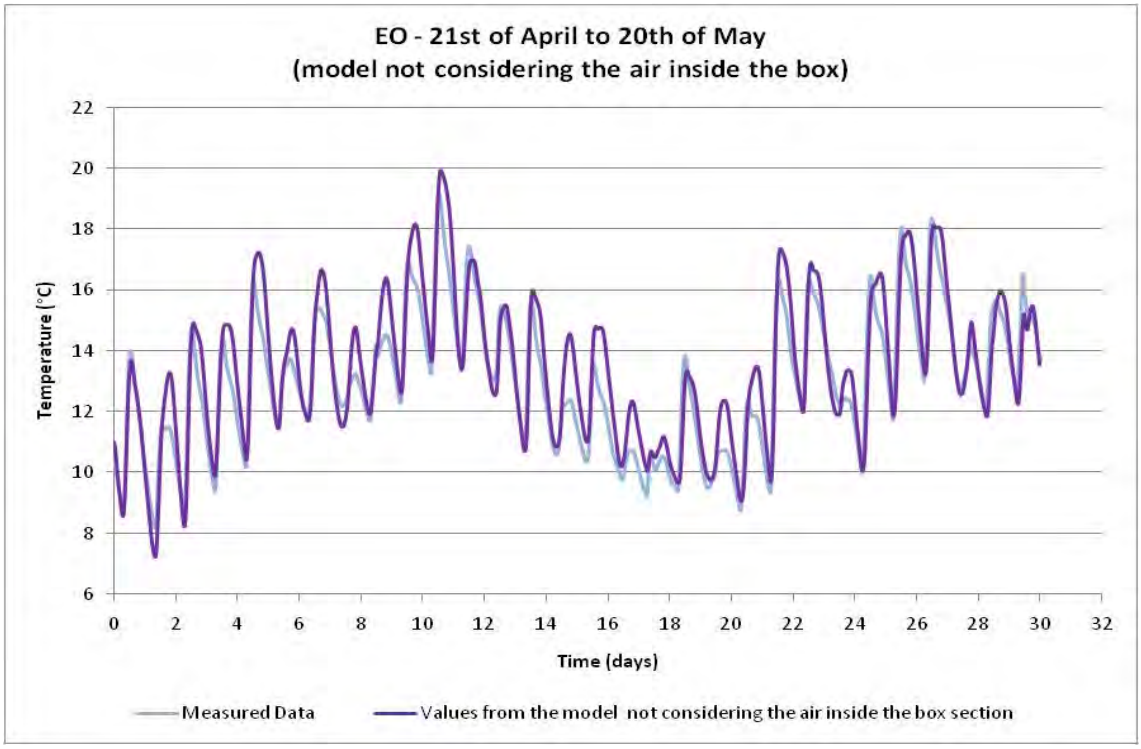
Graphic 27 - Temperatures in the sensor located in the top wall (TO) of the cross-section during Set 2 and for the situation of Case A



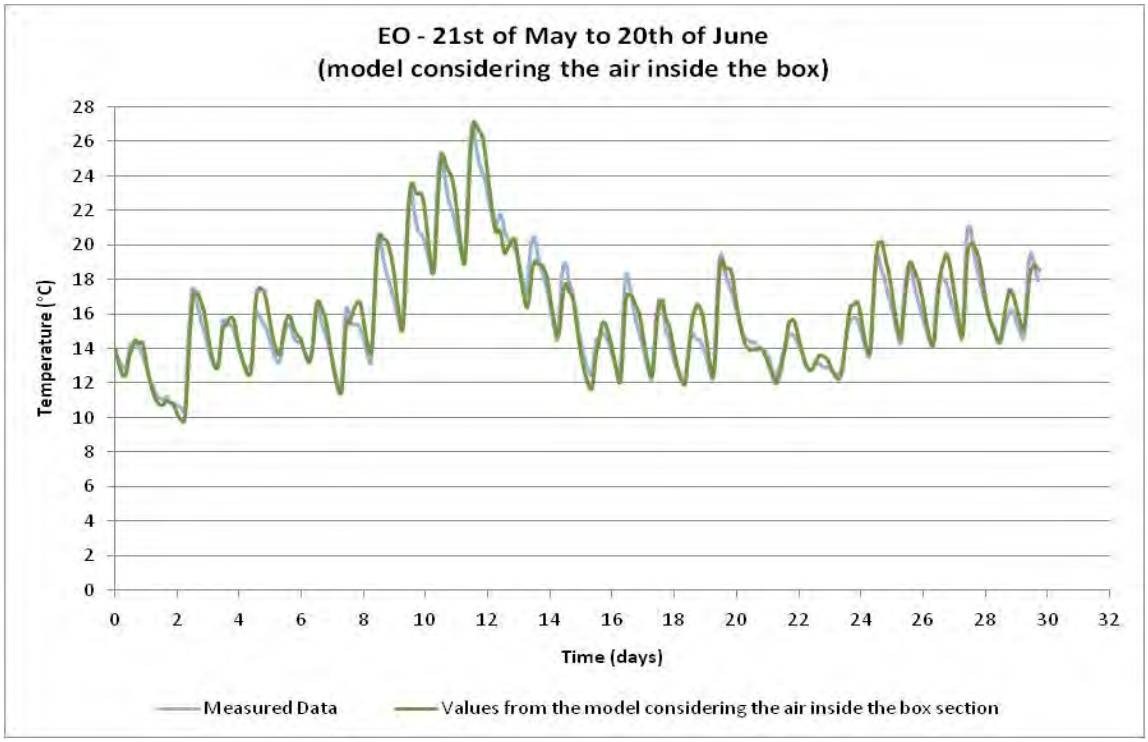
Graphic 28 - Temperatures in the sensor located in the top wall (TO) of the cross-section during Set 2 and for the situation of Case B



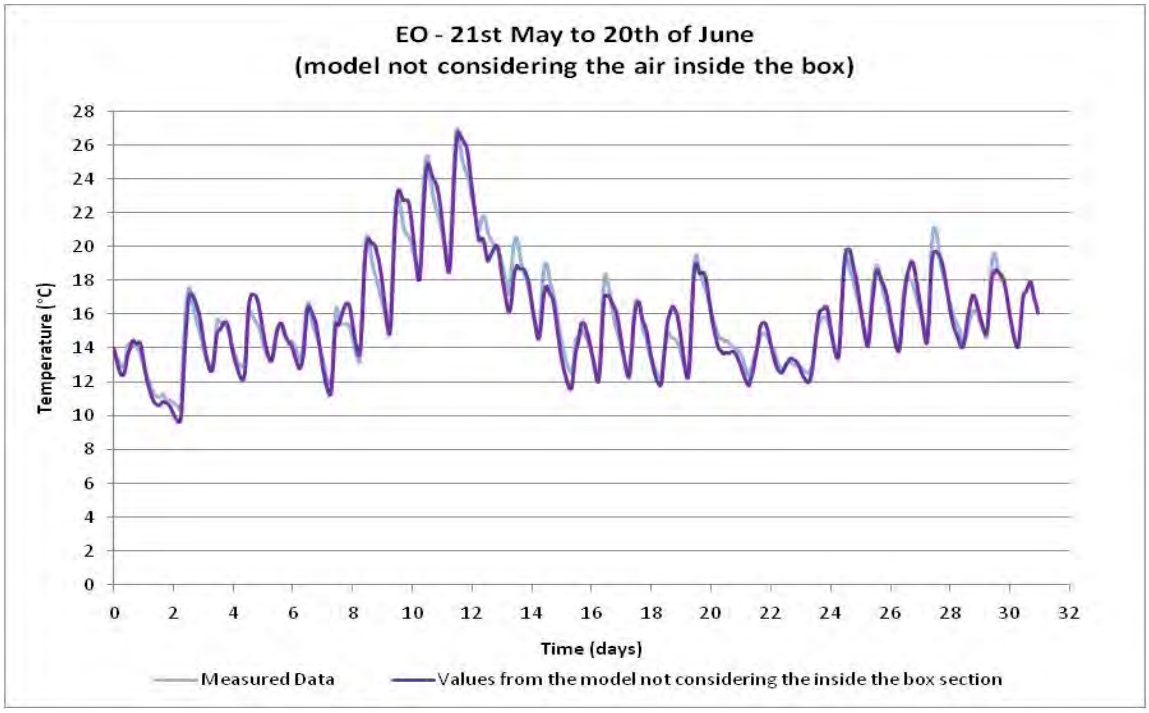
Graphic 29 - Temperatures in the sensor located in the vertical east wall (EO) of the cross-section during Set 2 and for the situation of Case A



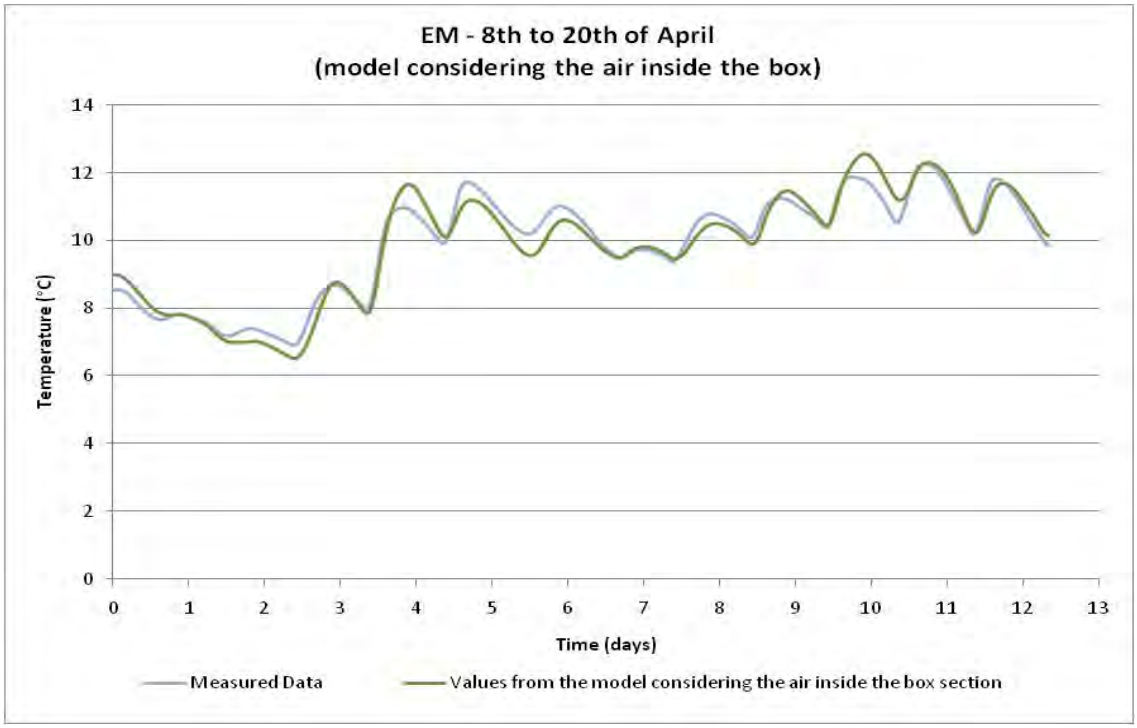
Graphic 30 - Temperatures in the sensor located in the vertical east wall (EO) of the cross-section during Set 2 and for the situation of Case B



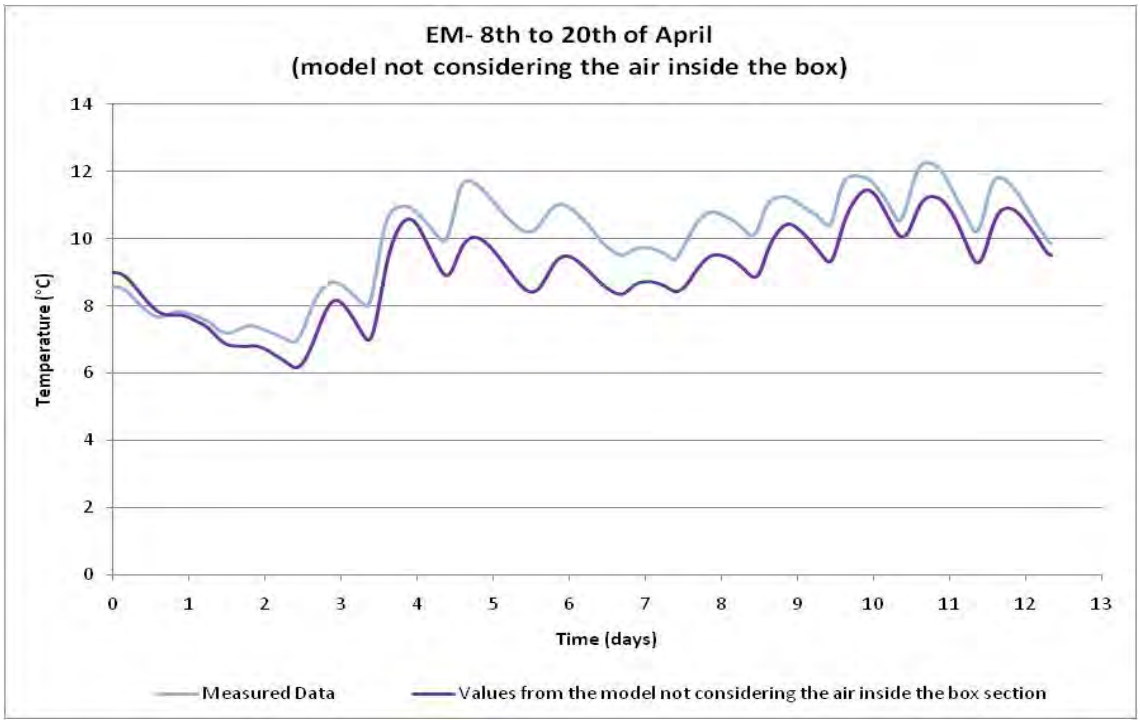
Graphic 31 - Temperatures in the sensor located in the vertical east wall (EO) of the cross-section during Set 3 and for the situation of Case A



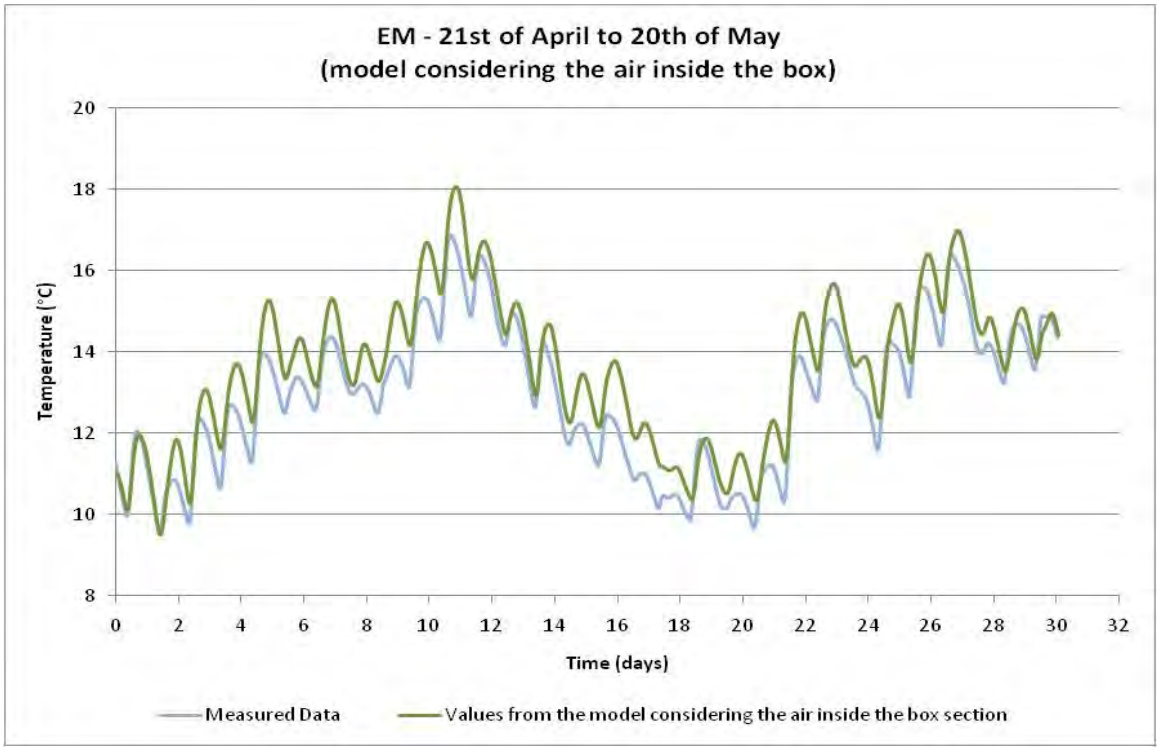
Graphic 32 - Temperatures in the sensor located in the vertical east wall (EO) of the cross-section during Set 3 and for the situation of Case B



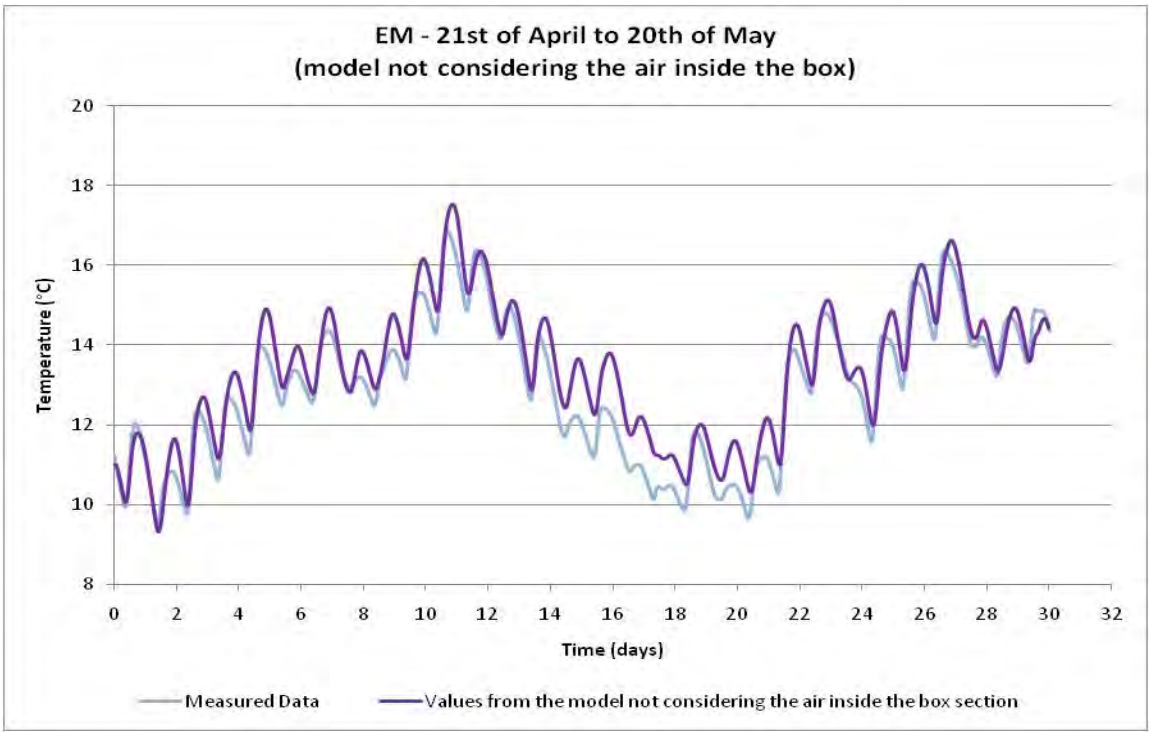
Graphic 33 - Temperatures in the sensor located in the vertical east wall (EM) of the cross-section during Set 1 and for the situation of Case A



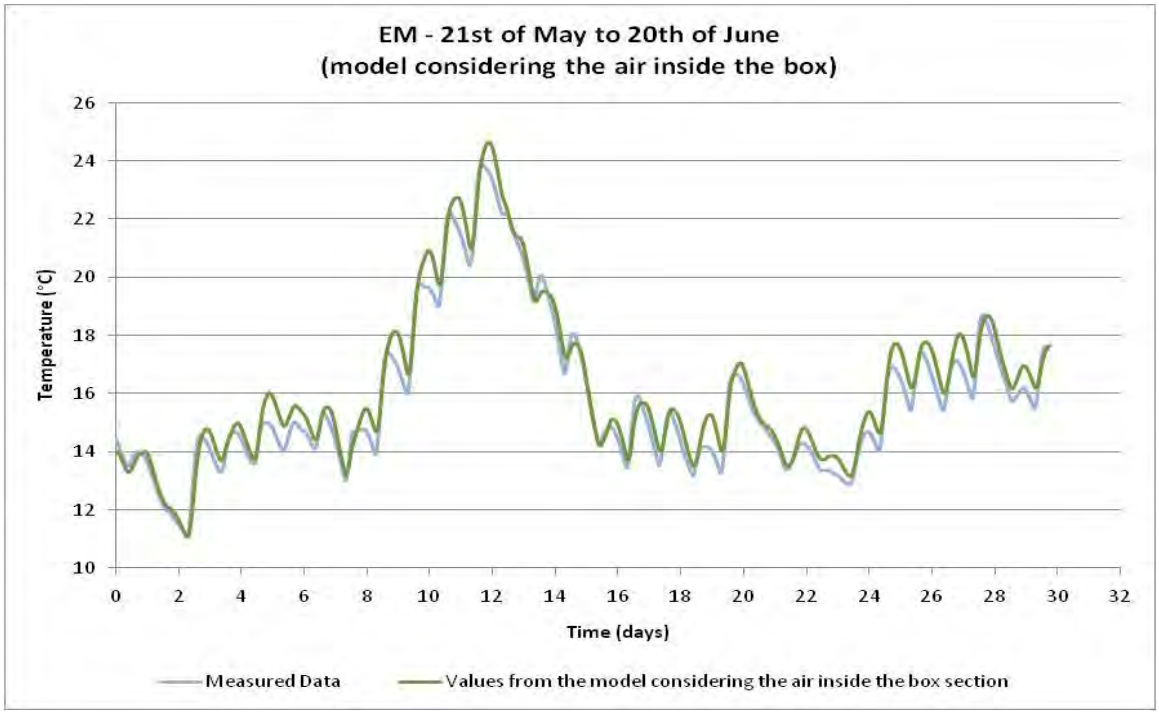
Graphic 34 - Temperatures in the sensor located in the vertical east wall (EM) of the cross-section during Set 1 and for the situation of Case B



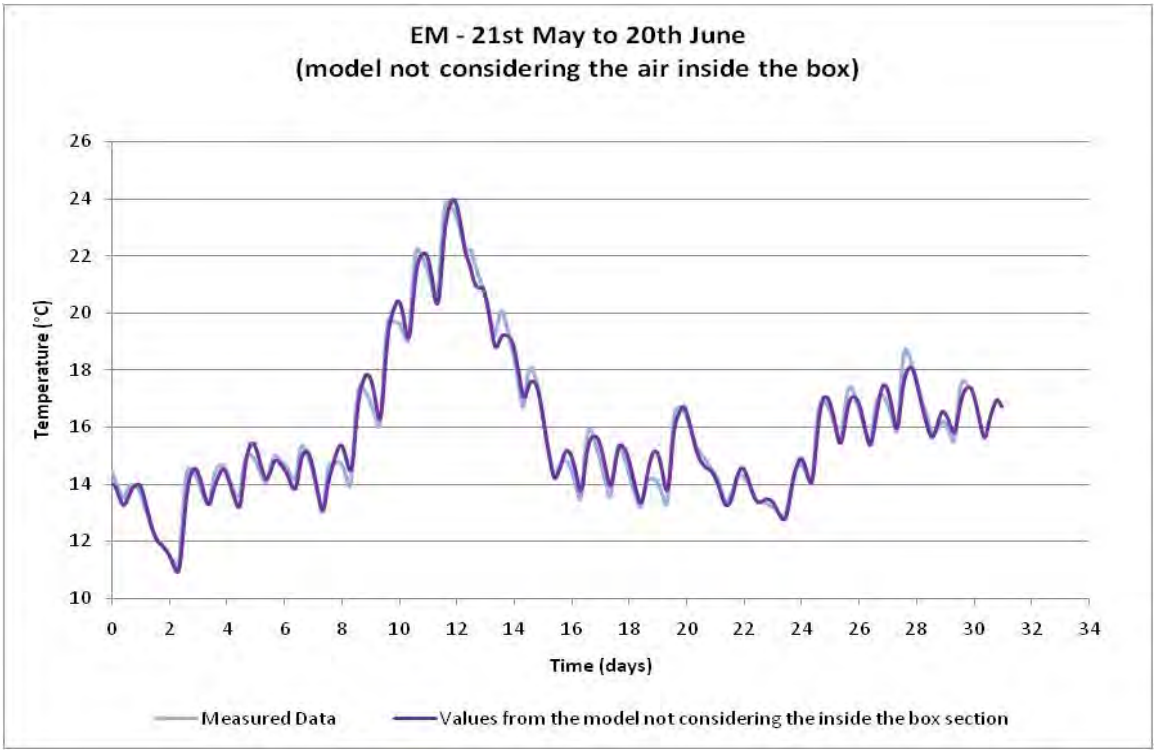
Graphic 35 - Temperatures in the sensor located in the vertical east wall (EM) of the cross-section during Set 2 and for the situation of Case A



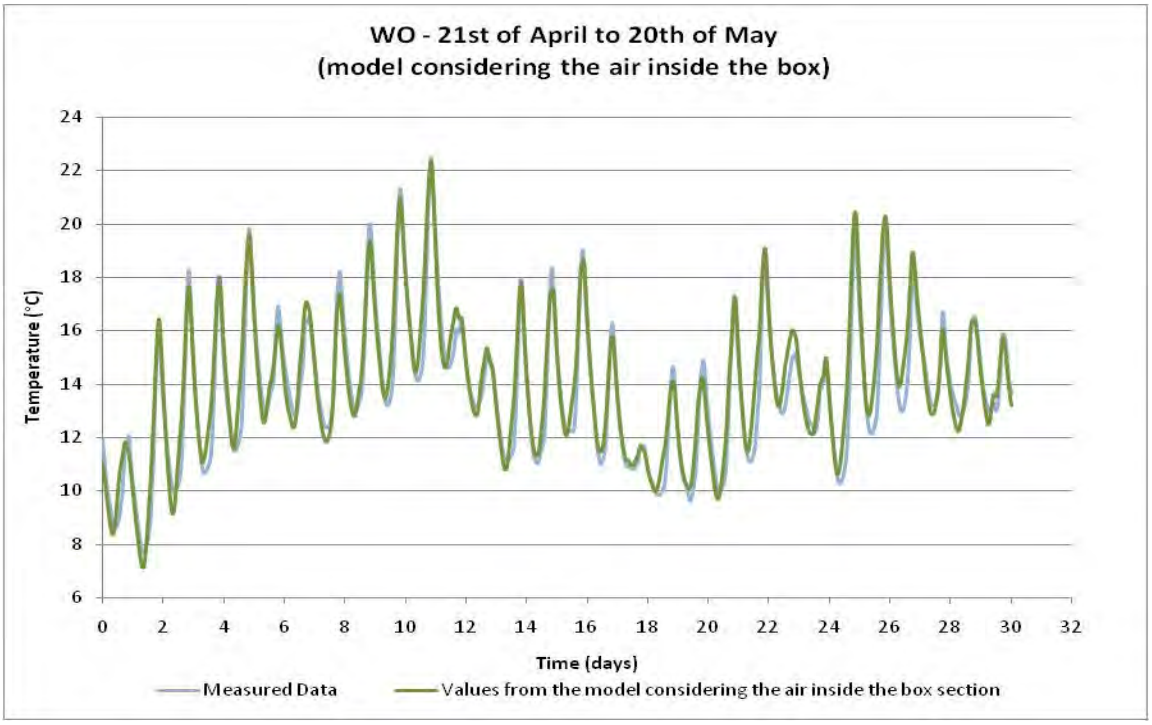
Graphic 36 - Temperatures in the sensor located in the vertical east wall (EM) of the cross-section during Set 2 and for the situation of Case B



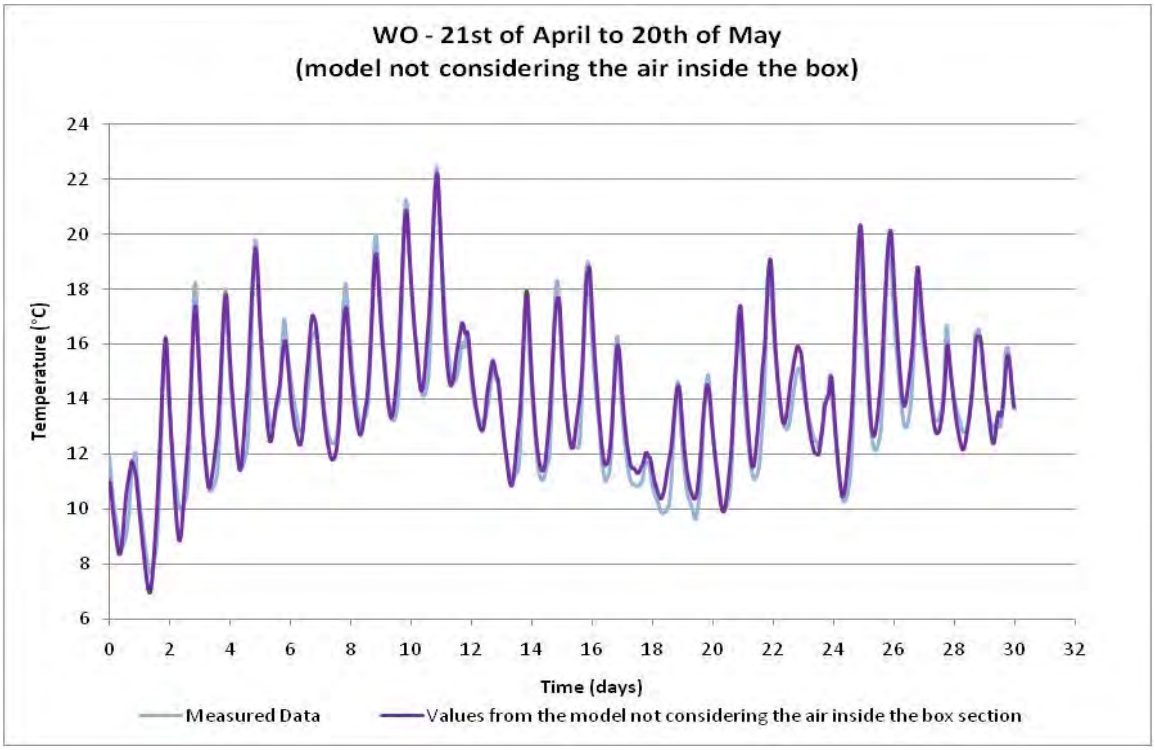
Graphic 37 - Temperatures in the sensor located in the vertical east wall (EM) of the cross-section during Set 3 and for the situation of Case A



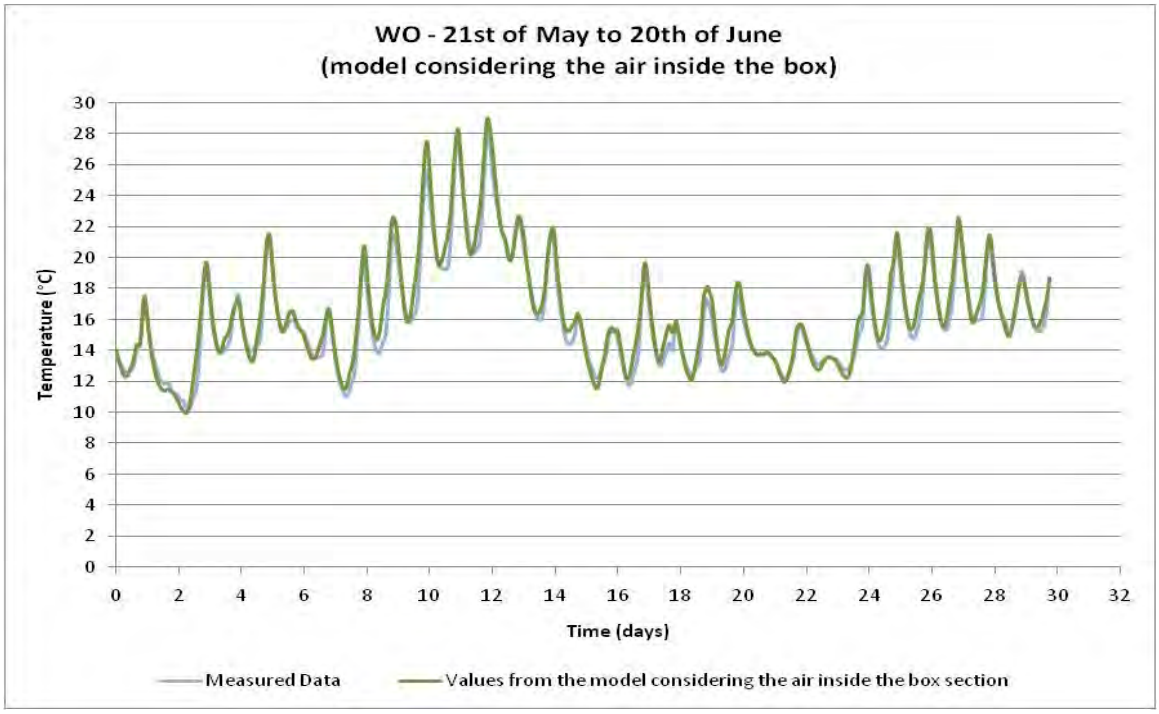
Graphic 38 - Temperatures in the sensor located in the vertical east wall (EM) of the cross-section during Set 3 and for the situation of Case B



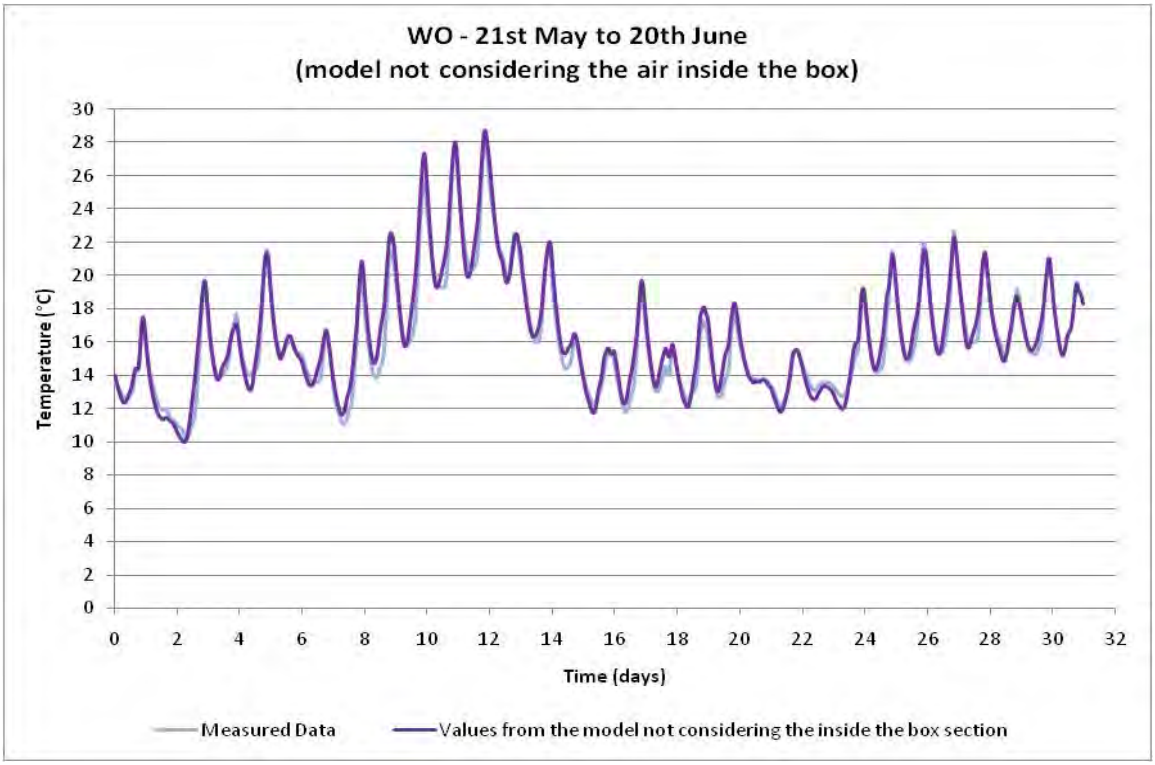
Graphic 39 - Temperatures in the sensor located in the vertical west wall (WO) of the cross-section during Set 2 and for the situation of Case A



Graphic 40 - Temperatures in the sensor located in the vertical west wall (WO) of the cross-section during Set 2 and for the situation of Case B

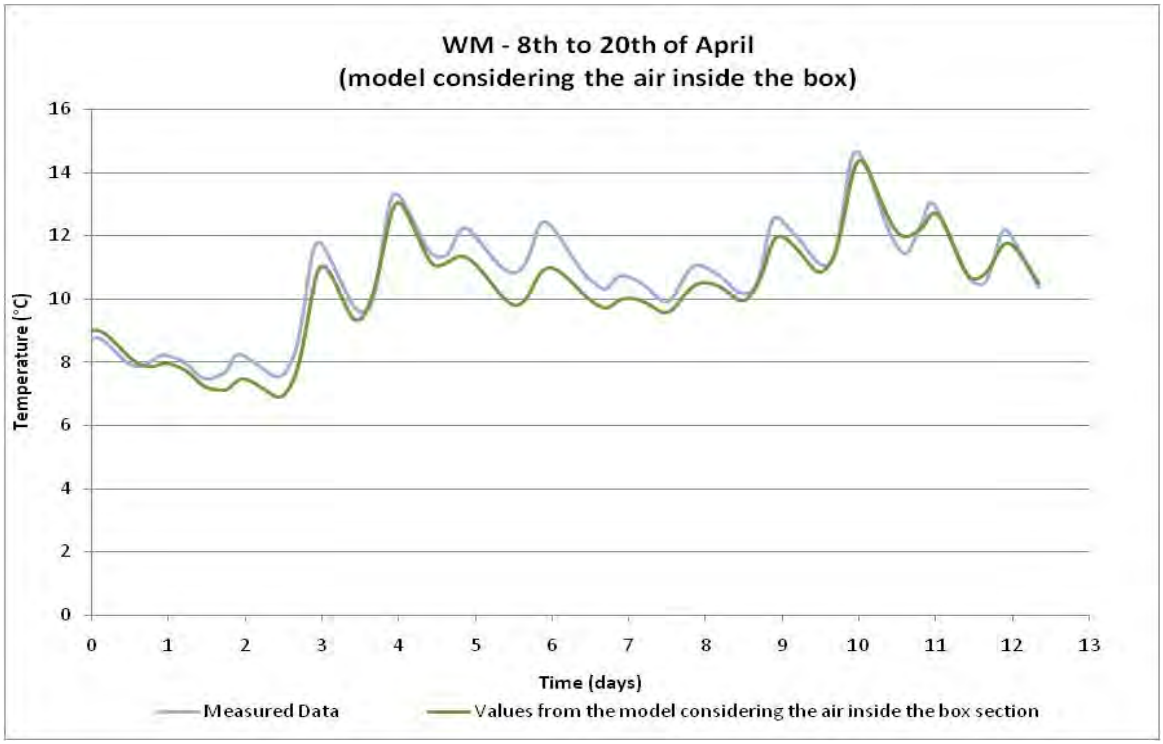


Graphic 41 - Temperatures in the sensor located in the vertical west wall (WO) of the cross-section during Set 3 and for the situation of Case A

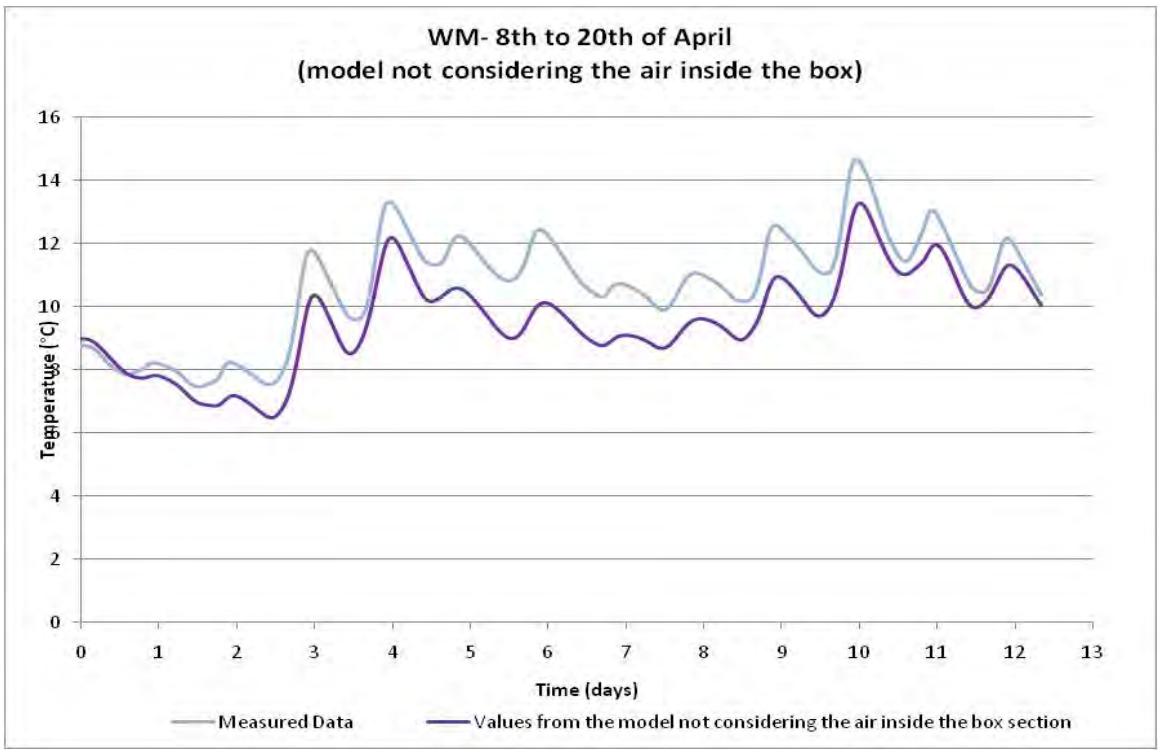


Graphic 42 - Temperatures in the sensor located in the vertical west wall (WO) of the cross-section during Set 3 and for the situation of Case B

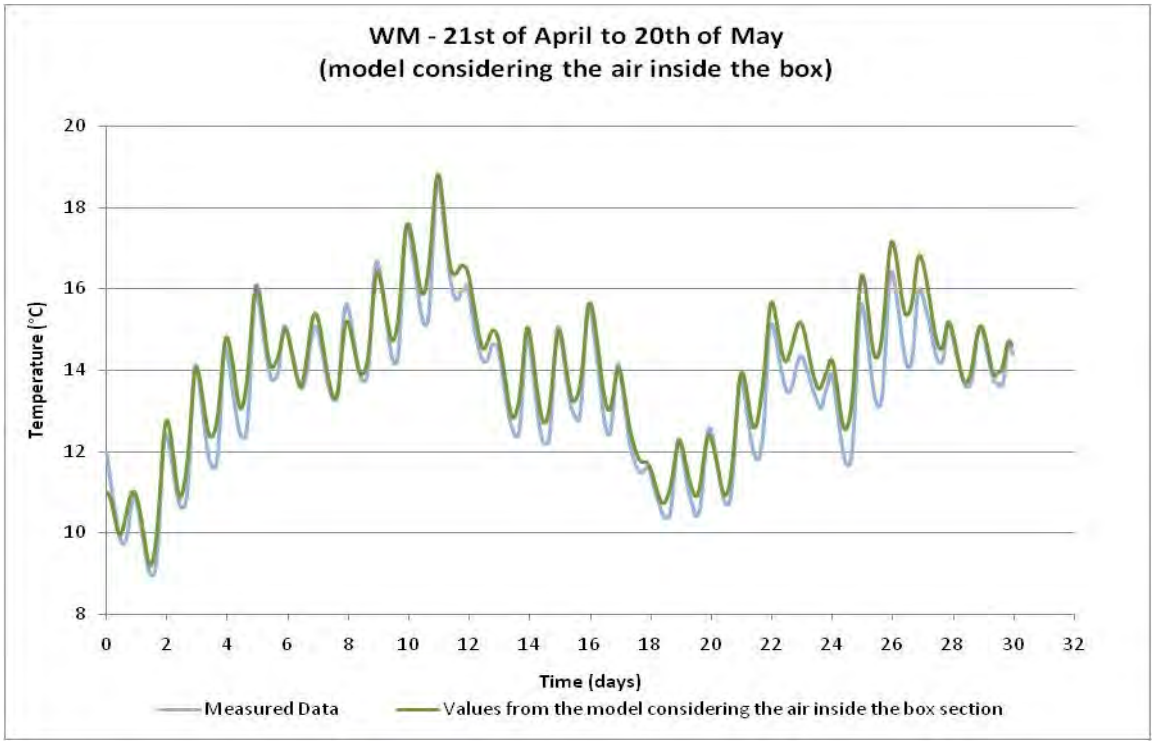
X



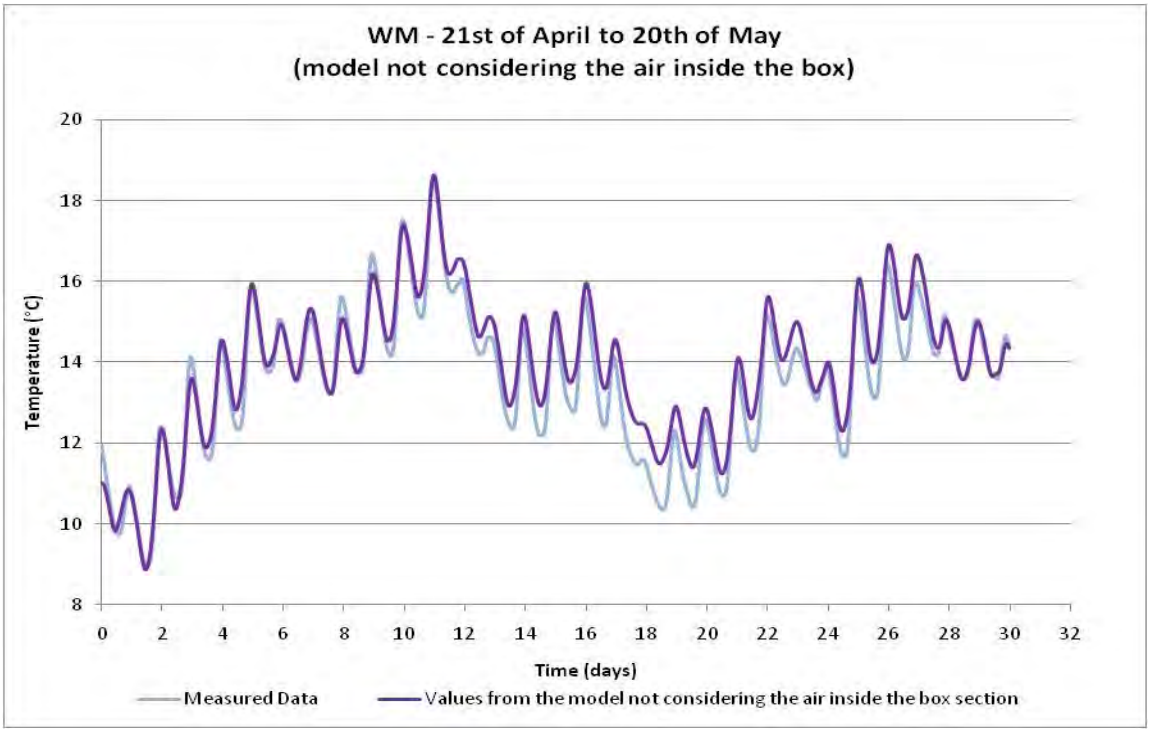
Graphic 43 - Temperatures in the sensor located in the vertical west wall (WM) of the cross-section during Set 1 and for the situation of Case A



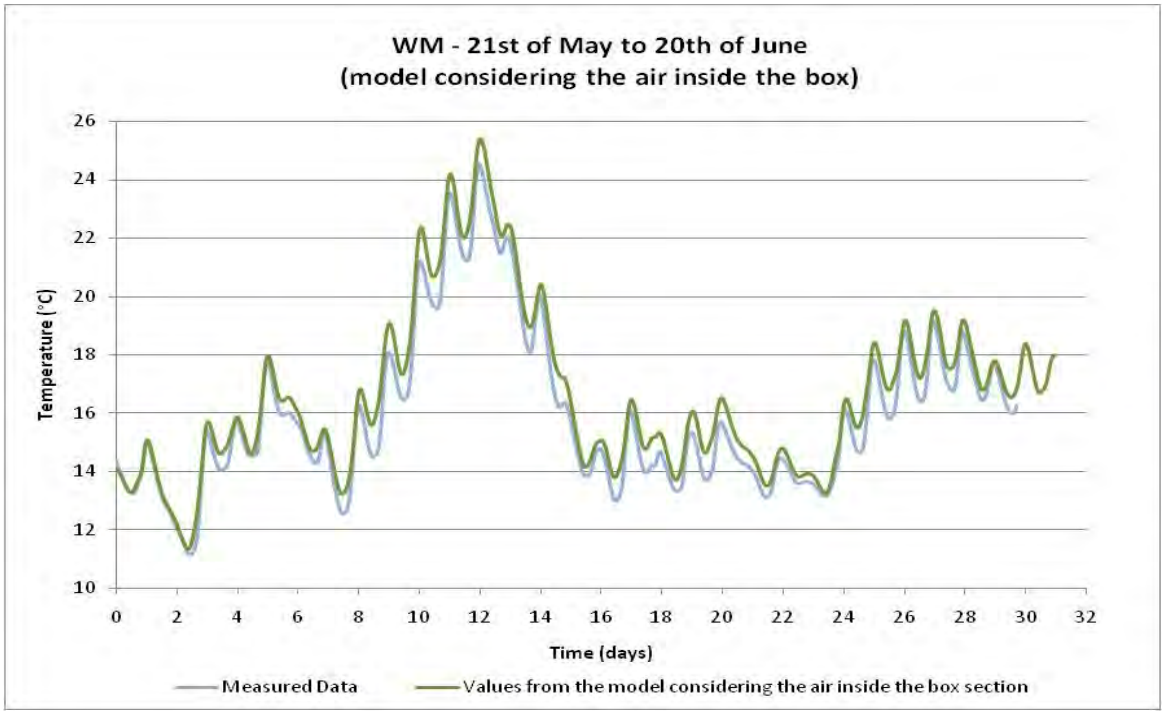
Graphic 44 - Temperatures in the sensor located in the vertical west wall (WM) of the cross-section during Set 1 and for the situation of Case B



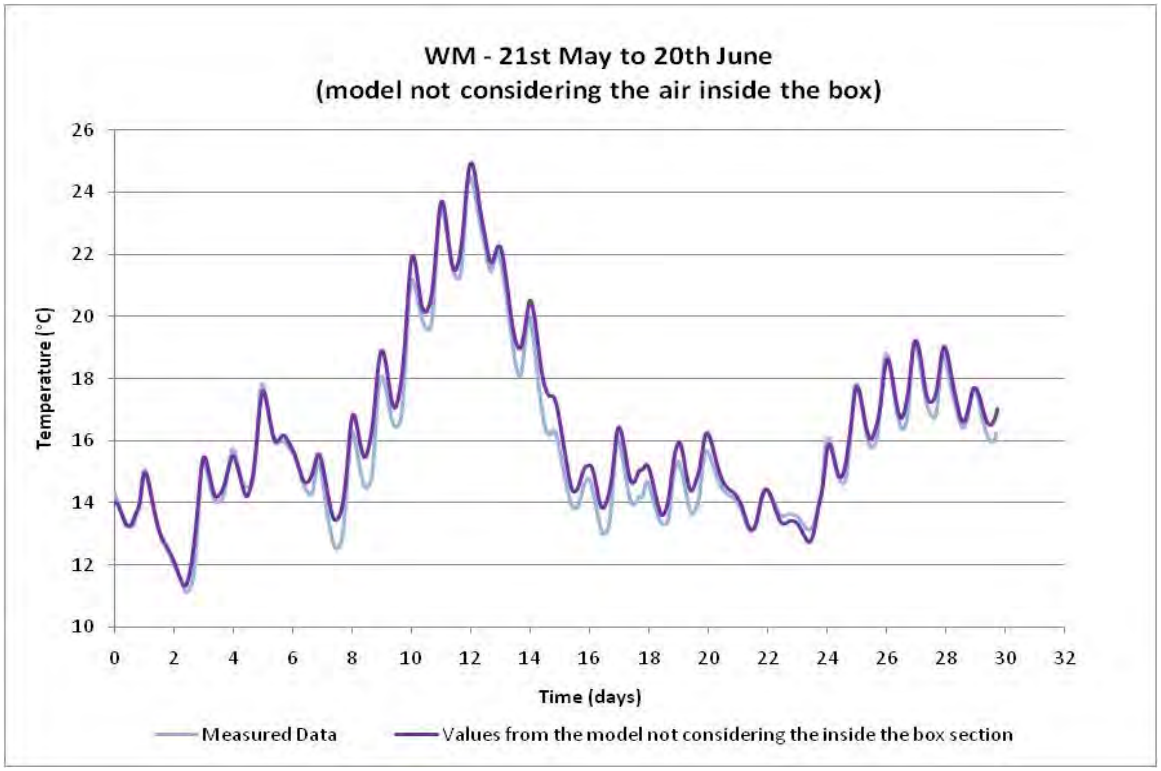
Graphic 45 - Temperatures in the sensor located in the vertical west wall (WM) of the cross-section during Set 2 and for the situation of Case A



Graphic 46 - Temperatures in the sensor located in the vertical west wall (WM) of the cross-section during Set 2 and for the situation of Case B



Graphic 47 - Temperatures in the sensor located in the vertical west wall (WM) of the cross-section during Set 3 and for the situation of Case A



Graphic 48 - Temperatures in the sensor located in the vertical west wall (WM) of the cross-section during Set 3 and for the situation of Case B

Annex II

Tables containing the temperature values for the inside box air and outside during the three sets of time

Set 1 - 8th to 20th of April

Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)
1	0	9,5	8,9	1	75600	9,0	7,2	2	151200	8,2	6,8	3	226800	9,5	14,3
	1200	9,4	8,5		76800	8,9	7,1		152400	8,2	6,5		228000	9,5	14,4
	2400	9,5	8,5		78000	9,0	7,0		153600	8,3	6,1		229200	9,5	14,1
1	3600	9,3	8,2	1	79200	9,0	7,1	2	154800	8,3	5,9	3	230400	9,5	14,3
	4800	9,2	7,8		80400	9,0	7,2		156000	8,3	5,9		231600	9,7	13,6
	6000	9,2	7,5		81600	9,0	7,2		157200	8,3	5,9		232800	9,6	13,5
1	7200	9,3	7,4	1	82800	8,9	7,3	2	158400	8,3	5,9	3	234000	9,8	13,1
	8400	9,3	7,2		84000	8,9	7,2		159600	8,3	6,1		235200	9,8	12,7
	9600	9,4	6,7		85200	8,9	7,2		160800	8,4	6,1		236400	9,8	12,4
1	10800	9,4	6,7	1	86400	8,9	7,2	2	162000	8,4	6,2	3	237600	9,8	12,5
	12000	9,4	6,5		87600	8,9	7,1		163200	8,4	6,1		238800	9,8	12,0
	13200	9,3	6,0		88800	8,9	7,1		164400	8,4	6,1		240000	9,8	11,8
1	14400	9,4	5,7	2	90000	8,9	7,1	2	165600	8,4	6,0	3	241200	9,7	11,4
	15600	9,3	5,6		91200	8,9	7,2		166800	8,4	6,0		242400	9,8	10,3
	16800	9,4	5,6		92400	8,9	7,1		168000	8,4	6,0		243600	9,7	8,9
1	18000	9,4	5,4	2	93600	8,9	7,1	2	169200	8,4	6,1	3	244800	9,9	8,0
	19200	9,4	5,5		94800	8,8	7,0		170400	8,4	6,1		246000	9,9	7,9
	20400	9,5	5,6		96000	8,8	6,9		171600	8,4	6,1		247200	10,0	7,5
1	21600	9,5	5,5	2	97200	8,8	6,5	2	172800	8,4	6,1	3	248400	10,0	6,9
	22800	9,5	5,7		98400	8,9	6,2		174000	8,4	6,1		249600	10,0	6,4
	24000	9,4	5,8		99600	8,7	5,9		175200	8,4	6,0		250800	10,0	5,8
1	25200	9,4	5,7	2	100800	8,6	5,5	3	176400	8,4	5,9	3	252000	10,1	5,4
	26400	9,4	5,6		102000	8,7	5,2		177600	8,4	5,7		253200	10,0	5,1
	27600	9,4	5,6		103200	8,6	5,0		178800	8,5	5,6		254400	10,0	4,7
1	28800	9,4	5,6	2	104400	8,5	4,6	3	180000	8,5	5,5	3	255600	10,0	4,7
	30000	9,4	5,4		105600	8,6	4,2		181200	8,5	5,4		256800	10,1	4,6
	31200	9,4	5,4		106800	8,6	4,1		182400	8,5	5,3		258000	10,1	4,3
1	32400	9,4	5,3	2	108000	8,5	4,1	3	183600	8,5	5,2	3	259200	10,2	4,1
	33600	9,4	5,3		109200	8,6	4,1		184800	8,5	5,2		260400	10,3	4,1
	34800	9,3	5,2		110400	8,7	4,2		186000	8,5	5,2		261600	10,2	4,1
1	36000	9,3	5,2	2	111600	8,7	4,3	3	187200	8,5	5,2	4	262800	10,3	3,7
	37200	9,4	5,5		112800	8,7	4,5		188400	8,5	5,2		264000	10,2	3,4
	38400	9,4	5,7		114000	8,7	4,7		189600	8,4	5,1		265200	10,3	3,3
1	39600	9,3	5,8	2	115200	8,7	5,0	3	190800	8,4	5,1	4	266400	10,5	3,1
	40800	9,3	5,9		116400	8,7	5,2		192000	8,4	5,2		267600	10,5	2,8
	42000	9,3	6,0		117600	8,7	5,5		193200	8,4	5,2		268800	10,5	2,6
1	43200	9,2	6,2	2	118800	8,7	5,9	3	194400	8,4	5,3	4	270000	10,5	2,6
	44400	9,2	6,3		120000	8,7	6,2		195600	8,4	5,3		271200	10,5	2,5
	45600	9,2	6,4		121200	8,6	6,2		196800	8,5	5,3		272400	10,5	2,4
1	46800	9,1	6,6	2	122400	8,6	6,4	3	198000	8,4	5,4	4	273600	10,5	2,1
	48000	9,1	7,0		123600	8,5	6,4		199200	8,5	5,5		274800	10,5	2,2
	49200	9,1	7,2		124800	8,3	6,3		200400	8,3	5,8		276000	10,5	2,1
1	50400	9,0	7,3	2	126000	8,4	6,4	3	201600	8,4	6,3	4	277200	10,6	2,1
	51600	9,1	7,5		127200	8,3	6,8		202800	8,4	7,1		278400	10,5	1,9
	52800	9,0	7,7		128400	8,3	7,2		204000	8,4	8,0		279600	10,6	1,8
1	54000	9,0	7,7	2	129600	8,4	7,5	3	205200	8,4	8,9	4	280800	10,5	1,9
	55200	9,0	7,9		130800	8,4	7,3		206400	8,4	9,5		282000	10,5	2,2
	56400	9,0	8,1		132000	8,3	7,5		207600	8,4	10,2		283200	10,5	2,6
1	57600	9,0	8,1	2	133200	8,3	6,8	3	208800	8,4	9,7	4	284400	10,6	3,3
	58800	9,0	8,1		134400	8,2	6,2		210000	8,3	10,5		285600	10,6	4,1
	60000	9,0	8,0		135600	8,2	6,1		211200	8,4	11,2		286800	10,5	4,8
1	61200	8,9	8,0	2	136800	8,0	6,3	3	212400	8,5	12,3	4	288000	10,6	5,6
	62400	8,9	7,9		138000	8,0	6,4		213600	8,6	12,7		289200	10,4	8,4
	63600	9,0	7,9		139200	8,1	6,5		214800	8,7	12,3		290400	10,4	9,9
1	64800	9,0	8,1	2	140400	8,2	6,5	3	216000	8,7	12,3	4	291600	10,4	10,5
	66000	8,8	8,0		141600	8,2	6,5		217200	8,8	12,8		292800	10,2	10,9
	67200	8,9	7,7		142800	8,2	7,1		218400	8,8	13,3		294000	10,2	11,2
1	68400	8,9	7,5	2	144000	8,2	6,6	3	219600	8,8	13,7	4	295200	10,2	12,2
	69600	8,8	7,4		145200	8,1	6,9		220800	9,0	14,1		296400	10,2	12,6
	70800	8,8	7,3		146400	8,2	6,7		222000	9,1	14,3		297600	10,4	12,9
1	72000	8,9	7,3	2	147600	8,3	7,1	3	223200	9,1	14,3	4	298800	10,3	13,7
	73200	8,9	7,3		148800	8,3	7,3		224400	9,2	14,5		300000	10,5	14,0
	74400	8,9	7,3		150000	8,2	6,7		225600	9,3	14,5		301200	10,6	14,6

Set 1 - 8th to 20th of April

Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)
4	302400	10,6	14,8	5	378000	12,1	8,1	6	453600	12,4	5,5	7	529200	12,0	7,4
	303600	10,7	15,0		379200	12,1	9,7		454800	12,4	5,5		530400	11,9	7,2
	304800	10,7	15,4		380400	12	10,5		456000	12,4	5,7		531600	11,9	7,1
4	306000	10,8	15,9	5	381600	12,1	10,5	6	457200	12,4	6,0	7	532800	12,3	7,1
	307200	10,9	16,1		382800	12,1	11,0		458400	12,3	6,1		534000	12,4	7,1
	308400	11,0	16,1		384000	12	11,3		459600	12,3	6,4		535200	12,5	7,0
4	309600	11,0	16,5	5	385200	12,1	11,3	6	460800	12,3	6,6	7	536400	12,5	6,9
	310800	11,2	16,0		386400	12	10,7		462000	12,2	6,9		537600	12,4	6,7
	312000	11,1	16,1		387600	11,9	10,8		463200	12,2	7,1		538800	12,3	6,7
4	313200	11,1	15,7	5	388800	11,8	9,9	6	464400	12,2	7,5	7	540000	12,2	6,7
	314400	11,2	15,8		390000	11,8	9,7		465600	12,1	7,9		541200	12,2	6,6
	315600	11,3	15,1		391200	11,7	9,5		466800	12,1	8,3		542400	12,2	6,6
4	316800	11,3	15,1	5	392400	11,6	10,1	6	468000	12,1	8,7	7	543600	12,3	6,5
	318000	11,2	14,9		393600	11,6	10,1		469200	12,2	9,0		544800	12,2	6,5
	319200	11,2	14,7		394800	11,5	10,2		470400	12,1	9,5		546000	12,0	6,5
4	320400	11,3	14,6	5	396000	11,6	9,1	6	471600	12,1	9,9	7	547200	12,2	6,6
	321600	11,3	13,9		397200	11,6	9,5		472800	12,0	10,0		548400	12,2	6,7
	322800	11,4	13,4		398400	11,6	9,9		474000	12,0	10,8		549600	12,1	6,8
4	324000	11,4	13,3	5	399600	11,5	9,8	6	475200	11,9	11,1	7	550800	12,0	7,0
	325200	11,4	13,1		400800	11,7	8,7		476400	11,9	11,7		552000	12,0	7,1
	326400	11,5	12,8		402000	11,8	8,5		477600	11,9	11,8		553200	12,0	7,0
4	327600	11,5	12,0	5	403200	11,8	7,7	6	478800	11,9	12,5	7	554400	12,0	7,0
	328800	11,6	10,8		404400	11,8	7,6		480000	11,9	13,0		555600	12,0	7,0
	330000	11,6	10,0		405600	11,8	7,6		481200	11,9	13,2		556800	11,8	7,1
4	331200	11,6	9,2	5	406800	11,8	8,1	6	482400	11,8	13,8	7	558000	11,9	7,0
	332400	11,6	8,8		408000	11,8	7,7		483600	11,8	13,2		559200	11,8	7,0
	333600	11,7	8,3		409200	11,9	7,8		484800	11,7	13,3		560400	11,7	7,1
4	334800	11,7	7,8	5	410400	12	7,7	6	486000	11,9	13,0	7	561600	11,5	7,3
	336000	11,7	7,6		411600	12,1	7,6		487200	12,0	13,2		562800	11,7	7,5
	337200	11,8	7,0		412800	12,1	7,5		488400	12,0	13,2		564000	11,8	7,7
4	338400	11,9	6,4	5	414000	12,2	7,5	6	489600	12,0	13,1	7	565200	11,7	7,9
	339600	11,9	6,0		415200	12,3	7,4		490800	12,0	12,9		566400	11,7	8,1
	340800	12,0	5,5		416400	12,2	7,3		492000	12,0	12,9		567600	11,6	8,3
4	342000	11,9	5,0	5	417600	12,2	7,3	6	493200	12,1	12,7	7	568800	11,7	8,7
	343200	12,0	4,9		418800	12,2	7,0		494400	12,1	12,5		570000	11,6	9,1
	344400	12,1	4,7		420000	12,3	6,7		495600	12,1	12,0		571200	11,6	9,4
4	345600	12,1	4,3	5	421200	12,3	6,4	6	496800	12,2	11,6	7	572400	11,6	9,8
	346800	12,1	4,1		422400	12,4	6,2		498000	12,1	11,5		573600	11,6	10,2
	348000	12,2	4,1		423600	12,4	6,0		499200	12,2	11,2		574800	11,6	10,7
5	349200	12,2	3,8	5	424800	12,5	6,0	6	500400	12,2	11,0	7	576000	11,5	11,4
	350400	12,2	3,9		426000	12,5	5,8		501600	12,2	11,1		577200	11,4	11,7
	351600	12,3	3,5		427200	12,5	5,8		502800	12,2	10,9		578400	11,4	11,8
5	352800	12,4	3,3	5	428400	12,5	5,8	6	504000	12,3	10,5	7	579600	11,4	11,8
	354000	12,3	3,2		429600	12,5	5,6		505200	12,3	10,2		580800	11,3	11,7
	355200	12,3	3,2		430800	12,5	5,3		506400	12,4	10,0		582000	11,3	11,5
5	356400	12,3	3,1	5	432000	12,6	5,3	6	507600	12,4	9,9	7	583200	11,3	11,4
	357600	12,3	2,8		433200	12,6	5,2		508800	12,3	9,8		584400	11,4	11,1
	358800	12,4	2,9		434400	12,6	5,0		510000	12,3	9,7		585600	11,4	11,1
5	360000	12,4	2,9	6	435600	12,6	4,8	6	511200	12,2	9,5	7	586800	11,4	10,8
	361200	12,4	2,8		436800	12,6	4,6		512400	12,2	9,1		588000	11,4	10,6
	362400	12,3	2,3		438000	12,6	4,6		513600	12,1	8,9		589200	11,4	10,3
5	363600	12,3	2,3	6	439200	12,6	4,4	6	514800	12,2	8,7	7	590400	11,3	10,4
	364800	12,3	2,3		440400	12,6	4,5		516000	12,2	8,5		591600	11,3	10,3
	366000	12,3	2,4		441600	12,6	4,5		517200	12,2	8,4		592800	11,2	10,2
5	367200	12,3	2,3	6	442800	12,6	4,7	7	518400	12,3	8,3	7	594000	11,2	10,1
	368400	12,3	2,6		444000	12,6	4,8		519600	12,3	8,1		595200	11,2	10,0
	369600	12,3	3,2		445200	12,6	4,7		520800	12,3	8,0		596400	11,2	9,8
5	370800	12,3	3,7	6	446400	12,5	4,8	7	522000	12,2	7,9	7	597600	11,2	9,8
	372000	12,3	4,4		447600	12,5	4,9		523200	12,3	7,8		598800	11,2	10,0
	373200	12,2	4,9		448800	12,6	5,0		524400	12,4	7,7		600000	11,1	10,1
5	374400	12,3	5,4	6	450000	12,6	5,2	7	525600	12,4	7,6	7	601200	11,1	9,9
	375600	12,2	6,3		451200	12,5	5,3		526800	12,1	7,5		602400	11,2	9,8
	376800	12,2	6,9		452400	12,5	5,3		528000	12,2	7,4		603600	11,2	9,6

Set 1 - 8th to 20th of April

Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)
7	604800	11,2	9,46	8	680400	11,6	10,5	9	756000	11,9	11,8	10	831600	12,3	13,8
	606000	11,2	9,4		681600	11,5	10,3		757200	12,1	11,3		832800	12,4	13,8
	607200	11,1	9,3		682800	11,5	10,7		758400	12,1	10,8		834000	12,4	13,6
8	608400	11,1	9,3	8	684000	11,6	10,6	9	759600	12,1	10,5	10	835200	12,4	13,5
	609600	11,1	9,0		685200	11,6	10,5		760800	12,1	10,4		836400	12,5	13,8
	610800	11,1	8,8		686400	11,6	10,4		762000	12,3	10,0		837600	12,4	13,4
8	612000	11	8,7	8	687600	11,6	10,3	9	763200	12,3	9,4	10	838800	12,4	13,4
	613200	11,1	8,7		688800	11,7	10,2		764400	12,3	8,4		840000	12,5	13,7
	614400	11,1	8,6		690000	11,7	10,0		765600	12,4	8,1		841200	12,5	13,8
8	615600	11,1	8,6	8	691200	11,7	10,0	9	766800	12,5	7,8	10	842400	12,6	13,6
	616800	11	8,4		692400	11,7	9,9		768000	12,5	7,8		843600	12,7	13,3
	618000	11	8,3		693600	11,8	9,6		769200	12,6	7,8		844800	12,8	13,6
8	619200	11	8,1	9	694800	11,7	9,4	9	770400	12,6	8,2	10	846000	13	13,3
	620400	11	7,8		696000	11,7	9,3		771600	12,6	9,8		847200	13	12,5
	621600	10,9	7,6		697200	11,8	9,1		772800	12,7	9,7		848400	13,2	11,9
8	622800	11	7,5	9	698400	11,8	8,9	9	774000	12,7	9,4	10	849600	13,2	10,5
	624000	10,9	7,4		699600	11,8	8,7		775200	12,7	9,3		850800	13,2	10,1
	625200	10,8	7,3		700800	11,8	8,5		776400	12,8	9,1		852000	13,2	8,3
8	626400	10,9	7,2	9	702000	11,8	8,2	9	777600	12,8	8,6	10	853200	13,3	8,5
	627600	11	7,1		703200	11,8	8,0		778800	12,9	8,3		854400	13,3	8,6
	628800	10,9	7,1		704400	11,8	7,7		780000	12,9	7,6		855600	13,3	7,7
8	630000	11	7,1	9	705600	11,8	7,6	10	781200	12,9	7,7	10	856800	13,4	7,0
	631200	11	7,2		706800	11,8	7,4		782400	12,9	7,8		858000	13,4	6,5
	632400	11	7,5		708000	11,8	7,1		783600	13,0	7,8		859200	13,5	6,1
8	633600	10,9	7,7	9	709200	11,8	7,0	10	784800	13,0	7,8	10	860400	13,5	5,9
	634800	10,9	7,8		710400	11,8	6,8		786000	13,0	7,8		861600	13,5	5,7
	636000	11,1	8,2		711600	11,8	6,7		787200	13,0	7,2		862800	13,6	4,8
8	637200	11	8,8	9	712800	11,8	6,5	10	788400	13,0	7,3	10	864000	13,6	4,6
	638400	11	9,2		714000	11,8	6,5		789600	13,0	7,4		865200	13,7	4,4
	639600	10,9	9,6		715200	11,8	6,3		790800	13,0	7,3		866400	13,7	4,1
8	640800	10,9	10,4	9	716400	11,8	6,2	10	792000	13,0	6,4	11	867600	13,7	4,3
	642000	10,9	11,0		717600	11,8	6,4		793200	13,0	5,6		868800	13,7	5,7
	643200	10,8	11,6		718800	11,8	6,8		794400	13,0	5,0		870000	13,8	6,0
8	644400	10,8	11,8	9	720000	11,8	7,1	10	795600	13,0	4,6	11	871200	13,9	5,9
	645600	10,6	11,9		721200	11,7	7,9		796800	13,0	5,0		872400	13,5	5,8
	646800	10,6	12,3		722400	11,7	8,7		798000	13,0	4,6		873600	13	5,9
8	648000	10,7	12,8	9	723600	11,7	9,1	10	799200	12,9	5,3	11	874800	13,4	5,7
	649200	10,7	12,8		724800	11,7	9,3		800400	12,9	5,4		876000	13,3	5,6
	650400	10,8	12,8		726000	11,7	9,2		801600	13,0	5,8		877200	13,4	5,4
8	651600	10,9	13,8	9	727200	11,7	9,9	10	802800	12,9	6,0	11	878400	13,4	5,2
	652800	11	13,5		728400	11,7	10,1		804000	12,9	6,5		879600	13,4	5,0
	654000	11,2	13,6		729600	11,7	10,8		805200	12,9	6,6		880800	13,4	4,9
8	655200	11,1	13,3	9	730800	11,6	11,6	10	806400	12,9	6,8	11	882000	13,4	4,8
	656400	11	12,9		732000	11,6	12,1		807600	13,0	7,4		883200	13,5	4,6
	657600	11	12,2		733200	11,6	12,4		808800	12,8	8,0		884400	13,3	4,7
8	658800	11,1	12,2	9	734400	11,6	12,4	10	810000	12,8	8,5	11	885600	13,4	4,8
	660000	11	12,5		735600	11,6	12,2		811200	13,0	9,0		886800	13,4	5,0
	661200	11	12,4		736800	11,5	12,8		812400	12,8	9,5		888000	13,3	5,2
8	662400	11	12,0	9	738000	11,6	11,9	10	813600	12,8	10,2	11	889200	13,3	5,4
	663600	11	12,7		739200	11,6	11,8		814800	12,7	10,6		890400	13,3	5,7
	664800	11,1	12,9		740400	11,7	11,6		816000	12,6	10,9		891600	13,3	6,0
8	666000	11,1	12,9	9	741600	11,7	12,2	10	817200	12,6	12,2	11	892800	13,3	6,2
	667200	11,1	12,7		742800	11,8	12,2		818400	12,6	12,4		894000	13,3	6,1
	668400	11,2	12,5		744000	11,9	12,6		819600	12,6	12,4		895200	13,2	6,2
8	669600	11,2	12,3	9	745200	11,9	12,6	10	820800	12,5	11,8	11	896400	13	6,2
	670800	11,2	12,2		746400	11,8	11,7		822000	12,4	13,0		897600	12,7	6,4
	672000	11,4	12,1		747600	11,9	11,7		823200	12,4	13,5		898800	12,7	6,8
8	673200	11,4	11,9	9	748800	11,8	12,8	10	824400	12,4	13,9	11	900000	12,7	7,1
	674400	11,5	11,5		750000	11,6	13,2		825600	12,3	13,3		901200	12,9	7,3
	675600	11,5	11,2		751200	11,7	13,2		826800	12,3	14,0		902400	12,8	7,7
8	676800	11,5	10,9	9	752400	11,7	12,2	10	828000	12,4	13,9	11	903600	12,8	8,0
	678000	11,5	11,0		753600	11,8	11,7		829200	12,1	13,9		904800	12,7	8,3
	679200	11,5	10,6		754800	11,9	12,0		830400	12,3	13,9		906000	12,7	8,5

Set 1 - 8th to 20th of April

Day	Seconds	Temp inside box (°C)	Air temp (°C)
11	907200	12,6	8,8
	908400	12,7	8,9
	909600	12,6	9,0
11	910800	12,6	9,3
	912000	12,6	9,3
	913200	12,6	9,7
11	914400	12,6	9,6
	915600	12,5	9,9
	916800	12,5	9,9
11	918000	12,5	9,8
	919200	12,5	10,0
	920400	12,6	9,8
11	921600	12,6	9,7
	922800	12,6	9,6
	924000	12,6	9,5
11	925200	12,6	9,5
	926400	12,7	9,5
	927600	12,6	9,3
11	928800	12,7	9,2
	930000	12,7	9,1
	931200	12,7	9,0
11	932400	12,8	8,7
	933600	12,8	8,3
	934800	12,8	7,9
11	936000	12,8	7,2
	937200	12,8	6,7
	938400	12,9	6,1
11	939600	12,9	5,8
	940800	12,9	5,9
	942000	13,0	5,7
11	943200	13,0	5,1
	944400	12,9	4,4
	945600	12,9	4,1
11	946800	13,0	3,6
	948000	13,0	3,0
	949200	13,1	2,5
11	950400	13,1	2,2
	951600	13,1	2,0
	952800	13,1	1,8
12	954000	13,1	1,5
	955200	13,2	1,1
	956400	13,1	1,0
12	957600	13,1	0,9
	958800	13,1	0,7
	960000	13,1	0,6
12	961200	13,0	0,5
	962400	13,0	0,3
	963600	13,0	0,2
12	964800	12,9	0,1
	966000	12,9	0,0
	967200	12,9	0,1
12	968400	12,8	0,3
	969600	12,8	1,4
	970800	12,8	2,8
12	972000	12,7	3,1
	973200	12,6	3,3
	974400	12,6	4,0
12	975600	12,5	4,2
	976800	12,4	4,6
	978000	12,4	5,3
12	979200	12,3	6,0
	980400	12,2	6,7
	981600	12,1	7,7
12	982800	12,1	8,2
	984000	12,1	8,7
	985200	12,0	8,9
12	986400	12,0	9,0
	987600	11,9	9,6
	988800	11,6	10,1
12	990000	11,4	10,4
	991200	11,5	10,8
	992400	11,5	10,8
12	993600	11,3	10,7
	994800	11,5	10,5
	996000	11,4	10,7
12	997200	11,2	10,6
	998400	11,1	10,7
	999600	11,1	10,8
12	1000800	11,0	10,5
	1002000	11,0	10,2
	1003200	11,0	10,2
12	1004400	11,0	10,1
	1005600	10,9	9,9
	1006800	10,9	10,1
12	1008000	10,9	9,6
	1009200	10,9	9,5
	1010400	10,9	9,4
12	1011600	10,9	9,4
	1012800	10,9	9,2
	1014000	10,9	8,9
12	1015200	11,0	8,7
	1016400	11,2	8,6
	1017600	11,3	8,3
12	1018800	11,3	8,0
	1020000	11,4	7,8
	1021200	11,6	7,6
12	1022400	11,6	7,4
	1023600	11,6	7,3
	1024800	11,7	7,2
12	1026000	11,7	7,0
	1027200	11,8	7,0
	1028400	11,8	6,8
12	1029600	11,9	6,7
	1030800	12,0	6,6
	1032000	12,0	6,4
12	1033200	12,1	6,5
	1034400	12,1	6,3
	1035600	12,1	6,1
12	1036800	12,1	6,0
	1038000	12,1	5,6
	1039200	12,1	5,3
13	1040400	12,2	5,5
	1041600	12,1	4,6
	1042800	12,1	4,3
13	1044000	12,1	4,1
	1045200	12,1	3,7
	1046400	12,1	4,3
13	1047600	12,0	5,1
	1048800	12,1	5,4
	1050000	12,2	5,5
13	1051200	12,0	5,3
	1052400	12,0	5,3
	1053600	12,0	5,4
13	1054800	11,9	5,1
	1056000	11,8	4,9
	1057200	11,7	4,9
13	1058400	11,8	5,1
	1059600	11,8	5,2
	1060800	11,6	5,3
13	1062000	11,6	5,5
	1063200	11,7	5,8
	1064400	11,5	6,2
13	1065600	11,3	6,8
	1066800	11,3	7,4

Set 2 - 21st of April to 20th of May

Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)
1	0	12,0	6,3	1	75600	11,7	5,4	2	151200	11,2	13,2	3	226800	11,6	13,8
	1200	12,0	6,2		76800	11,8	4,6		152400	11,3	13,1		228000	11,6	13,6
	2400	12,1	6,0		78000	11,8	4,4		153600	11,4	12,9		229200	11,7	13,1
1	3600	12,1	5,3	1	79200	11,8	3,8	2	154800	11,5	12,7	3	230400	11,8	12,9
	4800	12,2	5,0		80400	11,9	3,6		156000	11,5	12,4		231600	11,8	13,2
	6000	12,1	4,6		81600	11,9	3,4		157200	11,5	11,3		232800	11,8	13,7
1	7200	12,2	4,4	1	82800	11,9	3,3	2	158400	11,5	10,5	3	234000	11,6	12,8
	8400	12,1	4,6		84000	11,9	3,1		159600	11,5	9,4		235200	11,8	12,3
	9600	12,1	4,8		85200	11,9	3,0		160800	11,6	8,7		236400	11,9	12,4
1	10800	12,2	5,0	1	86400	11,9	2,7	2	162000	11,5	8,3	3	237600	11,9	12,1
	12000	12,1	5,0		87600	11,9	2,3		163200	11,7	7,7		238800	11,9	12,1
	13200	12,1	5,0		88800	11,9	2,3		164400	11,7	7,0		240000	12,0	11,8
1	14400	12,1	4,7	2	90000	11,9	2,2	2	165600	11,7	5,8	3	241200	12,1	11,4
	15600	12,0	3,8		91200	11,9	2,0		166800	11,8	5,7		242400	12,2	10,8
	16800	12,0	3,4		92400	11,9	1,6		168000	11,8	6,0		243600	12,3	10,1
1	18000	12,0	3,1	2	93600	11,8	1,6	2	169200	11,8	5,1	3	244800	12,4	9,8
	19200	12,0	2,7		94800	11,8	1,6		170400	11,9	4,4		246000	12,5	9,3
	20400	12,1	2,8		96000	11,8	1,8		171600	11,9	4,0		247200	12,5	8,9
1	21600	12,0	2,8	2	97200	11,8	2,0	2	172800	11,9	4,4	3	248400	12,6	8,4
	22800	11,9	3,2		98400	11,7	1,9		174000	12,0	3,9		249600	12,8	7,3
	24000	11,9	4,0		99600	11,8	2,0		175200	12,0	3,5		250800	12,8	6,6
1	25200	11,9	4,4	2	100800	11,8	2,1	3	176400	12,1	3,1	3	252000	12,9	6,3
	26400	11,8	4,7		102000	11,8	2,2		177600	12,1	3,1		253200	12,9	6,1
	27600	12,0	4,9		103200	11,9	2,3		178800	12,1	3,0		254400	13,0	6,3
1	28800	12,0	5,1	2	104400	11,9	2,5	3	180000	12,1	2,6	3	255600	13,0	6,3
	30000	11,7	5,5		105600	11,7	2,7		181200	12,1	2,6		256800	13,1	6,4
	31200	11,6	6,0		106800	11,6	2,8		182400	12,2	2,4		258000	13,1	6,9
1	32400	11,6	6,5	2	108000	11,5	2,7	3	183600	12,2	2,2	3	259200	13,2	6,9
	33600	11,6	7,0		109200	11,6	2,8		184800	12,1	2,0		260400	13,2	7,1
	34800	11,5	7,6		110400	11,5	2,9		186000	12,2	1,9		261600	13,2	7,0
1	36000	11,5	8,5	2	111600	11,5	3,2	3	187200	12,2	1,8	4	262800	13,3	6,6
	37200	11,5	8,8		112800	11,3	3,4		188400	12,2	1,7		264000	13,2	6,2
	38400	11,5	9,4		114000	11,3	3,9		189600	12,2	1,6		265200	13,3	6,6
1	39600	11,3	10,3	2	115200	11,3	4,4	3	190800	12,2	1,5	4	266400	13,3	6,4
	40800	11,3	10,3		116400	11,3	5,1		192000	12,1	1,5		267600	13,3	6,3
	42000	11,2	9,7		117600	11,2	5,6		193200	12,1	1,7		268800	13,3	6,4
1	43200	11,2	10,5	2	118800	11,2	5,9	3	194400	12,0	2,0	4	270000	13,3	6,2
	44400	11,1	10,0		120000	11,2	6,2		195600	12,1	2,5		271200	13,3	6,1
	45600	11,1	10,1		121200	11,2	6,8		196800	12,1	3,3		272400	13,2	6,0
1	46800	11,1	9,4	2	122400	11,1	7,5	3	198000	12,1	3,9	4	273600	13,3	6,0
	48000	11,0	8,4		123600	11,1	8,2		199200	12,1	4,8		274800	13,3	5,9
	49200	11,1	8,2		124800	10,9	8,9		200400	12,0	5,8		276000	13,2	6,0
1	50400	11,1	9,2	2	126000	11,0	9,3	3	201600	12,0	6,7	4	277200	13,2	5,8
	51600	11,0	9,8		127200	10,9	9,7		202800	12,0	8,0		278400	13,2	5,6
	52800	11,0	9,2		128400	10,8	10,2		204000	11,9	9,0		279600	13,2	6,0
1	54000	11,0	8,6	2	129600	10,7	10,8	3	205200	11,9	9,9	4	280800	13,1	6,5
	55200	11,0	9,1		130800	10,6	11,2		206400	11,9	10,3		282000	12,9	7,1
	56400	11,0	10,0		132000	10,6	11,7		207600	11,9	11,4		283200	12,9	8,3
1	57600	10,9	9,7	2	133200	10,6	12,0	3	208800	11,8	12,3	4	284400	13,0	9,5
	58800	10,9	8,9		134400	10,6	12,1		210000	11,8	12,7		285600	12,9	10,0
	60000	11,0	8,8		135600	10,6	12,4		211200	11,7	13,3		286800	12,9	10,2
1	61200	11,0	8,4	2	136800	10,6	12,7	3	212400	11,7	13,5	4	288000	12,7	10,0
	62400	11,0	8,4		138000	10,7	12,8		213600	11,7	13,7		289200	12,6	10,1
	63600	11,1	8,9		139200	10,7	12,8		214800	11,6	13,3		290400	12,7	10,4
1	64800	11,2	8,5	2	140400	10,7	13,0	3	216000	11,6	13,2	4	291600	12,4	10,7
	66000	11,2	8,4		141600	10,8	13,2		217200	11,7	14,3		292800	12,3	11,0
	67200	11,2	8,4		142800	10,8	13,2		218400	11,7	14,3		294000	12,3	11,2
1	68400	11,3	8,0	2	144000	11,0	13,2	3	219600	11,5	14,1	4	295200	12,2	11,3
	69600	11,3	7,6		145200	11,0	13,4		220800	11,7	14,1		296400	12,0	11,7
	70800	11,3	7,1		146400	11,0	13,5		222000	11,7	13,9		297600	12,2	11,7
1	72000	11,5	6,6	2	147600	11,0	13,4	3	223200	11,6	13,4	4	298800	12,1	11,8
	73200	11,6	6,1		148800	11,0	13,2		224400	11,7	13,0		300000	12,1	11,6
	74400	11,7	5,7		150000	11,1	13,3		225600	11,7	13,1		301200	12,1	12,3

Set 2 - 21st of April to 20th of May

Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)
4	302400	12,1	12,4	5	378000	13,2	12,8	6	453600	15	5,5	7	529200	14,8	10,1
	303600	12,1	12,7		379200	13,2	13,0		454800	15	6,2		530400	14,7	10,4
	304800	12,1	13,0		380400	13,1	13,2		456000	15,0	6,8		531600	14,6	10,6
4	306000	12,0	12,8	5	381600	13,1	13,8	6	457200	14,9	7,6	7	532800	14,5	10,7
	307200	12,1	13,2		382800	13,1	14,1		458400	14,8	9,1		534000	14,5	9,4
	308400	12,1	13,2		384000	13,1	14,7		459600	14,9	9,5		535200	14,5	9,0
4	309600	12,0	13,4	5	385200	13,1	14,9	6	460800	14,8	10,3	7	536400	14,5	8,9
	310800	12,0	13,9		386400	13,1	15,1		462000	14,8	10,8		537600	14,5	9,0
	312000	12,0	13,6		387600	13,1	15,3		463200	14,7	11,0		538800	14,5	8,5
4	313200	12,0	13,8	5	388800	13,1	15,7	6	464400	14,7	11,5	7	540000	14,5	8,6
	314400	12,0	13,8		390000	13,1	16,0		465600	14,7	11,7		541200	14,5	9,5
	315600	12,1	14,0		391200	13,1	15,7		466800	14,6	12,0		542400	14,5	10,3
4	316800	12,2	13,7	5	392400	13,1	16,2	6	468000	14,6	12,0	7	543600	14,4	10,4
	318000	12,2	13,7		393600	13,1	16,6		469200	14,6	12,3		544800	14,4	10,6
	319200	12,3	13,9		394800	13,2	16,7		470400	14,5	12,6		546000	14,4	10,9
4	320400	12,3	13,5	5	396000	13,5	17,1	6	471600	14,5	12,6	7	547200	14,4	11,1
	321600	12,3	13,3		397200	13,2	17,3		472800	14,4	13,0		548400	14,4	11,7
	322800	12,4	13,2		398400	13,3	17,2		474000	14,4	13,2		549600	14,4	12,2
4	324000	12,4	13,0	5	399600	13,3	17,0	6	475200	14,5	12,3	7	550800	14,4	13,4
	325200	12,4	12,8		400800	13,3	17,3		476400	14,4	11,4		552000	14,4	14,5
	326400	12,5	12,8		402000	13,3	17,1		477600	14,4	12,0		553200	14,3	15,1
4	327600	12,5	12,5	5	403200	13,3	16,6	6	478800	14,4	12,9	7	554400	14,3	15,5
	328800	12,6	12,0		404400	13,4	16,0		480000	14,2	13,3		555600	14,3	15,7
	330000	12,6	11,6		405600	13,5	16,4		481200	14,2	13,4		556800	14,3	16,3
4	331200	12,9	11,2	5	406800	13,6	16,3	6	482400	14,2	13,6	7	558000	14,2	15,9
	332400	12,9	10,7		408000	13,5	15,6		483600	14,2	14,6		559200	14,3	15,4
	333600	13,1	10,3		409200	13,6	16,0		484800	14,2	15,3		560400	14,4	15,7
4	334800	13,1	10,0	5	410400	13,7	15,6	6	486000	14,3	14,5	7	561600	14,4	15,6
	336000	13,2	10,0		411600	13,7	14,6		487200	14,3	14,0		562800	14,4	15,6
	337200	13,3	9,9		412800	13,8	14,4		488400	14,2	13,6		564000	14,4	15,1
4	338400	13,4	9,8	5	414000	13,9	13,8	6	489600	14,0	13,3	7	565200	14,3	15,9
	339600	13,4	9,6		415200	13,8	12,9		490800	14,0	13,1		566400	14,3	15,6
	340800	13,4	9,4		416400	13,9	12,4		492000	13,9	12,8		567600	14,2	16,7
4	342000	13,5	9,3	5	417600	13,9	11,8	6	493200	13,8	12,7	7	568800	14,3	17,6
	343200	13,5	9,3		418800	14	10,6		494400	13,9	12,8		570000	14,2	18,0
	344400	13,6	9,0		420000	14,1	10,1		495600	14,0	12,9		571200	14,2	16,9
4	345600	13,6	7,9	5	421200	14,3	9,9	6	496800	14,1	12,7	7	572400	14,3	15,9
	346800	13,6	7,4		422400	14,3	10,2		498000	14,1	12,3		573600	14,3	15,2
	348000	13,6	7,7		423600	14,4	9,6		499200	14,2	12,0		574800	14,4	14,6
5	349200	13,6	7,0	5	424800	14,4	9,2	6	500400	14,3	11,9	7	576000	14,4	14,9
	350400	13,7	6,0		426000	14,5	9,5		501600	14,3	11,7		577200	14,4	15,5
	351600	13,6	5,4		427200	14,6	10,5		502800	14,4	11,5		578400	14,3	15,2
5	352800	13,7	5,3	5	428400	14,6	9,3	6	504000	14,4	11,4	7	579600	14,3	14,7
	354000	13,7	5,1		429600	14,7	7,7		505200	14,5	11,2		580800	14,4	15,5
	355200	13,7	5,1		430800	14,7	7,1		506400	14,5	10,9		582000	14,5	16,0
5	356400	13,7	4,5	5	432000	14,8	6,5	6	507600	14,5	10,6	7	583200	14,5	16,3
	357600	13,7	4,4		433200	14,8	6,3		508800	14,5	9,8		584400	14,6	16,1
	358800	13,7	4,3		434400	14,9	6,0		510000	14,6	9,5		585600	14,7	15,7
5	360000	13,6	4,1	6	435600	14,9	5,8	6	511200	14,6	9,1	7	586800	14,7	15,4
	361200	13,6	4,1		436800	14,9	5,7		512400	14,6	8,9		588000	14,6	14,9
	362400	13,6	3,6		438000	15	6,0		513600	14,7	9,3		589200	14,7	14,4
5	363600	13,6	3,7	6	439200	15	6,3	6	514800	14,7	8,9	7	590400	14,7	13,7
	364800	13,6	3,8		440400	15	5,3		516000	14,7	8,9		591600	14,8	12,9
	366000	13,5	3,8		441600	15	5,9		517200	14,7	8,4		592800	14,7	12,4
5	367200	13,6	4,2	6	442800	15	5,9	7	518400	14,7	8,8	7	594000	14,7	12,3
	368400	13,5	4,5		444000	15	5,3		519600	14,7	9,9		595200	14,9	12,1
	369600	13,4	5,2		445200	15	5,4		520800	14,7	10,4		596400	15,0	12,2
5	370800	13,4	5,9	6	446400	15	5,8	7	522000	14,8	11,0	7	597600	15,1	12,7
	372000	13,4	6,7		447600	15	5,3		523200	14,7	10,0		598800	15,1	12,2
	373200	13,4	7,7		448800	15,1	6,3		524400	14,7	9,6		600000	15,2	11,0
5	374400	13,3	9,4	6	450000	15	6,7	7	525600	14,7	8,6	7	601200	15,0	10,9
	375600	13,3	10,8		451200	15	6,2		526800	14,7	8,5		602400	14,5	10,7
	376800	13,3	12,3		452400	15	5,4		528000	14,7	8,8		603600	14,6	10,3

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Set 2 - 21st of April to 20th of May

Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)
7	604800	15	9,9	8	680400	14,6	10,9	9	756000	15,5	17,5	10	831600	15,5	18,8
	606000	15	9,7		681600	14,6	11,7		757200	15,5	17,2		832800	15,5	18,9
	607200	14,6	9,4		682800	14,6	12,0		758400	15,6	17,1		834000	15,6	18,8
8	608400	14,6	9,3	8	684000	14,6	12,0	9	759600	15,5	16,8	10	835200	15,7	18,5
	609600	14,6	9,3		685200	14,6	11,9		760800	15,6	16,5		836400	15,8	18,4
	610800	14,5	9,3		686400	14,7	11,8		762000	15,6	16,0		837600	15,8	18,4
8	612000	14,8	9,4	8	687600	14,7	11,5	9	763200	15,6	15,6	10	838800	15,7	18,2
	613200	14,8	9,2		688800	14,6	11,2		764400	15,6	15,4		840000	15,8	18,0
	614400	15	9,1		690000	14,7	11,1		765600	15,5	15,1		841200	16	17,8
8	615600	14,9	9,1	8	691200	14,7	10,9	9	766800	15,5	14,8	10	842400	15,9	17,7
	616800	14,9	9,1		692400	14,7	10,7		768000	15,4	14,6		843600	15,8	17,4
	618000	14,8	9,0		693600	14,6	10,4		769200	15,4	14,3		844800	15,8	17,1
8	619200	14,6	9,0	9	694800	14,7	10,1	9	770400	15,3	13,4	10	846000	15,9	16,8
	620400	14,9	9,0		696000	14,8	10,3		771600	15,2	13,1		847200	15,9	16,4
	621600	14,7	9,0		697200	14,9	10,0		772800	15,3	13,2		848400	16	16,0
8	622800	14,8	9,0	9	698400	15,0	9,7	9	774000	15,2	12,9	10	849600	16,1	15,6
	624000	14,9	8,9		699600	14,9	9,4		775200	15,2	12,7		850800	16,2	15,3
	625200	14,9	8,9		700800	15,0	9,2		776400	15,2	12,5		852000	16,1	15,0
8	626400	14,8	9,0	9	702000	15,0	9,0	9	777600	15,1	12,3	10	853200	16,1	14,8
	627600	15	9,0		703200	15,0	9,4		778800	15,1	12,1		854400	16,2	14,5
	628800	15	9,0		704400	15,0	10,2		780000	15,0	11,9		855600	16,1	14,2
8	630000	15	9,0	9	705600	15,0	9,8	10	781200	15,0	11,6	10	856800	16,1	14,0
	631200	14,9	9,1		706800	14,9	10,0		782400	15,1	11,4		858000	16,2	13,7
	632400	14,9	9,3		708000	14,7	10,2		783600	15,2	11,1		859200	16,2	13,4
8	633600	14,9	9,5	9	709200	14,8	9,9	10	784800	15,3	10,7	10	860400	16,3	13,1
	634800	14,8	9,6		710400	14,6	9,7		786000	15,3	10,3		861600	16,4	12,8
	636000	14,8	9,7		711600	14,4	10,0		787200	15,1	10,0		862800	16,5	12,6
8	637200	14,8	9,9	9	712800	14,6	10,3	10	788400	15,1	9,9	10	864000	16,5	12,4
	638400	14,7	9,7		714000	14,6	10,7		789600	15,1	9,8		865200	16,6	12,0
	639600	14,7	10,0		715200	14,5	10,9		790800	15,0	9,5		866400	16,6	11,6
8	640800	14,7	10,3	9	716400	14,6	11,0	10	792000	14,9	9,4	11	867600	16,7	11,4
	642000	14,7	10,3		717600	14,3	11,2		793200	14,9	9,3		868800	16,7	11,2
	643200	14,6	10,4		718800	14,3	11,4		794400	14,9	9,0		870000	16,7	11,1
8	644400	14,6	10,2	9	720000	14,3	11,8	10	795600	15,2	8,8	11	871200	16,6	11,0
	645600	14,5	10,6		721200	14,2	12,3		796800	15,3	8,7		872400	16,7	11,0
	646800	14,5	10,9		722400	14,2	12,7		798000	15,3	8,8		873600	16,8	10,8
8	648000	14,4	11,7	9	723600	14,1	13,2	10	799200	15,4	8,8	11	874800	16,7	10,5
	649200	14,5	11,3		724800	14,1	13,6		800400	15,5	8,8		876000	16,7	10,4
	650400	14,4	11,4		726000	14,1	13,9		801600	15,5	9,0		877200	16,8	9,7
8	651600	14,5	11,6	9	727200	14,1	13,8	10	802800	15,5	9,4	11	878400	16,8	9,5
	652800	14,4	13,2		728400	14,2	13,5		804000	15,5	9,8		879600	16,8	9,0
	654000	14,4	13,5		729600	14,2	12,8		805200	15,5	10,1		880800	16,8	8,2
8	655200	14,4	13,6	9	730800	14,2	13,3	10	806400	15,5	10,5	11	882000	16,8	7,7
	656400	14,3	13,3		732000	14,1	13,9		807600	15,4	11,0		883200	16,8	7,6
	657600	14,4	14,3		733200	14,1	14,4		808800	15,4	11,5		884400	16,8	7,8
8	658800	14,4	14,8	9	734400	14,2	15,1	10	810000	15,4	12,0	11	885600	16,7	8,3
	660000	14,4	14,9		735600	14,2	15,6		811200	15,3	12,4		886800	16,7	8,7
	661200	14,4	14,6		736800	14,3	15,8		812400	15,3	12,7		888000	16,7	9,0
8	662400	14,3	14,0	9	738000	14,5	16,2	10	813600	15,3	13,2	11	889200	16,8	9,4
	663600	14,3	13,2		739200	14,6	16,7		814800	15,2	13,8		890400	16,7	9,8
	664800	14,3	13,4		740400	14,6	17,1		816000	15,0	14,2		891600	16,7	10,2
8	666000	14,3	14,0	9	741600	14,7	17,3	10	817200	15,0	14,7	11	892800	16,6	10,9
	667200	14,3	13,1		742800	14,9	17,3		818400	15,0	15,1		894000	16,7	11,2
	668400	14,2	13,7		744000	15,0	17,4		819600	15,0	16,0		895200	16,6	11,9
8	669600	14,3	13,7	9	745200	15,0	17,4	10	820800	14,9	16,4	11	896400	16,6	12,4
	670800	14,3	13,0		746400	15,1	17,5		822000	15,0	16,6		897600	16,5	12,9
	672000	14,3	13,1		747600	15,1	17,5		823200	15,0	16,9		898800	16,4	13,4
8	673200	14,4	12,3	9	748800	15,2	17,6	10	824400	15,1	17,4	11	900000	16,5	14,3
	674400	14,3	11,5		750000	15,3	17,7		825600	15,2	18,1		901200	16,4	15,4
	675600	14,4	10,9		751200	15,3	17,5		826800	15,4	18,3		902400	16,4	15,7
8	676800	14,5	10,9	9	752400	15,4	17,5	10	828000	15,4	18,2	11	903600	16,4	15,8
	678000	14,4	10,8		753600	15,4	17,5		829200	15,6	18,4		904800	16,2	16,9
	679200	14,5	10,6		754800	15,5	17,5		830400	15,4	18,7		906000	16,2	17,5

Set 2 - 21st of April to 20th of May

Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)
11	907200	16,2	17,4	12	982800	16,7	12,6	13	1058400	16	8,3	14	1134000	15,1	4,3
	908400	16,1	17,5		984000	16,5	12,5		1059600	15,9	8,5		1135200	15,1	4,0
	909600	16,1	17,2		985200	16,5	12,6		1060800	15,9	8,5		1136400	15,1	3,7
11	910800	16,0	17,2	12	986400	16,4	13,0	13	1062000	15,8	8,6	14	1137600	15,0	3,6
	912000	16,0	17,7		987600	16,4	13,7		1063200	15,8	8,9		1138800	15,0	3,7
	913200	16,1	17,8		988800	16,1	13,4		1064400	15,8	9,1		1140000	14,9	3,5
11	914400	16,1	17,7	12	990000	16,3	13,8	13	1065600	15,7	8,7	14	1141200	14,9	3,7
	915600	16,1	17,7		991200	16,2	13,7		1066800	15,7	8,8		1142400	14,9	3,8
	916800	16,2	17,8		992400	15,9	13,4		1068000	15,6	9,4		1143600	14,8	4,2
11	918000	16,2	17,5	12	993600	16,2	13,6	13	1069200	15,6	9,4	14	1144800	14,8	4,7
	919200	16,2	17,4		994800	15,9	13,1		1070400	15,6	10,2		1146000	14,7	5,0
	920400	16,1	17,4		996000	15,8	13,3		1071600	15,5	10,4		1147200	14,6	5,6
11	921600	16,2	16,9	12	997200	16,0	12,7	13	1072800	15,5	10,9	14	1148400	14,6	6,5
	922800	16,2	16,6		998400	15,8	13,2		1074000	15,4	11,7		1149600	14,6	6,8
	924000	16,2	16,8		999600	15,9	13,7		1075200	15,4	11,7		1150800	14,5	7,2
11	925200	16,2	16,8	12	1000800	15,9	12,8	13	1076400	15,4	12,1	14	1152000	14,4	7,6
	926400	16,2	15,9		1002000	16,0	13,2		1077600	15,4	12,4		1153200	14,4	7,8
	927600	16,4	15,2		1003200	15,8	13,8		1078800	15,3	12,0		1154400	14,4	8,5
11	928800	16,4	15,9	12	1004400	15,8	13,0	13	1080000	15,3	12,2	14	1155600	14,5	9,2
	930000	16,5	16,2		1005600	15,9	12,8		1081200	15,2	12,4		1156800	14,4	9,5
	931200	16,5	15,6		1006800	16,1	12,5		1082400	15,1	11,8		1158000	14,3	10,4
11	932400	16,5	14,8	12	1008000	16,1	12,0	13	1083600	15	11,7	14	1159200	14,1	10,8
	933600	16,6	13,8		1009200	15,9	12,2		1084800	15	11,8		1160400	14,1	11,3
	934800	16,7	13,2		1010400	15,9	12,2		1086000	14,9	12,2		1161600	14,0	11,4
11	936000	16,9	12,6	12	1011600	16,0	12,2	13	1087200	14,8	12,0	14	1162800	14,0	12,3
	937200	16,9	11,8		1012800	16,2	12,2		1088400	14,7	11,6		1164000	13,9	13,3
	938400	17,1	10,8		1014000	16,3	12,1		1089600	14,7	11,8		1165200	13,8	13,2
11	939600	17,1	9,8	12	1015200	16,3	12,4	13	1090800	14,7	11,5	14	1166400	13,7	13,6
	940800	17,2	9,6		1016400	16,3	12,5		1092000	14,6	11,0		1167600	13,7	13,4
	942000	17,2	9,1		1017600	16,3	12,5		1093200	14,8	10,7		1168800	13,6	12,8
11	943200	17,3	8,5	12	1018800	16,2	12,1	13	1094400	14,7	10,6	14	1170000	13,6	12,8
	944400	17,4	7,8		1020000	16,2	11,9		1095600	14,7	10,6		1171200	13,6	12,8
	945600	17,4	7,8		1021200	16,2	11,7		1096800	14,8	10,5		1172400	13,3	13,5
11	946800	17,5	7,7	12	1022400	16,3	11,4	13	1098000	14,9	10,3	14	1173600	13,3	13,3
	948000	17,5	6,9		1023600	16,4	11,0		1099200	14,7	10,1		1174800	13,1	13,2
	949200	17,6	6,2		1024800	16,5	10,6		1100400	14,8	10,1		1176000	13,3	13,2
11	950400	17,7	6,0	12	1026000	16,5	10,3	13	1101600	14,8	10,0	14	1177200	13,3	13,2
	951600	17,7	5,9		1027200	16,5	10,0		1102800	14,7	9,9		1178400	13,3	13,2
	952800	17,7	5,5		1028400	16,4	9,8		1104000	14,8	9,8		1179600	13,1	13,2
12	954000	17,7	5,5	12	1029600	16,5	9,7	13	1105200	14,8	9,5	14	1180800	13,1	13,4
	955200	17,7	5,5		1030800	16,5	9,7		1106400	14,8	9,3		1182000	13,0	13,7
	956400	17,8	5,4		1032000	16,5	9,7		1107600	15	9,2		1183200	13,2	13,3
12	957600	17,7	5,4	12	1033200	16,4	9,6	13	1108800	15,1	8,9	14	1184400	13,2	13,0
	958800	17,8	5,4		1034400	16,4	9,4		1110000	15,1	8,6		1185600	13,3	12,8
	960000	17,7	5,3		1035600	16,1	9,1		1111200	15,3	8,3		1186800	13,3	12,8
12	961200	17,7	5,4	12	1036800	16,4	9,0	13	1112400	15,3	7,9	14	1188000	13,3	12,6
	962400	17,8	5,4		1038000	16,5	9,0		1113600	15,3	7,6		1189200	13,4	12,3
	963600	17,8	4,8		1039200	16,4	9,0		1114800	15,3	7,4		1190400	13,4	11,7
12	964800	17,7	7,7	13	1040400	16,5	9,0	13	1116000	15,3	7,2	14	1191600	13,4	11,0
	966000	17,7	8,7		1041600	16,5	9,2		1117200	15,3	7,1		1192800	13,3	10,4
	967200	17,7	8,8		1042800	16,5	9,5		1118400	15,3	7,0		1194000	13,4	10,2
12	968400	17,6	8,9	13	1044000	16,3	9,5	13	1119600	15,3	6,9	14	1195200	13,3	10,1
	969600	17,6	9,1		1045200	16,3	9,6		1120800	15,3	6,6		1196400	13,2	9,9
	970800	17,6	9,4		1046400	16,3	9,7		1122000	15,3	6,4		1197600	13,3	9,8
12	972000	17,6	9,4	13	1047600	16,3	9,6	13	1123200	15,3	6,3	14	1198800	13,1	9,6
	973200	17,6	9,7		1048800	16,3	9,2		1124400	15,3	6,0		1200000	13,0	9,6
	974400	17,5	10,1		1050000	16,3	9,1		1125600	15,3	5,7		1201200	12,9	9,6
12	975600	17,4	10,5	13	1051200	16,2	8,9	14	1126800	15,3	5,4	14	1202400	12,9	9,5
	976800	17,2	11,2		1052400	16,1	8,6		1128000	15,2	5,3		1203600	12,9	9,3
	978000	17,1	11,8		1053600	16,1	8,5		1129200	15,2	5,1		1204800	12,7	9,2
12	979200	17,1	11,8	13	1054800	16,1	8,1	14	1130400	15,2	5,1	14	1206000	13,0	9,1
	980400	17,1	12,0		1056000	16,1	7,9		1131600	15,1	4,7		1207200	12,9	9,1
	981600	16,9	12,2		1057200	16,0	8,1		1132800	15,1	4,4		1208400	12,8	9,0

Set 2 - 21st of April to 20th of May

Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)
14	1209600	12,8	8,9	15	1285200	12,9	10,8	16	1360800	13,1	13,1	17	1436400	12,1	11,6
	1210800	12,8	8,8		1286400	12,9	10,8		1362000	13,3	13,3		1437600	12,0	11,3
	1212000	12,8	8,6		1287600	13,2	10,8		1363200	13,1	13,2		1438800	12,0	11,6
15	1213200	12,9	7,9	15	1288800	13,2	10,8	16	1364400	13,0	13,3	17	1440000	12,0	11,6
	1214400	12,9	7,8		1290000	13,1	10,7		1365600	13,0	13,1		1441200	12,0	11,5
	1215600	13,0	7,7		1291200	13,1	10,5		1366800	13,1	12,7		1442400	12,0	11,7
15	1216800	13,0	7,5	15	1292400	13,0	10,3	16	1368000	13,4	12,3	17	1443600	11,9	11,7
	1218000	13,0	7,5		1293600	13,0	10,1		1369200	13,5	11,8		1444800	11,9	11,4
	1219200	13,1	7,7		1294800	13,1	10,0		1370400	13,5	11,5		1446000	11,9	11,1
15	1220400	13,3	7,6	15	1296000	13,1	9,8	16	1371600	13,6	11,0	17	1447200	12,0	11,1
	1221600	13,7	7,6		1297200	12,9	9,6		1372800	13,6	10,9		1448400	11,9	10,8
	1222800	13,5	7,7		1298400	12,8	9,5		1374000	13,5	10,6		1449600	11,8	10,4
15	1224000	13,5	7,7	16	1299600	12,8	9,4	16	1375200	13,7	10,3	17	1450800	11,8	10,3
	1225200	13,4	7,8		1300800	12,9	9,4		1376400	13,8	10,2		1452000	11,9	10,0
	1226400	13,6	8,1		1302000	13,1	9,0		1377600	13,8	9,9		1453200	11,9	9,8
15	1227600	13,6	8,4	16	1303200	13,2	8,7	16	1378800	14,0	9,5	17	1454400	11,8	9,7
	1228800	13,5	8,6		1304400	13,2	8,6		1380000	13,9	9,3		1455600	11,8	9,6
	1230000	13,5	8,9		1305600	13,5	8,5		1381200	14,0	9,0		1456800	11,8	9,6
15	1231200	13,3	9,1	16	1306800	13,6	8,3	16	1382400	14,2	8,9	17	1458000	11,7	9,3
	1232400	13,3	9,0		1308000	13,3	8,1		1383600	14,3	9,2		1459200	11,7	9,3
	1233600	13,2	9,0		1309200	13,4	8,1		1384800	14,3	8,6		1460400	11,6	9,2
15	1234800	13,2	9,2	16	1310400	13,4	8,0	17	1386000	14,2	8,0	17	1461600	11,6	9,3
	1236000	12,9	9,2		1311600	13,5	8,0		1387200	14,1	7,0		1462800	11,6	9,4
	1237200	12,9	9,3		1312800	13,5	7,8		1388400	14,4	6,3		1464000	11,7	9,3
15	1238400	12,9	9,3	16	1314000	13,7	7,5	17	1389600	14,4	6,5	17	1465200	11,6	9,2
	1239600	12,8	9,5		1315200	13,6	7,4		1390800	14,4	6,8		1466400	11,7	8,8
	1240800	12,9	9,7		1316400	13,7	7,5		1392000	14,4	7,3		1467600	11,7	8,6
15	1242000	13,0	9,9	16	1317600	13,7	7,4	17	1393200	14,4	7,8	17	1468800	11,6	8,5
	1243200	12,9	10,0		1318800	13,7	7,6		1394400	14,4	7,9		1470000	11,7	8,5
	1244400	13,0	10,4		1320000	13,8	8,0		1395600	14,4	8,0		1471200	11,9	8,3
15	1245600	13,0	10,8	16	1321200	13,7	8,3	17	1396800	14,4	8,0	18	1472400	11,7	8,2
	1246800	13,1	10,6		1322400	13,7	8,4		1398000	13,7	8,2		1473600	11,8	8,1
	1248000	13,0	10,8		1323600	13,7	8,5		1399200	13,5	7,9		1474800	12,0	8,0
15	1249200	13,0	11,3	16	1324800	13,8	8,9	17	1400400	13,9	7,0	18	1476000	11,9	7,8
	1250400	13,0	12,1		1326000	13,7	9,3		1401600	13,7	6,4		1477200	12,1	7,8
	1251600	12,9	12,6		1327200	13,7	9,4		1402800	13,6	6,2		1478400	12,1	7,8
15	1252800	13,0	13,2	16	1328400	13,6	9,3	17	1404000	13,4	6,1	18	1479600	12,1	7,7
	1254000	13,0	13,3		1329600	13,5	9,7		1405200	13,7	6,0		1480800	12,1	7,7
	1255200	12,8	13,4		1330800	13,6	10,4		1406400	13,9	6,2		1482000	12,1	7,6
15	1256400	12,8	13,7	16	1332000	13,5	10,8	17	1407600	13,8	6,2	18	1483200	12,0	7,5
	1257600	12,8	14,0		1333200	13,5	11,1		1408800	13,9	6,3		1484400	12,1	7,5
	1258800	12,6	14,6		1334400	13,4	10,9		1410000	13,9	6,3		1485600	12,0	7,5
15	1260000	12,6	14,6	16	1335600	13,3	11,2	17	1411200	13,9	6,3	18	1486800	12,1	7,2
	1261200	12,6	14,8		1336800	13,2	11,8		1412400	13,8	6,6		1488000	12,2	7,2
	1262400	12,6	14,7		1338000	13,1	12,5		1413600	13,6	6,9		1489200	12,3	7,3
15	1263600	12,7	15,0	16	1339200	13,0	12,7	17	1414800	13,6	7,2	18	1490400	12,3	7,5
	1264800	12,8	15,0		1340400	13,2	12,8		1416000	13,5	7,6		1491600	12,3	7,6
	1266000	12,8	14,6		1341600	13,2	13,5		1417200	13,4	8,3		1492800	12,3	7,9
15	1267200	12,8	14,4	16	1342800	13,0	13,1	17	1418400	13,4	9,3	18	1494000	12,3	8,2
	1268400	12,9	14,5		1344000	12,8	13,0		1419600	13,4	9,7		1495200	12,3	8,4
	1269600	12,9	14,8		1345200	12,9	13,3		1420800	13,4	9,7		1496400	12,1	8,5
15	1270800	12,9	14,8	16	1346400	12,8	13,4	17	1422000	13,1	10,0	18	1497600	12,2	8,6
	1272000	13,0	14,3		1347600	12,7	13,0		1423200	12,7	10,1		1498800	12,0	8,5
	1273200	13,2	13,6		1348800	12,7	13,0		1424400	12,5	10,2		1500000	11,8	8,5
15	1274400	13,3	13,2	16	1350000	13,0	13,0	17	1425600	12,5	10,2	18	1501200	11,9	8,3
	1275600	13,2	12,9		1351200	12,8	12,8		1426800	12,4	10,1		1502400	11,8	8,1
	1276800	13,1	12,5		1352400	12,8	13,0		1428000	12,3	10,4		1503600	11,8	8,1
15	1278000	12,9	12,2	16	1353600	12,8	13,6	17	1429200	12,3	11,0	18	1504800	11,8	8,4
	1279200	12,9	11,6		1354800	12,7	13,9		1430400	12,3	11,2		1506000	11,8	8,7
	1280400	12,8	11,1		1356000	12,7	13,8		1431600	12,2	11,6		1507200	11,6	9,1
15	1281600	12,8	10,8	16	1357200	12,9	13,7	17	1432800	12,2	11,2	18	1508400	11,6	9,4
	1282800	12,7	10,6		1358400	13,1	14,2		1434000	12,2	11,2		1509600	11,7	9,6
	1284000	12,7	10,7		1359600	13,0	13,3		1435200	12,2	11,6		1510800	11,6	9,9

Set 2 - 21st of April to 20th of May

Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)
18	1512000	11,5	10,2	19	1587600	10,5	10,2	20	1663200	11,3	8,5	21	1738800	12,1	4,8
	1513200	11,5	10,8		1588800	10,6	10,5		1664400	11,3	8,7		1740000	12,1	4,9
	1514400	11,5	11,0		1590000	10,6	10,4		1665600	11,2	9,0		1741200	12,1	4,9
18	1515600	11,4	11,1	19	1591200	10,5	10,5	20	1666800	11,0	8,8	21	1742400	12,1	4,8
	1516800	11,5	11,3		1592400	10,6	11,2		1668000	10,9	8,6		1743600	12,1	5,4
	1518000	11,4	11,5		1593600	10,6	11,5		1669200	10,8	7,4		1744800	12,2	5,6
18	1519200	11,4	11,5	19	1594800	10,6	11,6	20	1670400	10,8	8,3	21	1746000	12,3	5,9
	1520400	11,4	11,0		1596000	10,6	11,1		1671600	10,8	8,3		1747200	12,2	6,2
	1521600	11,4	10,5		1597200	10,7	11,1		1672800	10,6	8,4		1748400	12,1	6,4
18	1522800	11,4	10,2	19	1598400	10,7	11,2	20	1674000	10,6	8,6	21	1749600	11,8	6,6
	1524000	11,3	10,6		1599600	10,7	11,0		1675200	10,5	8,7		1750800	11,5	6,9
	1525200	11,2	10,7		1600800	10,7	10,9		1676400	10,6	9,0		1752000	11,4	7,0
18	1526400	11,2	10,8	19	1602000	10,7	10,9	20	1677600	10,5	9,3	21	1753200	11,4	6,9
	1527600	11,2	10,5		1603200	10,7	11,0		1678800	10,5	9,5		1754400	11,2	7,1
	1528800	11,2	10,4		1604400	10,6	11,0		1680000	10,4	10,2		1755600	11,2	7,5
18	1530000	11,2	10,2	19	1605600	10,6	11,3	20	1681200	10,4	10,5	21	1756800	11,3	7,6
	1531200	11,1	10,2		1606800	10,6	11,1		1682400	10,5	10,8		1758000	11,4	7,9
	1532400	11,1	10,2		1608000	10,7	11,3		1683600	10,6	11,0		1759200	11,3	8,1
18	1533600	11,1	9,9	19	1609200	10,7	11,1	20	1684800	10,6	10,9	21	1760400	11,2	8,6
	1534800	11,1	9,7		1610400	10,8	10,8		1686000	10,7	11,4		1761600	11,3	8,9
	1536000	11,1	9,8		1611600	10,8	10,9		1687200	10,7	11,9		1762800	11,3	9,3
18	1537200	11,0	9,8	19	1612800	10,8	10,9	20	1688400	10,7	12,3	21	1764000	11,4	9,2
	1538400	11,0	9,7		1614000	10,8	10,9		1689600	10,8	12,6		1765200	11,3	9,4
	1539600	10,9	9,3		1615200	10,8	10,7		1690800	10,8	12,9		1766400	11,3	9,6
18	1540800	11,0	9,1	19	1616400	10,8	10,4	20	1692000	10,8	12,5	21	1767600	11,3	10,0
	1542000	10,9	9,0		1617600	10,9	10,5		1693200	10,9	12,5		1768800	11,3	10,3
	1543200	10,9	9,0		1618800	10,9	10,2		1694400	11,0	12,6		1770000	11,3	10,6
18	1544400	10,9	8,9	19	1620000	10,8	10,2	20	1695600	11,0	12,7	21	1771200	11,4	10,7
	1545600	10,9	8,8		1621200	10,8	10,2		1696800	11,0	12,6		1772400	11,4	10,9
	1546800	10,9	8,7		1622400	10,8	10,0		1698000	11,1	11,6		1773600	11,4	11,2
18	1548000	10,9	8,5	19	1623600	10,8	9,8	20	1699200	11,1	11,4	21	1774800	11,4	11,4
	1549200	10,9	8,6		1624800	10,9	9,5		1700400	11,1	11,8		1776000	11,4	11,7
	1550400	10,9	8,7		1626000	10,9	9,3		1701600	11,1	11,7		1777200	11,4	11,8
18	1551600	10,9	8,6	19	1627200	10,8	9,1	20	1702800	11,0	12,4	21	1778400	11,4	12,1
	1552800	11,0	8,7		1628400	10,9	9,0		1704000	11,0	11,9		1779600	11,6	11,9
	1554000	11,0	8,6		1629600	10,9	9,0		1705200	11,1	11,0		1780800	11,6	12,1
18	1555200	11,0	8,7	19	1630800	10,9	8,8	20	1706400	11,2	11,4	21	1782000	11,6	12,5
	1556400	10,9	8,8		1632000	10,9	8,7		1707600	11,1	11,6		1783200	11,7	12,5
	1557600	10,9	9,0		1633200	10,9	8,6		1708800	11,1	11,3		1784400	11,7	12,6
19	1558800	10,8	9,0	19	1634400	11,0	8,6	20	1710000	11,1	11,1	21	1785600	11,7	12,5
	1560000	10,9	9,1		1635600	11,0	8,5		1711200	11,2	10,8		1786800	11,8	12,6
	1561200	10,8	9,1		1636800	11,0	8,4		1712400	11,2	10,5		1788000	11,9	12,8
19	1562400	10,8	9,1	19	1638000	11,0	8,4	20	1713600	11,2	10,3	21	1789200	11,9	12,6
	1563600	10,7	9,1		1639200	11,0	8,3		1714800	11,4	10,2		1790400	12,0	12,9
	1564800	10,8	9,1		1640400	11,1	8,3		1716000	11,4	9,8		1791600	12,0	13,1
19	1566000	10,8	8,9	19	1641600	11,1	8,1	20	1717200	11,3	9,5	21	1792800	12,1	13,1
	1567200	10,7	8,8		1642800	11,1	8,0		1718400	11,5	9,2		1794000	12,1	13,1
	1568400	10,7	8,7		1644000	11,2	8,0		1719600	11,7	8,8		1795200	12,2	12,9
19	1569600	10,7	8,6	20	1645200	11,1	7,7	20	1720800	11,6	8,5	21	1796400	12,3	12,8
	1570800	10,7	8,5		1646400	11,1	7,5		1722000	11,7	8,4		1797600	12,3	12,6
	1572000	10,6	8,4		1647600	11,2	7,3		1723200	11,8	8,3		1798800	12,4	12,4
19	1573200	10,6	8,5	20	1648800	11,4	7,2	20	1724400	11,8	8,2	21	1800000	12,5	11,9
	1574400	10,7	8,7		1650000	11,6	7,1		1725600	11,8	7,9		1801200	12,5	11,0
	1575600	10,7	9,0		1651200	11,4	7,2		1726800	11,9	7,6		1802400	12,5	10,1
19	1576800	10,6	9,3	20	1652400	11,6	7,5	20	1728000	11,9	7,3	21	1803600	12,6	9,0
	1578000	10,6	9,4		1653600	11,8	7,9		1729200	12,0	6,9		1804800	12,6	8,6
	1579200	10,6	9,4		1654800	11,7	8,4		1730400	12,0	6,5		1806000	12,6	8,0
19	1580400	10,8	9,5	20	1656000	11,8	8,6	21	1731600	12,0	5,8	21	1807200	12,6	7,2
	1581600	10,7	9,6		1657200	11,8	8,6		1732800	12,0	5,7		1808400	12,9	6,7
	1582800	10,6	9,7		1658400	11,7	8,6		1734000	12,0	5,6		1809600	12,8	6,2
19	1584000	10,5	9,9	20	1659600	11,6	8,8	21	1735200	12,0	5,4	21	1810800	12,7	6,1
	1585200	10,5	9,9		1660800	11,5	8,9		1736400	12,1	5,2		1812000	12,8	5,7
	1586400	10,5	10,1		1662000	11,5	8,7		1737600	12,1	4,9		1813200	12,8	5,2

Set 2 - 21st of April to 20th of May

Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)
21	1814400	12,9	4,9	22	1890000	13,9	10,2	23	1965600	14,9	14,4	24	2041200	14,3	10,2
	1815600	12,9	4,7		1891200	14,0	10,2		1966800	14,9	14,3		2042400	14,4	10,5
	1816800	13,0	4,8		1892400	14,1	9,8		1968000	15,0	14,4		2043600	14,3	9,4
22	1818000	13,0	4,0	22	1893600	14,3	9,6	23	1969200	15,0	14,3	24	2044800	14,3	9,4
	1819200	13,1	3,9		1894800	14,3	9,7		1970400	15,1	14,2		2046000	14,3	10,1
	1820400	13,1	3,5		1896000	14,4	9,6		1971600	15,2	13,9		2047200	14,3	10,5
22	1821600	13,1	3,5	22	1897200	14,5	9,4	23	1972800	15,2	13,4	24	2048400	14,2	10,9
	1822800	13,1	3,4		1898400	14,5	9,6		1974000	15,3	13,1		2049600	14,6	11,2
	1824000	13,2	2,9		1899600	14,6	9,9		1975200	15,2	12,8		2050800	14,6	10,7
22	1825200	13,1	2,9	22	1900800	14,7	10,5	23	1976400	15,3	12,3	24	2052000	14,7	10,8
	1826400	13,2	2,9		1902000	14,7	10,8		1977600	15,3	11,7		2053200	14,4	10,8
	1827600	13,2	2,8		1903200	14,8	10,8		1978800	15,3	11,3		2054400	14,5	10,9
22	1828800	13,2	2,7	23	1904400	14,8	11,0	23	1980000	15,4	10,9	24	2055600	14,4	11,2
	1830000	13,2	2,9		1905600	14,8	11,1		1981200	15,4	10,6		2056800	14,5	11,2
	1831200	13,2	2,9		1906800	14,9	10,9		1982400	15,4	10,4		2058000	14,5	11,0
22	1832400	13,2	3,0	23	1908000	14,8	10,6	23	1983600	15,5	10,4	24	2059200	14,6	10,5
	1833600	13,1	3,2		1909200	14,7	10,3		1984800	15,5	10,1		2060400	14,6	9,8
	1834800	13,1	4,1		1910400	14,7	10,2		1986000	15,5	10,0		2061600	14,6	9,4
22	1836000	13,1	5,8	23	1911600	14,9	10,0	23	1987200	15,6	9,7	24	2062800	14,6	8,9
	1837200	13,1	5,9		1912800	14,9	9,8		1988400	15,6	9,4		2064000	14,7	8,6
	1838400	13,0	6,3		1914000	14,9	9,7		1989600	15,6	9,5		2065200	14,6	7,7
22	1839600	13,0	7,2	23	1915200	14,9	9,4	24	1990800	15,6	9,3	24	2066400	14,6	7,2
	1840800	13,0	7,9		1916400	15,0	9,0		1992000	15,7	9,2		2067600	14,6	7,3
	1842000	13,0	8,6		1917600	15,0	8,9		1993200	15,6	9,2		2068800	14,6	7,2
22	1843200	13,0	9,4	23	1918800	14,9	8,9	24	1994400	15,7	9,2	24	2070000	14,5	7,1
	1844400	13,0	10,2		1920000	14,9	8,9		1995600	15,7	9,1		2071200	14,6	6,8
	1845600	13,0	10,3		1921200	15,0	8,9		1996800	15,7	9,0		2072400	14,6	6,4
22	1846800	13,0	10,9	23	1922400	15,0	8,9	24	1998000	15,7	9,0	24	2073600	14,6	5,8
	1848000	12,9	11,5		1923600	14,9	9,0		1999200	15,7	9,1		2074800	14,7	5,4
	1849200	12,8	12,1		1924800	14,9	9,3		2000400	15,7	9,2		2076000	14,5	4,6
22	1850400	12,8	12,4	23	1926000	15,0	9,7	24	2001600	15,6	9,0	25	2077200	14,5	4,3
	1851600	12,7	12,7		1927200	15,0	9,8		2002800	15,6	8,8		2078400	14,6	4,0
	1852800	12,8	13,1		1928400	15,0	10,0		2004000	15,7	9,0		2079600	14,5	4,2
22	1854000	12,8	13,0	23	1929600	15,0	10,1	24	2005200	15,6	9,3	25	2080800	14,4	3,9
	1855200	12,5	13,6		1930800	14,9	10,4		2006400	15,6	9,2		2082000	14,5	3,7
	1856400	12,6	13,6		1932000	14,8	10,8		2007600	15,7	9,1		2083200	14,3	3,1
22	1857600	12,7	13,9	23	1933200	14,7	11,1	24	2008800	15,7	8,9	25	2084400	14,3	2,6
	1858800	12,8	14,6		1934400	14,8	11,5		2010000	15,7	9,0		2085600	14,3	2,7
	1860000	12,9	14,6		1935600	14,7	11,7		2011200	15,6	9,3		2086800	14,3	2,6
22	1861200	12,8	15,1	23	1936800	14,7	12,0	24	2012400	15,7	9,1	25	2088000	14,3	2,5
	1862400	12,7	14,4		1938000	14,7	12,3		2013600	15,6	9,3		2089200	14,3	3,1
	1863600	12,9	15,0		1939200	14,8	12,6		2014800	15,6	9,2		2090400	14,2	3,2
22	1864800	12,8	14,7	23	1940400	14,7	12,9	24	2016000	15,5	8,9	25	2091600	14,2	3,5
	1866000	12,8	14,6		1941600	14,7	12,9		2017200	15,5	8,8		2092800	14,1	3,9
	1867200	12,9	14,8		1942800	14,8	13,1		2018400	15,4	8,8		2094000	14,1	4,7
22	1868400	13,1	14,8	23	1944000	14,7	13,2	24	2019600	15,3	9,0	25	2095200	14,0	5,5
	1869600	13,3	14,9		1945200	14,8	13,5		2020800	15,3	9,1		2096400	14,2	6,3
	1870800	13,3	15,5		1946400	14,7	13,6		2022000	15,3	9,3		2097600	14,2	7,2
22	1872000	13,4	15,7	23	1947600	14,7	13,6	24	2023200	15,2	7,6	25	2098800	14,2	8,1
	1873200	13,4	15,8		1948800	14,6	13,6		2024400	15,2	7,3		2100000	14,1	8,4
	1874400	13,5	15,0		1950000	14,6	13,8		2025600	15,1	7,5		2101200	14,0	8,5
22	1875600	13,6	15,1	23	1951200	14,6	13,9	24	2026800	14,6	7,6	25	2102400	13,9	8,8
	1876800	13,6	14,7		1952400	14,6	13,9		2028000	14,6	8,0		2103600	13,7	9,1
	1878000	13,3	14,7		1953600	14,7	14,2		2029200	14,3	8,7		2104800	13,4	9,6
22	1879200	13,5	14,5	23	1954800	14,7	14,0	24	2030400	14,5	9,1	25	2106000	13,4	10,3
	1880400	13,5	13,7		1956000	14,6	14,2		2031600	14,8	10,0		2107200	13,4	10,8
	1881600	13,5	13,4		1957200	14,7	14,3		2032800	15,0	10,4		2108400	13,4	11,2
22	1882800	13,5	13,3	23	1958400	14,8	14,2	24	2034000	14,9	10,7	25	2109600	13,3	11,5
	1884000	13,4	13,6		1959600	14,7	14,2		2035200	14,9	10,7		2110800	13,2	12,0
	1885200	13,5	12,9		1960800	14,7	14,6		2036400	14,8	10,7		2112000	13,2	12,5
22	1886400	13,7	11,9	23	1962000	14,8	14,4	24	2037600	14,8	9,4	25	2113200	13,2	12,6
	1887600	13,8	11,4		1963200	14,8	14,5		2038800	14,8	10,3		2114400	13,2	13,3
	1888800	13,8	10,9		1964400	14,9	14,5		2040000	14,7	10,1		2115600	13,1	13,6

Set 2 - 21st of April to 20th of May

Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)
25	2116800	13,1	13,8	26	2192400	14,8	11,9	27	2268000	16,2	7,9	28	2343600	16,6	9,1
	2118000	13,1	14,1		2193600	14,7	12,2		2269200	16,2	8,2		2344800	16,6	9,1
	2119200	13,2	14,4		2194800	14,5	12,6		2270400	16,2	8,5		2346000	16,6	9,0
25	2120400	13,2	14,4	26	2196000	14,5	13,1	27	2271600	16,2	9,0	28	2347200	16,5	9,0
	2121600	13,2	14,8		2197200	14,4	13,6		2272800	16,3	9,7		2348400	16,6	9,1
	2122800	13,3	14,9		2198400	14,3	13,9		2274000	16,1	10,2		2349600	16,6	9,0
25	2124000	13,4	15,4	26	2199600	14,3	14,1	27	2275200	16,1	10,6	28	2350800	16,5	9,0
	2125200	13,4	15,5		2200800	14,4	14,5		2276400	16,1	11,2		2352000	16,4	9,0
	2126400	13,5	15,6		2202000	14,4	14,8		2277600	16,0	11,9		2353200	16,4	8,9
25	2127600	13,5	15,7	26	2203200	14,3	15,2	27	2278800	15,9	12,1	28	2354400	16,5	8,8
	2128800	13,6	16,0		2204400	14,4	15,6		2280000	15,9	12,4		2355600	16,4	8,7
	2130000	13,7	16,1		2205600	14,4	16,0		2281200	15,6	12,5		2356800	16,4	8,7
25	2131200	13,7	16,4	26	2206800	14,5	16,2	27	2282400	15,5	12,7	28	2358000	16,3	8,7
	2132400	13,8	16,4		2208000	14,6	16,1		2283600	15,5	12,9		2359200	16,3	8,6
	2133600	13,8	16,6		2209200	14,7	16,5		2284800	15,5	13,6		2360400	16,3	8,7
25	2134800	13,9	16,6	26	2210400	14,7	16,9	27	2286000	15,5	13,4	28	2361600	16,2	8,8
	2136000	14,1	16,6		2211600	14,8	17,0		2287200	15,4	13,4		2362800	16,2	8,9
	2137200	14,2	16,9		2212800	14,8	17,3		2288400	15,3	13,7		2364000	16,2	9,1
25	2138400	14,3	16,8	26	2214000	14,8	17,2	27	2289600	15,4	13,6	28	2365200	16,1	9,2
	2139600	14,4	16,6		2215200	14,8	17,1		2290800	15,3	14,0		2366400	16,1	9,3
	2140800	14,5	16,6		2216400	14,9	16,8		2292000	15,5	14,0		2367600	16,0	9,4
25	2142000	14,5	16,4	26	2217600	14,9	16,8	27	2293200	15,3	14,4	28	2368800	16,0	9,4
	2143200	14,6	16,1		2218800	14,9	16,7		2294400	15,3	14,6		2370000	16,0	9,6
	2144400	14,7	15,7		2220000	15,0	16,6		2295600	15,4	14,5		2371200	15,9	9,9
25	2145600	14,6	15,2	26	2221200	15,0	16,6	27	2296800	15,3	14,9	28	2372400	15,9	10,1
	2146800	14,6	14,8		2222400	15,2	16,4		2298000	15,4	15,2		2373600	15,9	10,4
	2148000	14,6	14,3		2223600	15,2	16,4		2299200	15,5	15,1		2374800	15,9	10,8
25	2149200	14,5	13,4	26	2224800	15,2	15,8	27	2300400	15,4	15,4	28	2376000	15,8	10,9
	2150400	14,5	12,8		2226000	15,2	15,7		2301600	15,4	15,6		2377200	15,7	11,0
	2151600	14,5	12,3		2227200	15,3	15,6		2302800	15,5	15,7		2378400	15,7	11,0
25	2152800	14,5	11,9	26	2228400	15,2	15,4	27	2304000	15,5	15,7	28	2379600	15,7	11,4
	2154000	14,6	10,7		2229600	15,3	15,3		2305200	15,5	15,4		2380800	15,6	11,8
	2155200	14,6	10,3		2230800	15,3	15,0		2306400	15,6	15,4		2382000	15,7	12,1
25	2156400	14,6	9,7	26	2232000	15,4	14,5	27	2307600	15,6	15,3	28	2383200	15,6	11,9
	2157600	14,6	9,4		2233200	15,5	14,3		2308800	15,6	15,2		2384400	15,6	12,2
	2158800	14,7	8,3		2234400	15,4	14,0		2310000	15,7	15,0		2385600	15,6	12,7
25	2160000	14,8	7,8	26	2235600	15,4	13,7	27	2311200	15,6	14,9	28	2386800	15,6	12,9
	2161200	14,8	6,8		2236800	15,6	13,3		2312400	15,7	14,7		2388000	15,6	13,0
	2162400	14,9	6,8		2238000	15,6	12,9		2313600	15,7	14,5		2389200	15,4	13,5
26	2163600	14,9	6,6	26	2239200	15,7	12,5	27	2314800	15,7	14,4	28	2390400	15,5	14,4
	2164800	14,9	6,3		2240400	15,7	12,3		2316000	15,8	14,2		2391600	15,5	14,9
	2166000	15,0	5,7		2241600	15,8	12,0		2317200	15,9	14,1		2392800	15,5	13,3
26	2167200	15,0	5,3	26	2242800	15,8	11,7	27	2318400	15,9	14,0	28	2394000	15,4	12,8
	2168400	15,0	5,1		2244000	15,9	11,4		2319600	16,0	13,9		2395200	15,4	12,8
	2169600	15,1	5,0		2245200	15,9	11,1		2320800	16,0	13,8		2396400	15,2	12,6
26	2170800	15,1	4,4	26	2246400	15,9	11,0	27	2322000	15,9	13,7	28	2397600	15,2	11,3
	2172000	15,1	4,3		2247600	16,1	10,9		2323200	16,1	13,7		2398800	15,1	11,1
	2173200	15,1	4,2		2248800	16,1	10,7		2324400	16,1	13,6		2400000	15,1	11,0
26	2174400	15,1	4,4	27	2250000	16,2	10,5	27	2325600	16,1	13,5	28	2401200	14,8	10,9
	2175600	15,1	5,2		2251200	16,2	10,1		2326800	16,2	13,4		2402400	14,6	10,7
	2176800	15,2	5,8		2252400	16,1	9,6		2328000	16,1	13,3		2403600	14,8	10,6
26	2178000	15,2	6,5	27	2253600	16,3	9,6	27	2329200	16,1	13,2	28	2404800	15,0	10,6
	2179200	15,4	7,1		2254800	16,2	9,4		2330400	16,2	13,0		2406000	15,1	10,5
	2180400	15,2	7,4		2256000	16,3	9,1		2331600	16,3	12,3		2407200	15,2	10,5
26	2181600	15,2	7,9	27	2257200	16,3	8,9	27	2332800	16,4	11,4	28	2408400	15,3	10,4
	2182800	15,2	8,4		2258400	16,4	8,5		2334000	16,4	11,0		2409600	15,3	10,4
	2184000	15,1	8,8		2259600	16,3	7,9		2335200	16,5	10,6		2410800	15,3	10,3
26	2185200	15,0	9,1	27	2260800	16,2	7,2	28	2336400	16,5	10,2	28	2412000	15,3	10,2
	2186400	15,0	9,4		2262000	16,3	7,2		2337600	16,6	9,9		2413200	15,3	9,9
	2187600	14,9	10,0		2263200	16,3	7,8		2338800	16,6	9,6		2414400	15,3	9,6
26	2188800	14,8	10,4	27	2264400	16,3	8,0	28	2340000	16,6	9,5	28	2415600	15,4	9,2
	2190000	14,8	10,9		2265600	16,3	7,9		2341200	16,6	9,6		2416800	15,4	9,5
	2191200	14,7	11,4		2266800	16,3	7,8		2342400	16,6	9,4		2418000	15,4	9,6

Set 2 - 21st of April to 20th of May

Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)
28	2419200	15,4	9,7	29	2494800	15,0	11,5	30	2570400	14,6	12,3
	2420400	15,4	9,7		2496000	15,1	11,3		2571600	14,6	12,3
	2421600	15,4	9,7		2497200	15,1	10,9		2572800	14,6	12,0
29	2422800	15,3	9,7	29	2498400	15,2	10,6	30	2574000	14,7	11,8
	2424000	15,4	9,8		2499600	15,2	10,5		2575200	14,6	11,7
	2425200	15,3	9,7		2500800	15,2	10,3		2576400	14,7	11,3
29	2426400	15,3	9,7	29	2502000	15,2	10,1	30	2577600	14,6	10,8
	2427600	15,3	9,7		2503200	15,3	9,8		2578800	14,8	10,6
	2428800	15,3	9,8		2504400	15,4	9,8		2580000	14,7	10,4
29	2430000	15,3	9,8	29	2505600	15,4	10,0	30	2581200	14,6	10,6
	2431200	15,3	9,9		2506800	15,4	9,7		2582400	14,5	10,6
	2432400	15,3	9,9		2508000	15,4	9,4		2583600	14,6	10,6
29	2433600	15,2	9,9	30	2509200	15,4	9,2	30	2584800	14,7	10,6
	2434800	15,2	9,8		2510400	15,4	9,1		2586000	14,9	10,6
	2436000	15,2	9,8		2511600	15,4	9,0		2587200	14,9	10,6
29	2437200	15,2	10,0	30	2512800	15,4	8,9	30	2588400	14,9	10,7
	2438400	15,1	10,1		2514000	15,4	8,5				
	2439600	14,9	10,2		2515200	15,4	8,3				
29	2440800	14,9	10,3	30	2516400	15,4	8,4				
	2442000	14,9	10,4		2517600	15,4	8,4				
	2443200	14,9	10,6		2518800	15,4	8,5				
29	2444400	14,9	10,5	30	2520000	15,4	8,4				
	2445600	14,9	10,6		2521200	15,4	8,5				
	2446800	14,9	11,3		2522400	15,4	8,3				
29	2448000	14,7	11,7	30	2523600	15,4	8,3				
	2449200	14,6	11,7		2524800	15,4	8,6				
	2450400	14,7	11,5		2526000	15,3	9,2				
29	2451600	14,7	12,1	30	2527200	15,3	9,9				
	2452800	14,6	12,0		2528400	15,3	10,4				
	2454000	14,5	11,9		2529600	15,2	10,6				
29	2455200	14,5	12,5	30	2530800	15,2	10,9				
	2456400	14,4	12,7		2532000	15,2	11,2				
	2457600	14,3	12,4		2533200	15,2	11,6				
29	2458800	14,2	13,5	30	2534400	15,2	11,8				
	2460000	14,2	13,4		2535600	15,2	12,3				
	2461200	14,2	13,3		2536800	15,1	13,0				
29	2462400	14,2	13,0	30	2538000	15,1	13,2				
	2463600	14,2	13,0		2539200	15,1	12,0				
	2464800	14,2	13,2		2540400	15,1	11,8				
29	2466000	14,1	13,6	30	2541600	15,1	11,4				
	2467200	14,1	13,6		2542800	14,9	11,1				
	2468400	14,1	14,4		2544000	14,8	10,5				
29	2469600	14,2	14,6	30	2545200	14,8	9,8				
	2470800	14,2	13,8		2546400	14,7	10,0				
	2472000	14,2	14,3		2547600	14,6	10,4				
29	2473200	14,3	14,0	30	2548800	14,7	10,7				
	2474400	14,2	13,8		2550000	14,8	11,2				
	2475600	14,2	13,7		2551200	14,8	11,8				
29	2476800	14,2	13,1	30	2552400	14,8	12,1				
	2478000	14,2	12,8		2553600	14,7	12,5				
	2479200	14,2	13,3		2554800	14,8	12,7				
29	2480400	14,2	13,3	30	2556000	14,8	13,2				
	2481600	14,3	13,2		2557200	14,8	13,3				
	2482800	14,3	13,5		2558400	14,8	13,7				
29	2484000	14,5	13,9	30	2559600	14,8	14,0				
	2485200	14,5	13,5		2560800	14,8	14,2				
	2486400	14,6	13,2		2562000	14,8	14,1				
29	2487600	14,6	13,0	30	2563200	14,6	13,5				
	2488800	14,5	12,7		2564400	14,6	13,0				
	2490000	14,6	12,6		2565600	14,6	12,9				
29	2491200	14,8	12,3	30	2566800	14,7	12,7				
	2492400	14,9	12,1		2568000	14,7	12,7				
	2493600	15,0	11,8		2569200	14,5	12,5				

Set 3 - 21st of May to 20th of June

Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)
1	0	14,9	10,8	1	75600	14,5	10,2	2	151200	13,1	9,3	3	226800	13,1	16,9
	1200	14,9	11,0		76800	14,6	9,7		152400	13	9,2		228000	13,1	16,9
	2400	14,8	11,0		78000	14,5	9,0		153600	13	9,0		229200	13,2	16,5
1	3600	14,9	11,1	1	79200	14,6	8,7	2	154800	13,1	9,1	3	230400	13,2	16,3
	4800	14,9	11,1		80400	14,6	8,5		156000	13	9,2		231600	13,3	16,3
	6000	14,8	11,1		81600	14,7	8,3		157200	13,1	9,2		232800	13,3	16,0
1	7200	14,8	11,1	1	82800	14,7	8,3	2	158400	12,8	9,0	3	234000	13,4	15,5
	8400	14,7	11,1		84000	14,7	8,2		159600	13	9,0		235200	13,5	15,5
	9600	14,7	11,0		85200	14,7	8,0		160800	13,1	9,0		236400	13,6	15,4
1	10800	14,5	10,8	1	86400	14,7	7,6	2	162000	12,7	8,8	3	237600	13,6	15,0
	12000	14,5	10,7		87600	14,7	7,3		163200	12,7	8,7		238800	13,6	14,9
	13200	14,3	10,6		88800	14,7	7,2		164400	12,6	8,6		240000	13,7	14,8
1	14400	14,4	10,5	2	90000	14,8	7,4	2	165600	12,9	8,5	3	241200	13,7	14,8
	15600	14,4	10,4		91200	14,8	7,6		166800	12,9	8,4		242400	13,7	14,5
	16800	14,2	10,5		92400	14,8	7,9		168000	13	8,4		243600	13,7	14,3
1	18000	14,3	10,6	2	93600	14,8	8,3	2	169200	12,9	8,4	3	244800	13,9	14,0
	19200	14,2	10,6		94800	14,9	8,5		170400	13	8,4		246000	13,9	13,6
	20400	14,2	10,6		96000	14,9	8,7		171600	12,8	8,4		247200	14,0	13,1
1	21600	14,1	10,7	2	97200	14,9	8,7	2	172800	12,9	8,5	3	248400	14,0	12,8
	22800	13,9	10,8		98400	14,9	8,8		174000	12,9	8,4		249600	14,1	12,4
	24000	14,1	11,0		99600	14,9	8,8		175200	12,9	8,5		250800	14,2	11,7
1	25200	13,9	11,0	2	100800	14,8	8,6	3	176400	12,9	8,5	3	252000	14,3	11,6
	26400	14,2	11,0		102000	14,8	8,3		177600	12,8	8,5		253200	14,4	11,3
	27600	14,2	10,9		103200	14,8	8,0		178800	12,8	8,6		254400	14,6	11,3
1	28800	14,0	11,2	2	104400	14,7	7,9	3	180000	12,8	8,7	3	255600	14,6	11,1
	30000	13,9	11,3		105600	14,6	8,0		181200	12,8	8,7		256800	14,6	10,8
	31200	13,8	11,5		106800	14,5	8,1		182400	12,8	8,8		258000	14,6	10,7
1	32400	13,8	11,9	2	108000	14,4	8,1	3	183600	12,8	8,9	3	259200	14,7	10,7
	33600	13,7	12,2		109200	14,5	8,0		184800	12,7	8,8		260400	14,6	10,8
	34800	13,9	12,1		110400	14,6	7,9		186000	12,7	8,3		261600	14,7	10,9
1	36000	13,9	11,7	2	111600	14,5	8,0	3	187200	12,7	7,9	4	262800	14,8	10,9
	37200	13,6	11,9		112800	14,4	8,1		188400	12,7	7,8		264000	14,9	11,0
	38400	13,7	11,9		114000	14,4	8,0		189600	12,6	7,9		265200	14,9	11,0
1	39600	13,6	12,2	2	115200	14,4	8,1	3	190800	12,6	8,4	4	266400	14,9	11,0
	40800	13,4	12,2		116400	14,4	8,1		192000	12,6	8,6		267600	15,0	10,9
	42000	13,5	12,5		117600	14,3	8,2		193200	12,6	9,3		268800	14,9	10,9
1	43200	13,5	12,2	2	118800	14,3	8,3	3	194400	12,5	9,6	4	270000	14,9	10,8
	44400	13,6	13,1		120000	14,2	8,4		195600	12,5	9,3		271200	14,9	10,8
	45600	13,7	13,2		121200	14,2	8,6		196800	12,5	9,7		272400	15,0	10,9
1	46800	13,6	12,9	2	122400	14,2	8,8	3	198000	12,4	10,3	4	273600	15,0	11,0
	48000	13,8	13,3		123600	14,2	8,8		199200	12,4	11,0		274800	15,0	11,2
	49200	13,8	13,1		124800	14,2	8,8		200400	12,4	11,0		276000	15,0	11,2
1	50400	13,8	12,9	2	126000	14,2	9,0	3	201600	12,4	11,5	4	277200	15,0	11,2
	51600	13,9	12,6		127200	14,1	9,3		202800	12,4	11,9		278400	15,0	11,3
	52800	13,8	12,0		128400	14,1	9,3		204000	12,3	12,5		279600	15,0	11,6
1	54000	13,8	11,5	2	129600	14,1	9,5	3	205200	12,3	12,8	4	280800	15,0	11,8
	55200	13,8	11,6		130800	14,0	9,5		206400	12,3	13,0		282000	15,1	12,0
	56400	13,9	11,9		132000	14,0	9,7		207600	12,4	13,2		283200	15,1	12,4
1	57600	13,9	11,3	2	133200	14,0	9,8	3	208800	12,3	14,1	4	284400	15,0	12,5
	58800	14,0	11,2		134400	13,9	9,9		210000	12,3	14,7		285600	15,0	12,9
	60000	13,9	11,3		135600	13,9	10,0		211200	12,1	15,0		286800	15,0	13,0
1	61200	13,8	11,6	2	136800	13,9	10,0	3	212400	12,2	15,2	4	288000	14,9	13,2
	62400	13,9	11,5		138000	13,9	10,0		213600	12,3	15,9		289200	15,0	13,5
	63600	14,1	12,0		139200	13,9	9,4		214800	12,2	16,4		290400	15,0	13,7
1	64800	14,1	12,4	2	140400	13,6	9,1	3	216000	12,3	16,6	4	291600	15,0	13,9
	66000	14,1	12,8		141600	13,4	9,1		217200	12,4	16,8		292800	15,0	14,2
	67200	14,2	12,6		142800	13,2	9,1		218400	12,4	16,9		294000	15,0	13,7
1	68400	14,3	12,9	2	144000	12,9	9,2	3	219600	12,5	17,2	4	295200	14,9	13,4
	69600	14,3	13,0		145200	13,2	9,1		220800	12,7	17,7		296400	14,9	13,4
	70800	14,4	12,8		146400	13,2	9,0		222000	12,7	17,4		297600	14,7	13,6
1	72000	14,4	12,2	2	147600	13,1	9,0	3	223200	12,8	17,0	4	298800	14,6	13,1
	73200	14,4	11,5		148800	13,2	9,0		224400	12,9	17,1		300000	14,6	13,2
	74400	14,5	10,8		150000	13,1	9,1		225600	13,1	17,0		301200	14,4	13,0

Set 3 - 21st of May to 20th of June

Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)
4	302400	14,2	13,2	5	378000	15,5	13,2	6	453600	17,1	11,8	7	529200	14,7	11,2
	303600	14,3	13,8		379200	15,5	13,5		454800	17,1	12,2		530400	14,5	11,0
	304800	14,2	13,5		380400	15,4	13,8		456000	17,0	12,9		531600	14,6	11,0
4	306000	14,2	13,8	5	381600	15,5	14,6	6	457200	16,9	13,2	7	532800	14,5	11,1
	307200	14,3	13,7		382800	15,4	15,7		458400	16,9	13,5		534000	14,7	11,0
	308400	14,4	13,7		384000	15,4	16,1		459600	16,9	14,1		535200	15,1	11,0
4	309600	14,3	13,9	5	385200	15,4	16,5	6	460800	16,8	14,4	7	536400	15,0	11,1
	310800	14,5	14,3		386400	15,3	16,9		462000	16,9	14,6		537600	14,9	11,3
	312000	14,6	14,4		387600	15,2	16,8		463200	16,8	14,6		538800	14,9	11,4
4	313200	14,6	14,4	5	388800	15,2	16,8	6	464400	16,7	14,8	7	540000	14,8	11,6
	314400	14,6	14,3		390000	15,2	16,8		465600	16,6	14,9		541200	14,7	11,7
	315600	14,6	13,5		391200	15,2	17,3		466800	16,6	14,8		542400	14,6	11,8
4	316800	14,6	13,5	5	392400	15,2	17,2	6	468000	16,5	14,8	7	543600	14,6	11,8
	318000	14,6	14,0		393600	15,2	17,6		469200	16,4	15,2		544800	14,9	11,8
	319200	14,7	13,7		394800	15,2	17,5		470400	16,4	15,3		546000	14,7	11,8
4	320400	14,7	13,6	5	396000	15,3	17,7	6	471600	16,3	15,1	7	547200	14,7	12,0
	321600	14,8	13,4		397200	15,3	17,6		472800	16,3	15,1		548400	14,7	12,3
	322800	14,8	13,4		398400	15,3	17,3		474000	16,3	15,2		549600	14,6	12,5
4	324000	14,9	13,2	5	399600	15,3	16,5	6	475200	16,2	15,1	7	550800	14,7	12,7
	325200	14,9	13,1		400800	15,4	16,2		476400	16,3	14,7		552000	14,8	13,0
	326400	15,0	12,9		402000	15,4	16,0		477600	16,3	14,8		553200	14,8	13,0
4	327600	15,0	12,9	5	403200	15,3	15,9	6	478800	16,3	15,0	7	554400	14,8	13,1
	328800	15,1	12,9		404400	15,3	16,3		480000	16,4	15,1		555600	14,8	13,4
	330000	15,2	12,7		405600	15,3	16,1		481200	16,5	15,2		556800	14,7	13,7
4	331200	15,3	12,5	5	406800	15,3	16,1	6	482400	16,5	15,1	7	558000	14,5	13,9
	332400	15,2	12,3		408000	15,4	16,0		483600	16,5	13,9		559200	14,6	14,0
	333600	15,3	12,0		409200	15,5	15,8		484800	16,5	13,6		560400	14,5	14,1
4	334800	15,3	11,7	5	410400	15,5	15,5	6	486000	16,4	13,0	7	561600	14,4	14,0
	336000	15,4	11,8		411600	15,7	15,2		487200	16,4	12,4		562800	14,4	14,3
	337200	15,4	11,3		412800	15,7	14,5		488400	16,4	12,4		564000	14,5	14,3
4	338400	15,5	11,2	5	414000	15,9	14,0	6	489600	16,5	12,6	7	565200	14,4	14,2
	339600	15,6	11,0		415200	15,9	14,0		490800	16,5	12,6		566400	14,5	14,2
	340800	15,6	11,0		416400	16,2	13,9		492000	16,5	12,7		567600	14,5	13,9
4	342000	15,6	10,9	5	417600	16,2	13,5	6	493200	16,5	12,7	7	568800	14,5	13,8
	343200	15,7	10,9		418800	16,3	13,1		494400	16,5	13,0		570000	14,4	13,8
	344400	15,7	10,8		420000	16,3	12,7		495600	16,4	13,1		571200	14,4	13,6
4	345600	15,6	10,6	5	421200	16,4	12,4	6	496800	16,4	13,4	7	572400	14,3	13,4
	346800	15,6	10,5		422400	16,4	12,1		498000	16,4	13,6		573600	14,3	13,2
	348000	15,7	10,5		423600	16,5	11,8		499200	16,5	13,8		574800	14,3	12,8
5	349200	15,8	10,4	5	424800	16,6	11,7	6	500400	16,5	13,9	7	576000	14,2	12,9
	350400	15,8	10,3		426000	16,7	11,5		501600	16,5	14,1		577200	14,2	13,0
	351600	15,8	10,2		427200	16,8	11,4		502800	16,4	14,2		578400	14,3	12,4
5	352800	15,9	10,1	5	428400	16,8	11,2	6	504000	16,4	14,3	7	579600	14,4	12,7
	354000	15,8	10,1		429600	16,9	11,0		505200	16,5	14,4		580800	14,4	12,0
	355200	15,8	10,1		430800	17	10,8		506400	16,5	14,5		582000	14,4	12,2
5	356400	15,8	10,1	5	432000	17	10,7	6	507600	16,5	14,6	7	583200	14,5	11,6
	357600	15,8	10,1		433200	17	10,7		508800	16,5	14,8		584400	14,4	11,2
	358800	15,8	10,1		434400	17,1	10,7		510000	16,4	14,8		585600	14,4	11,1
5	360000	15,8	10,1	6	435600	17,2	10,6	6	511200	16,4	15,2	7	586800	14,3	11,0
	361200	15,7	10,0		436800	17,1	10,8		512400	16,4	14,8		588000	14,3	11,0
	362400	15,7	10,0		438000	17,1	10,9		513600	16,3	13,8		589200	14,3	11,0
5	363600	15,8	10,0	6	439200	17,1	10,9	6	514800	16,2	13,0	7	590400	14,1	10,9
	364800	15,8	10,0		440400	17,2	11,0		516000	15,9	12,6		591600	14,1	10,7
	366000	15,7	10,0		441600	17,2	11,0		517200	15,8	12,1		592800	14,2	10,6
5	367200	15,7	10,0	6	442800	17,1	10,9	7	518400	15,7	11,9	7	594000	14,0	10,4
	368400	15,7	10,1		444000	17,1	10,8		519600	15,6	11,9		595200	14,0	10,1
	369600	15,7	10,4		445200	17,2	10,7		520800	15,5	11,7		596400	14,1	10,1
5	370800	15,6	10,5	6	446400	17,2	10,8	7	522000	15,4	11,9	7	597600	13,9	9,8
	372000	15,6	10,8		447600	17,2	10,9		523200	15,3	12,0		598800	13,9	9,2
	373200	15,6	11,3		448800	17,3	10,9		524400	15,3	11,9		600000	13,9	8,9
5	374400	15,6	11,5	6	450000	17,2	11,0	7	525600	15,3	11,8	7	601200	13,9	8,8
	375600	15,6	11,9		451200	17,2	11,2		526800	14,9	11,6		602400	13,9	8,9
	376800	15,5	12,1		452400	17,1	11,6		528000	14,8	11,4		603600	13,9	8,7

Set 3 - 21st of May to 20th of June

Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)
7	604800	14,2	8,52	8	680400	15,3	14,5	9	756000	16,5	17,5	10	831600	18,5	21,1
	606000	14,1	8,5		681600	15,2	13,5		757200	16,5	16,7		832800	18,4	21,0
	607200	13,9	8,3		682800	15,3	12,6		758400	16,5	16,6		834000	18,5	21,5
8	608400	14	7,9	8	684000	15,2	12,7	9	759600	16,6	16,7	10	835200	18,4	21,6
	609600	14,4	7,7		685200	15,3	11,0		760800	16,5	16,8		836400	18,5	21,8
	610800	14,9	7,8		686400	15,4	11,5		762000	16,7	16,3		837600	18,6	22,1
8	612000	14,2	8,1	8	687600	15,4	10,6	9	763200	16,8	15,9	10	838800	18,7	23,1
	613200	14,8	8,2		688800	15,3	11,4		764400	16,8	15,5		840000	18,9	23,9
	614400	15,1	8,1		690000	15,4	11,3		765600	16,9	15,4		841200	19,1	23,9
8	615600	15,2	8,2	8	691200	15,4	11,1	9	766800	17,1	14,3	10	842400	19,3	24,0
	616800	15	8,0		692400	15,4	10,5		768000	17,2	13,5		843600	19,5	23,8
	618000	15,1	8,0		693600	15,6	10,5		769200	17,3	12,9		844800	19,6	23,7
8	619200	14,8	8,2	9	694800	15,6	10,5	9	770400	17,4	12,6	10	846000	19,8	23,7
	620400	14,3	8,2		696000	15,6	10,0		771600	17,5	12,0		847200	19,8	23,6
	621600	14,4	8,5		697200	15,6	9,9		772800	17,6	11,8		848400	20	23,2
8	622800	14,2	8,6	9	698400	15,7	9,8	9	774000	17,6	11,6	10	849600	20	23,0
	624000	14,3	8,7		699600	15,6	9,7		775200	17,7	10,7		850800	20	22,6
	625200	14,3	9,0		700800	15,8	9,6		776400	17,7	10,6		852000	20,2	22,1
8	626400	14,2	9,1	9	702000	15,8	9,0	9	777600	17,7	10,0	10	853200	20,2	21,3
	627600	14,2	9,1		703200	15,8	8,5		778800	17,8	10,0		854400	20,2	19,7
	628800	14,1	9,4		704400	15,7	7,7		780000	17,9	9,9		855600	20,2	18,6
8	630000	14,2	9,6	9	705600	15,7	7,4	10	781200	17,8	9,4	10	856800	20,3	17,8
	631200	14	9,8		706800	15,7	7,6		782400	17,9	9,0		858000	20,5	17,1
	632400	14,1	9,9		708000	15,7	7,8		783600	17,9	8,9		859200	20,5	16,4
8	633600	14,1	10,2	9	709200	15,7	8,4	10	784800	18,0	8,8	10	860400	20,6	15,3
	634800	14,1	10,9		710400	15,7	9,0		786000	18,0	8,6		861600	20,6	14,9
	636000	14,2	11,4		711600	15,6	9,8		787200	18,1	8,5		862800	20,5	14,9
8	637200	14,2	12,0	9	712800	15,7	10,5	10	788400	18,1	8,3	10	864000	20,6	14,4
	638400	14,3	12,4		714000	15,7	11,0		789600	18,1	8,2		865200	20,6	13,8
	639600	14,5	12,5		715200	15,7	11,8		790800	18,1	8,1		866400	20,7	13,2
8	640800	14,6	12,4	9	716400	15,8	12,3	10	792000	18,1	8,1	11	867600	20,9	12,7
	642000	14,7	12,1		717600	15,7	12,8		793200	18,1	8,4		868800	20,8	12,4
	643200	14,6	11,1		718800	15,7	13,3		794400	18,1	8,7		870000	20,9	12,4
8	644400	14,5	9,7	9	720000	15,7	13,7	10	795600	18,0	9,3	11	871200	20,9	12,0
	645600	14,4	9,6		721200	15,6	14,5		796800	18,1	9,9		872400	20,9	11,9
	646800	14,3	11,0		722400	15,6	15,0		798000	18,1	10,5		873600	21	11,6
8	648000	14,2	12,9	9	723600	15,5	15,4	10	799200	18,1	11,1	11	874800	21	11,5
	649200	14,2	13,9		724800	15,5	16,2		800400	18,1	11,7		876000	21	11,3
	650400	14,3	14,3		726000	15,5	16,2		801600	18,1	12,4		877200	21	11,1
8	651600	14,4	14,8	9	727200	15,4	16,2	10	802800	18,1	13,2	11	878400	21,1	11,2
	652800	14,4	15,3		728400	15,5	16,8		804000	18,1	14,0		879600	21,2	11,4
	654000	14,3	15,2		729600	15,4	16,5		805200	18,0	14,8		880800	21,2	11,8
8	655200	14,4	15,8	9	730800	15,5	17,6	10	806400	18,0	14,5	11	882000	21,2	12,2
	656400	14,4	16,2		732000	15,6	17,9		807600	18,0	14,9		883200	21,2	12,8
	657600	14,5	15,8		733200	15,6	18,0		808800	18,0	15,2		884400	21,2	13,4
8	658800	14,5	16,6	9	734400	15,5	18,0	10	810000	18,0	16,1	11	885600	21,1	13,9
	660000	14,6	16,3		735600	15,5	18,2		811200	18,0	17,1		886800	21,2	14,5
	661200	14,6	16,7		736800	15,6	18,4		812400	17,9	17,9		888000	21,2	15,5
8	662400	14,7	16,7	9	738000	15,6	18,3	10	813600	17,9	18,9	11	889200	21,2	17,2
	663600	14,8	17,1		739200	15,7	18,6		814800	17,9	20,0		890400	21,2	17,5
	664800	14,9	17,2		740400	15,8	19,1		816000	17,9	20,2		891600	21,2	17,7
8	666000	15	17,2	9	741600	15,9	18,7	10	817200	17,9	20,8	11	892800	21,1	17,8
	667200	15,1	17,1		742800	15,9	18,8		818400	17,9	20,4		894000	21,1	17,9
	668400	15,1	17,1		744000	15,9	19,4		819600	18,0	21,5		895200	21,1	18,3
8	669600	15,2	17,1	9	745200	15,9	19,1	10	820800	18,0	21,2	11	896400	21,1	18,5
	670800	15,3	17,1		746400	16,1	19,4		822000	18,1	21,6		897600	21,1	18,6
	672000	15,3	17,1		747600	16,3	19,4		823200	18,1	21,4		898800	21,1	19,1
8	673200	15,3	17,0	9	748800	16,1	19,4	10	824400	18,3	22,2	11	900000	21	19,5
	674400	15,3	16,9		750000	16,1	19,7		825600	18,3	22,8		901200	20,9	20,1
	675600	15,3	16,6		751200	16,3	19,5		826800	18,2	22,5		902400	20,9	20,2
8	676800	15,3	16,3	9	752400	16,2	18,8	10	828000	18,3	22,1	11	903600	20,9	20,4
	678000	15,4	15,7		753600	16,3	18,2		829200	18,4	22,1		904800	20,9	20,5
	679200	15,4	15,2		754800	16,4	18,0		830400	18,6	21,6		906000	20,8	20,6

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Set 3 - 21st of May to 20th of June

Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)
11	907200	20,8	20,9	12	982800	22,8	17,9	13	1058400	24,5	14,3	14	1134000	22,4	10,0
	908400	20,7	20,7		984000	22,8	18,7		1059600	24,5	14,9		1135200	22,4	9,6
	909600	20,8	21,1		985200	22,7	19,6		1060800	24,5	15,4		1136400	22,3	9,2
11	910800	20,8	21,5	12	986400	22,6	20,6	13	1062000	24,6	15,7	14	1137600	22,3	8,9
	912000	20,8	22,5		987600	22,6	21,9		1063200	24,6	15,8		1138800	22,2	8,9
	913200	20,9	22,1		988800	22,6	22,5		1064400	24,7	16,0		1140000	22,1	8,8
11	914400	21,1	22,0	12	990000	22,6	22,3	13	1065600	24,5	15,7	14	1141200	22,1	8,7
	915600	21,1	21,0		991200	22,6	22,7		1066800	24,4	15,2		1142400	22,0	8,8
	916800	21,1	20,9		992400	22,5	23,5		1068000	24,1	14,7		1143600	22,0	8,9
11	918000	21,0	21,1	12	993600	22,4	23,8	13	1069200	23,8	14,1	14	1144800	21,9	8,9
	919200	20,8	21,9		994800	22,5	23,3		1070400	23,5	13,3		1146000	21,8	9,0
	920400	20,9	22,3		996000	22,5	23,7		1071600	23,0	12,6		1147200	21,6	9,1
11	921600	21,0	22,0	12	997200	22,4	23,9	13	1072800	22,8	12,1	14	1148400	21,4	9,2
	922800	21,1	22,1		998400	22,4	24,4		1074000	22,6	11,7		1149600	21,3	9,3
	924000	21,2	21,9		999600	22,4	25,2		1075200	22,4	11,5		1150800	20,8	9,3
11	925200	21,2	21,8	12	1000800	22,3	25,0	13	1076400	22,3	11,5	14	1152000	20,8	9,4
	926400	21,4	21,9		1002000	22,4	25,1		1077600	22,1	11,6		1153200	20,9	9,8
	927600	21,4	22,1		1003200	22,5	25,2		1078800	22,5	12,0		1154400	20,6	9,9
11	928800	21,5	22,0	12	1004400	22,6	25,3	13	1080000	22,6	12,6	14	1155600	20,4	9,9
	930000	21,6	21,8		1005600	22,7	25,3		1081200	22,2	12,8		1156800	20,5	10,1
	931200	21,7	21,4		1006800	22,7	25,3		1082400	22,4	13,1		1158000	20,7	10,5
11	932400	21,8	21,0	12	1008000	22,8	25,4	13	1083600	22,6	13,5	14	1159200	20,7	10,7
	933600	21,7	20,9		1009200	22,9	25,1		1084800	22,5	13,6		1160400	20,6	10,8
	934800	21,8	20,4		1010400	23,0	25,0		1086000	22,4	14,0		1161600	20,6	11,0
11	936000	21,9	19,9	12	1011600	23,1	25,2	13	1087200	22,6	14,2	14	1162800	20,5	11,0
	937200	22,0	18,8		1012800	23,1	24,9		1088400	22,8	14,1		1164000	20,2	11,4
	938400	22,1	18,4		1014000	23,2	23,9		1089600	22,9	14,3		1165200	20,3	11,7
11	939600	22,1	18,2	12	1015200	23,3	23,9	13	1090800	22,8	14,7	14	1166400	20,2	11,9
	940800	22,3	17,0		1016400	23,4	24,0		1092000	22,7	14,7		1167600	20,3	12,1
	942000	22,3	16,4		1017600	23,4	24,1		1093200	22,6	15,1		1168800	20,2	12,6
11	943200	22,5	16,1	12	1018800	23,4	23,6	13	1094400	22,8	14,9	14	1170000	20,3	12,8
	944400	22,4	15,2		1020000	23,5	22,8		1095600	22,7	14,9		1171200	20,1	13,2
	945600	22,6	14,7		1021200	23,6	22,0		1096800	22,8	15,3		1172400	19,9	12,7
11	946800	22,6	13,8	12	1022400	23,7	20,7	13	1098000	22,8	15,6	14	1173600	19,8	12,9
	948000	22,7	13,3		1023600	23,7	20,1		1099200	22,8	15,4		1174800	20,1	13,0
	949200	22,7	13,1		1024800	23,7	19,2		1100400	22,9	15,3		1176000	19,9	13,8
11	950400	22,8	12,7	12	1026000	23,7	18,6	13	1101600	22,8	15,2	14	1177200	19,9	14,3
	951600	22,9	12,0		1027200	23,7	18,2		1102800	22,9	15,2		1178400	20,0	14,0
	952800	22,9	11,6		1028400	23,9	17,9		1104000	22,8	15,3		1179600	20,0	13,9
12	954000	23,0	11,7	12	1029600	24,0	17,4	13	1105200	22,8	15,3	14	1180800	20,1	13,9
	955200	23,0	11,1		1030800	24,0	17,1		1106400	22,7	15,1		1182000	19,9	13,7
	956400	23,0	11,1		1032000	24,0	16,3		1107600	22,7	14,8		1183200	20,1	14,3
12	957600	23,1	10,8	12	1033200	24,2	16,2	13	1108800	22,7	14,6	14	1184400	20,0	13,7
	958800	23,1	10,5		1034400	24,3	15,8		1110000	22,7	14,1		1185600	20,0	14,0
	960000	23,1	10,4		1035600	24,3	15,5		1111200	22,7	12,6		1186800	20,0	13,5
12	961200	23,1	10,4	12	1036800	24,4	15,3	13	1112400	22,7	12,3	14	1188000	19,9	13,6
	962400	23,1	10,1		1038000	24,4	14,7		1113600	22,7	11,9		1189200	19,9	13,8
	963600	23,2	10,1		1039200	24,5	14,3		1114800	22,6	11,4		1190400	19,9	13,2
12	964800	23,1	10,2	13	1040400	24,6	14,3	13	1116000	22,7	11,1	14	1191600	19,9	12,2
	966000	23,1	10,2		1041600	24,6	14,0		1117200	22,6	10,9		1192800	20,0	12,3
	967200	23,0	10,5		1042800	24,6	13,2		1118400	22,6	11,5		1194000	19,6	12,3
12	968400	23,0	11,0	13	1044000	24,6	13,3	13	1119600	22,6	11,9	14	1195200	19,8	12,3
	969600	23,0	11,7		1045200	24,6	13,3		1120800	22,7	12,2		1196400	19,8	11,8
	970800	23,1	12,5		1046400	24,7	12,7		1122000	22,8	12,1		1197600	19,8	11,6
12	972000	23,0	13,0	13	1047600	24,7	12,6	13	1123200	22,8	12,0	14	1198800	19,8	11,3
	973200	23,0	13,8		1048800	24,7	12,4		1124400	22,7	11,7		1200000	19,9	11,0
	974400	23,1	14,9		1050000	24,6	11,9		1125600	22,7	11,6		1201200	19,9	10,5
12	975600	23,0	15,0	13	1051200	24,7	12,3	14	1126800	22,7	11,5	14	1202400	19,9	10,1
	976800	23,0	15,3		1052400	24,7	12,2		1128000	22,6	11,4		1203600	19,8	10,3
	978000	22,9	15,8		1053600	24,7	12,2		1129200	22,6	11,2		1204800	19,8	10,5
12	979200	22,8	16,3	13	1054800	24,6	12,5	14	1130400	22,6	10,9	14	1206000	19,9	10,2
	980400	22,9	17,1		1056000	24,6	13,1		1131600	22,5	10,6		1207200	20,0	9,9
	981600	22,8	17,4		1057200	24,6	13,2		1132800	22,5	10,2		1208400	19,9	9,8

Set 3 - 21st of May to 20th of June

Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)
14	1209600	19,9	9,5	15	1285200	17,6	7,4	16	1360800	14,8	11,5	17	1436400	14,3	13,6
	1210800	19,9	9,1		1286400	17,6	7,3		1362000	14,9	11,5		1437600	14,3	13,5
	1212000	19,8	8,7		1287600	17,6	7,2		1363200	14,9	11,8		1438800	14,2	13,4
15	1213200	19,8	8,2	15	1288800	17,6	7,0	16	1364400	14,9	11,7	17	1440000	14,0	13,4
	1214400	19,8	7,7		1290000	17,6	6,8		1365600	15,0	11,6		1441200	14,1	13,3
	1215600	19,8	7,3		1291200	17,6	6,7		1366800	15,1	12,1		1442400	14,1	13,4
15	1216800	19,7	7,3	15	1292400	17,7	6,6	16	1368000	15,0	12,1	17	1443600	14,1	13,4
	1218000	19,7	7,2		1293600	17,5	6,4		1369200	15,0	11,6		1444800	14,1	13,8
	1219200	19,6	6,9		1294800	17,6	6,3		1370400	15,0	11,5		1446000	14,1	13,2
15	1220400	19,7	6,8	15	1296000	17,6	6,3	16	1371600	14,9	11,1	17	1447200	14,2	13,1
	1221600	19,7	6,7		1297200	17,5	6,3		1372800	15,1	10,9		1448400	14,4	13,1
	1222800	19,6	6,6		1298400	17,5	6,4		1374000	15,2	10,3		1449600	14,3	13,0
15	1224000	19,7	6,8	16	1299600	17,5	6,5	16	1375200	15,1	9,7	17	1450800	14,5	12,6
	1225200	19,7	6,9		1300800	17,5	6,5		1376400	15,0	9,2		1452000	14,5	12,2
	1226400	19,6	6,9		1302000	17,4	6,5		1377600	15,1	9,1		1453200	14,7	11,9
15	1227600	19,5	7,2	16	1303200	17,5	6,4	16	1378800	15,2	9,1	17	1454400	14,7	11,5
	1228800	19,5	7,5		1304400	17,5	6,2		1380000	15,2	9,0		1455600	14,7	11,3
	1230000	19,4	7,8		1305600	17,2	6,1		1381200	15,2	8,5		1456800	14,9	11,1
15	1231200	19,4	7,9	16	1306800	17,1	6,1	16	1382400	15,1	8,6	17	1458000	15,0	10,7
	1232400	19,3	8,1		1308000	17,0	6,1		1383600	15,1	7,7		1459200	15,0	10,1
	1233600	19,3	8,4		1309200	16,9	6,1		1384800	15,2	7,6		1460400	15,1	9,8
15	1234800	19,1	8,7	16	1310400	16,9	6,1	17	1386000	15,2	7,6	17	1461600	15,2	9,4
	1236000	19,0	8,8		1311600	16,8	6,1		1387200	15,2	7,3		1462800	15,3	9,3
	1237200	19,0	9,0		1312800	16,9	6,1		1388400	15,2	6,7		1464000	15,3	9,1
15	1238400	18,9	9,1	16	1314000	16,9	6,1	17	1389600	15,2	6,2	17	1465200	15,4	9,1
	1239600	18,7	9,3		1315200	16,8	6,2		1390800	15,2	6,0		1466400	15,4	8,4
	1240800	18,6	9,7		1316400	16,8	6,2		1392000	15,3	6,0		1467600	15,5	7,9
15	1242000	18,4	9,7	16	1317600	16,8	6,3	17	1393200	15,2	5,7	17	1468800	15,5	8,0
	1243200	18,4	9,5		1318800	16,6	6,4		1394400	15,2	5,6		1470000	15,5	7,9
	1244400	18,4	9,9		1320000	16,6	6,7		1395600	15,2	5,7		1471200	15,6	7,6
15	1245600	18,2	10,4	16	1321200	16,5	7,4	17	1396800	15,3	5,8	18	1472400	15,6	7,6
	1246800	18,0	10,4		1322400	16,4	7,9		1398000	15,3	5,9		1473600	15,6	7,6
	1248000	18,1	10,6		1323600	16,3	7,9		1399200	15,4	6,3		1474800	15,6	7,0
15	1249200	18,1	10,7	16	1324800	16,2	8,2	17	1400400	15,2	6,9	18	1476000	15,6	6,9
	1250400	17,9	10,5		1326000	16,2	8,7		1401600	15,1	7,4		1477200	15,6	6,9
	1251600	17,8	10,4		1327200	16,1	8,9		1402800	15,3	7,4		1478400	15,7	7,0
15	1252800	17,7	10,4	16	1328400	16,1	9,4	17	1404000	15,4	7,5	18	1479600	15,7	6,8
	1254000	17,8	10,7		1329600	16,1	10,0		1405200	15,2	7,8		1480800	15,7	6,8
	1255200	17,7	10,2		1330800	16,0	10,4		1406400	15,2	8,4		1482000	15,7	6,6
15	1256400	17,8	9,6	16	1332000	16,0	10,7	17	1407600	15,2	8,8	18	1483200	15,6	6,8
	1257600	17,7	9,6		1333200	16,0	11,0		1408800	15,1	9,0		1484400	15,6	6,8
	1258800	17,7	10,7		1334400	15,8	11,3		1410000	14,9	9,4		1485600	15,6	5,9
15	1260000	17,6	10,7	16	1335600	15,9	11,3	17	1411200	14,8	9,9	18	1486800	15,6	6,0
	1261200	17,6	10,9		1336800	15,8	10,6		1412400	14,9	10,3		1488000	15,6	7,2
	1262400	17,8	11,2		1338000	15,6	11,0		1413600	14,8	10,6		1489200	15,6	7,8
15	1263600	17,8	10,9	16	1339200	15,7	10,3	17	1414800	14,8	11,3	18	1490400	15,6	8,2
	1264800	17,9	11,0		1340400	15,5	10,9		1416000	14,7	11,6		1491600	15,5	8,7
	1266000	17,8	11,1		1341600	15,4	11,8		1417200	14,7	11,5		1492800	15,5	9,6
15	1267200	17,7	10,6	16	1342800	15,4	11,9	17	1418400	14,6	11,6	18	1494000	15,5	10,2
	1268400	17,8	8,8		1344000	15,4	12,2		1419600	14,6	11,9		1495200	15,5	10,7
	1269600	17,8	9,9		1345200	15,4	12,5		1420800	14,5	11,6		1496400	15,4	12,0
15	1270800	17,7	8,9	16	1346400	15,4	12,8	17	1422000	14,4	11,9	18	1497600	15,4	12,6
	1272000	17,7	9,4		1347600	15,4	13,2		1423200	14,4	12,0		1498800	15,3	13,0
	1273200	17,6	9,6		1348800	15,3	13,1		1424400	14,4	12,4		1500000	15,2	12,5
15	1274400	17,6	9,4	16	1350000	15,3	13,7	17	1425600	14,3	13,4	18	1501200	15,3	12,7
	1275600	17,5	8,9		1351200	15,2	14,0		1426800	14,3	14,2		1502400	15,2	13,3
	1276800	17,5	8,2		1352400	15,1	13,0		1428000	14,3	14,9		1503600	15,3	14,1
15	1278000	17,5	7,8	16	1353600	15,1	11,8	17	1429200	14,2	14,8	18	1504800	15,1	13,4
	1279200	17,3	7,7		1354800	15,1	12,2		1430400	14,2	15,1		1506000	15,2	14,5
	1280400	17,6	7,6		1356000	15,0	12,5		1431600	14,2	14,1		1507200	15,0	13,6
15	1281600	17,5	7,5	16	1357200	14,9	12,1	17	1432800	14,3	14,5	18	1508400	14,9	13,0
	1282800	17,5	7,4		1358400	14,7	11,8		1434000	14,3	14,2		1509600	15,1	13,0
	1284000	17,6	7,4		1359600	14,8	11,6		1435200	14,3	13,9		1510800	15,0	13,0

Set 3 - 21st of May to 20th of June

Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)
18	1512000	14,8	12,8	19	1587600	14,8	11,0	20	1663200	15,9	9,1	21	1738800	16,7	11,3
	1513200	15,0	13,3		1588800	14,7	11,1		1664400	15,8	9,7		1740000	16,7	11,2
	1514400	15,0	13,6		1590000	14,4	11,7		1665600	15,8	10,5		1741200	16,7	11,1
18	1515600	15,0	14,3	19	1591200	14,5	12,1	20	1666800	15,7	11,8	21	1742400	16,7	11,0
	1516800	15,0	13,9		1592400	14,6	12,4		1668000	15,7	12,2		1743600	16,7	11,0
	1518000	14,9	11,4		1593600	14,5	12,6		1669200	15,7	12,9		1744800	16,8	11,0
18	1519200	14,9	10,1	19	1594800	14,4	12,8	20	1670400	15,6	13,1	21	1746000	16,7	10,9
	1520400	14,9	10,3		1596000	14,3	13,0		1671600	15,6	13,4		1747200	16,7	11,0
	1521600	14,8	10,4		1597200	14,2	13,2		1672800	15,5	13,7		1748400	16,9	11,0
18	1522800	14,8	10,3	19	1598400	14,3	13,4	20	1674000	15,5	14,3	21	1749600	16,8	11,1
	1524000	14,8	10,1		1599600	14,2	13,7		1675200	15,4	14,1		1750800	16,8	11,2
	1525200	15,0	10,8		1600800	14,3	13,6		1676400	15,4	14,2		1752000	16,7	11,4
18	1526400	15,2	10,7	19	1602000	14,4	13,6	20	1677600	15,4	14,6	21	1753200	16,8	11,3
	1527600	15,1	10,7		1603200	14,3	13,4		1678800	15,4	14,5		1754400	16,8	10,9
	1528800	15,2	11,2		1604400	14,3	14,0		1680000	15,3	15,3		1755600	16,6	11,0
18	1530000	15,1	13,2	19	1605600	14,3	14,3	20	1681200	15,3	14,6	21	1756800	16,3	11,0
	1531200	15,1	13,0		1606800	14,4	13,9		1682400	15,3	14,3		1758000	16,3	10,8
	1532400	15,0	12,5		1608000	14,4	14,4		1683600	15,1	13,7		1759200	16,3	10,7
18	1533600	15,0	11,4	19	1609200	14,4	14,6	20	1684800	15,1	13,8	21	1760400	16,2	10,3
	1534800	15,1	11,3		1610400	14,2	15,0		1686000	15,1	14,3		1761600	16,5	10,4
	1536000	15,1	10,3		1611600	14,3	15,1		1687200	15,1	14,4		1762800	16,4	10,6
18	1537200	15,0	10,6	19	1612800	14,2	14,7	20	1688400	15,2	14,0	21	1764000	16,4	11,0
	1538400	15,1	10,3		1614000	14,4	14,2		1689600	15,2	14,1		1765200	16,4	11,2
	1539600	15,1	9,6		1615200	14,4	14,0		1690800	15,3	14,5		1766400	16,3	11,1
18	1540800	14,9	10,2	19	1616400	14,4	14,8	20	1692000	15,3	14,9	21	1767600	16,1	10,9
	1542000	15,1	10,2		1617600	14,5	13,5		1693200	15,3	17,0		1768800	16,3	11,0
	1543200	15,2	9,6		1618800	14,6	14,5		1694400	15,3	16,9		1770000	16,2	11,1
18	1544400	15,5	9,4	19	1620000	14,6	13,7	20	1695600	15,4	16,6	21	1771200	16,2	11,3
	1545600	15,4	9,0		1621200	14,5	13,0		1696800	15,4	17,3		1772400	16,2	11,3
	1546800	15,2	9,2		1622400	14,7	13,1		1698000	15,4	16,1		1773600	16,2	11,3
18	1548000	15,2	9,3	19	1623600	14,8	13,2	20	1699200	15,5	16,3	21	1774800	16,1	11,5
	1549200	15,3	9,0		1624800	14,8	13,1		1700400	15,5	15,8		1776000	16,0	11,5
	1550400	15,2	8,9		1626000	15,0	12,7		1701600	15,5	16,1		1777200	16,0	11,6
18	1551600	15,2	9,2	19	1627200	15,1	12,3	20	1702800	15,6	16,2	21	1778400	16,0	11,7
	1552800	15,3	8,5		1628400	15,1	12,2		1704000	15,6	16,3		1779600	15,9	12,0
	1554000	15,4	8,4		1629600	15,2	11,9		1705200	15,6	16,3		1780800	15,9	11,9
18	1555200	15,4	8,3	19	1630800	15,2	11,2	20	1706400	15,8	15,9	21	1782000	15,9	11,9
	1556400	15,2	8,1		1632000	15,3	11,0		1707600	15,8	15,8		1783200	15,9	11,9
	1557600	15,3	8,1		1633200	15,4	10,6		1708800	15,8	15,4		1784400	15,9	12,0
19	1558800	15,3	7,9	19	1634400	15,4	9,8	20	1710000	15,9	15,2	21	1785600	15,8	12,0
	1560000	15,4	7,9		1635600	15,6	9,4		1711200	15,9	15,0		1786800	15,8	11,9
	1561200	15,3	7,4		1636800	15,6	8,6		1712400	15,9	14,7		1788000	15,8	11,8
19	1562400	15,3	7,4	19	1638000	15,6	8,0	20	1713600	16,0	14,5	21	1789200	15,7	11,9
	1563600	15,3	7,5		1639200	15,7	7,9		1714800	16,0	14,2		1790400	15,7	12,0
	1564800	15,3	7,5		1640400	15,7	7,6		1716000	16,1	14,0		1791600	15,7	12,0
19	1566000	15,3	7,9	19	1641600	15,7	7,6	20	1717200	16,1	13,8	21	1792800	15,7	12,0
	1567200	15,3	8,8		1642800	15,8	7,0		1718400	16,2	13,6		1794000	15,7	12,0
	1568400	15,1	8,8		1644000	15,8	6,5		1719600	16,2	13,5		1795200	15,6	12,0
19	1569600	15,1	8,9	20	1645200	15,8	6,5	20	1720800	16,3	13,3	21	1796400	15,7	12,1
	1570800	15,1	8,9		1646400	15,8	6,4		1722000	16,4	13,2		1797600	15,7	12,1
	1572000	15,0	9,0		1647600	15,9	6,1		1723200	16,4	13,1		1798800	15,6	12,0
19	1573200	15,0	8,8	20	1648800	15,9	5,8	20	1724400	16,5	12,9	21	1800000	15,6	12,0
	1574400	15,0	8,8		1650000	15,9	5,9		1725600	16,5	12,7		1801200	15,7	11,9
	1575600	15,0	8,9		1651200	15,9	5,8		1726800	16,5	12,6		1802400	15,8	11,8
19	1576800	14,9	8,9	20	1652400	16,0	5,5	20	1728000	16,6	12,4	21	1803600	15,8	11,6
	1578000	14,9	8,9		1653600	16,0	5,5		1729200	16,7	12,3		1804800	15,9	11,6
	1579200	14,9	9,0		1654800	16,0	5,7		1730400	16,8	12,3		1806000	15,8	11,5
19	1580400	14,9	8,9	20	1656000	16,0	5,9	21	1731600	16,6	12,2	21	1807200	15,8	11,5
	1581600	14,7	9,6		1657200	16,0	6,2		1732800	16,6	12,0		1808400	15,8	11,4
	1582800	14,6	10,5		1658400	15,9	6,6		1734000	16,7	11,9		1809600	15,8	11,4
19	1584000	14,5	10,6	20	1659600	15,9	7,1	21	1735200	16,7	11,7	21	1810800	15,8	11,3
	1585200	14,5	11,4		1660800	15,9	7,7		1736400	16,7	11,6		1812000	15,8	11,3
	1586400	14,7	11,0		1662000	15,9	8,5		1737600	16,8	11,4		1813200	15,8	11,2

Set 3 - 21st of May to 20th of June

Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)
21	1814400	15,8	11,0	22	1890000	14,9	12,8	23	1965600	14,8	13,1	24	2041200	14,7	17,0
	1815600	15,7	10,8		1891200	15,0	12,5		1966800	14,7	13,1		2042400	14,8	16,9
	1816800	15,6	10,5		1892400	15,0	12,1		1968000	14,8	13,3		2043600	14,8	16,9
22	1818000	15,4	10,3	22	1893600	15,1	12,0	23	1969200	14,8	13,3	24	2044800	14,8	17,2
	1819200	15,5	10,2		1894800	15,2	11,8		1970400	14,7	13,2		2046000	14,8	17,5
	1820400	15,6	10,1		1896000	15,2	11,6		1971600	14,7	13,0		2047200	14,8	17,4
22	1821600	15,6	10,1	22	1897200	15,2	11,7	23	1972800	14,8	12,9	24	2048400	14,9	17,2
	1822800	15,6	10,0		1898400	15,2	11,7		1974000	14,8	13,0		2049600	15,0	16,9
	1824000	15,6	9,9		1899600	15,2	11,6		1975200	14,7	12,9		2050800	15,1	17,3
22	1825200	15,4	9,8	22	1900800	15,2	11,6	23	1976400	14,7	12,8	24	2052000	15,0	17,2
	1826400	15,4	9,8		1902000	15,3	11,5		1977600	14,7	12,7		2053200	15,0	17,2
	1827600	15,4	9,8		1903200	15,3	11,5		1978800	14,7	12,5		2054400	15,1	17,0
22	1828800	15,3	9,8	23	1904400	15,3	11,6	23	1980000	14,7	12,5	24	2055600	15,1	16,9
	1830000	15,3	9,9		1905600	15,3	11,6		1981200	14,6	12,5		2056800	15,2	16,9
	1831200	15,5	9,9		1906800	15,4	11,5		1982400	14,6	12,3		2058000	15,2	16,6
22	1832400	15,3	9,9	23	1908000	15,4	11,4	23	1983600	14,6	12,2	24	2059200	15,2	16,2
	1833600	15,2	9,9		1909200	15,4	11,4		1984800	14,6	12,0		2060400	15,3	15,2
	1834800	15,2	10,0		1910400	15,5	11,3		1986000	14,6	11,8		2061600	15,3	14,6
22	1836000	15,2	10,1	23	1911600	15,6	11,2	23	1987200	14,5	11,8	24	2062800	15,3	14,4
	1837200	15,1	10,4		1912800	15,5	11,2		1988400	14,6	11,7		2064000	15,3	13,2
	1838400	15,1	10,5		1914000	15,4	11,3		1989600	14,6	11,8		2065200	15,4	12,7
22	1839600	15,0	10,6	23	1915200	15,4	11,3	24	1990800	14,6	11,8	24	2066400	15,4	12,2
	1840800	15,1	10,6		1916400	15,4	11,4		1992000	14,6	11,9		2067600	15,4	11,9
	1842000	15,0	10,7		1917600	15,4	11,4		1993200	14,6	11,9		2068800	15,5	11,3
22	1843200	15,0	10,8	23	1918800	15,5	11,5	24	1994400	14,5	12,0	24	2070000	15,6	10,7
	1844400	14,9	11,1		1920000	15,6	11,5		1995600	14,5	11,9		2071200	15,6	10,9
	1845600	14,9	11,3		1921200	15,6	11,6		1996800	14,5	11,8		2072400	15,6	10,1
22	1846800	14,9	11,7	23	1922400	15,5	11,7	24	1998000	14,5	11,8	24	2073600	15,7	9,9
	1848000	14,9	11,9		1923600	15,5	11,7		1999200	14,5	11,7		2074800	15,7	10,3
	1849200	14,8	11,9		1924800	15,5	11,8		2000400	14,5	11,7		2076000	15,8	10,1
22	1850400	14,8	12,1	23	1926000	15,5	11,8	24	2001600	14,5	11,7	25	2077200	15,8	11,3
	1851600	14,8	12,5		1927200	15,4	11,9		2002800	14,5	11,6		2078400	15,8	11,2
	1852800	14,8	12,2		1928400	15,5	12,1		2004000	14,5	11,7		2079600	16,0	10,5
22	1854000	14,8	12,6	23	1929600	15,4	12,2	24	2005200	14,4	11,8	25	2080800	16,1	10,5
	1855200	14,7	13,4		1930800	15,4	12,4		2006400	14,4	11,9		2082000	16,1	10,7
	1856400	14,5	14,7		1932000	15,4	12,7		2007600	14,3	12,0		2083200	16,0	11,2
22	1857600	14,6	13,3	23	1933200	15,4	13,1	24	2008800	14,3	12,2	25	2084400	16,1	10,6
	1858800	14,5	13,7		1934400	15,3	13,3		2010000	14,4	12,5		2085600	16,1	10,8
	1860000	14,4	14,1		1935600	15,3	13,4		2011200	14,3	12,7		2086800	16,2	10,9
22	1861200	14,4	14,4	23	1936800	15,3	13,5	24	2012400	14,3	12,8	25	2088000	16,2	10,7
	1862400	14,5	14,7		1938000	15,2	13,6		2013600	14,3	13,0		2089200	16,2	10,6
	1863600	14,4	15,6		1939200	15,2	13,3		2014800	14,3	13,1		2090400	16,2	10,6
22	1864800	14,5	15,4	23	1940400	15,2	13,3	24	2016000	14,3	13,3	25	2091600	16,2	10,5
	1866000	14,5	15,1		1941600	15,1	13,3		2017200	14,3	13,7		2092800	16,1	10,7
	1867200	14,5	15,5		1942800	15,1	13,3		2018400	14,3	14,0		2094000	16,1	11,2
22	1868400	14,4	15,7	23	1944000	15,1	13,2	24	2019600	14,3	14,2	25	2095200	16,1	11,4
	1869600	14,5	14,7		1945200	15,1	13,3		2020800	14,3	14,6		2096400	16,0	11,6
	1870800	14,5	14,3		1946400	15,0	13,0		2022000	14,2	14,6		2097600	16,0	11,7
22	1872000	14,5	14,5	23	1947600	15,0	12,8	24	2023200	14,3	14,7	25	2098800	16,0	12,2
	1873200	14,4	14,5		1948800	15,0	12,9		2024400	14,3	15,1		2100000	16,0	12,6
	1874400	14,4	14,4		1950000	14,8	12,8		2025600	14,2	15,4		2101200	16,1	13,1
22	1875600	14,4	14,3	23	1951200	14,8	12,8	24	2026800	14,2	15,4	25	2102400	16,1	13,3
	1876800	14,4	14,1		1952400	14,8	12,9		2028000	14,3	15,6		2103600	16,1	13,4
	1878000	14,5	14,0		1953600	14,8	13,0		2029200	14,4	15,8		2104800	16,1	13,6
22	1879200	14,5	14,0	23	1954800	14,9	12,9	24	2030400	14,4	16,0	25	2106000	16,1	13,8
	1880400	14,5	14,1		1956000	14,8	12,9		2031600	14,4	16,2		2107200	16,1	14,2
	1881600	14,5	13,9		1957200	14,8	12,8		2032800	14,6	16,5		2108400	16,1	14,7
22	1882800	14,5	13,8	23	1958400	14,8	12,7	24	2034000	14,6	16,7	25	2109600	16,0	15,1
	1884000	14,6	13,7		1959600	14,8	12,7		2035200	14,7	16,7		2110800	16,0	15,3
	1885200	14,8	13,5		1960800	14,8	12,8		2036400	14,6	16,7		2112000	15,9	15,7
22	1886400	14,8	13,4	23	1962000	14,8	12,9	24	2037600	14,6	16,8	25	2113200	15,9	15,8
	1887600	14,8	13,3		1963200	14,8	13,0		2038800	14,7	17,2		2114400	15,9	16,1
	1888800	14,9	13,0		1964400	14,8	13,1		2040000	14,7	17,1		2115600	15,9	16,4

Set 3 - 21st of May to 20th of June

Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)
25	2116800	15,9	17,3	26	2192400	18,0	12,8	27	2268000	18,2	9,6	28	2343600	18,6	6,9
	2118000	15,9	18,1		2193600	18,0	13,0		2269200	18,2	9,9		2344800	18,6	6,9
	2119200	15,9	18,2		2194800	17,9	13,4		2270400	18,2	10,6		2346000	18,6	6,8
25	2120400	16,0	18,5	26	2196000	17,9	14,0	27	2271600	18,2	11,0	28	2347200	18,7	6,8
	2121600	16,0	19,0		2197200	17,8	14,8		2272800	18,2	11,0		2348400	18,7	7,2
	2122800	16,0	18,8		2198400	17,7	15,1		2274000	18,1	11,2		2349600	18,7	7,5
25	2124000	16,2	19,2	26	2199600	17,7	15,0	27	2275200	17,9	11,3	28	2350800	18,7	8,1
	2125200	16,3	19,1		2200800	17,5	15,6		2276400	17,7	11,1		2352000	18,7	8,9
	2126400	16,4	19,5		2202000	17,3	15,6		2277600	17,5	11,4		2353200	18,7	9,4
25	2127600	16,4	19,4	26	2203200	17,3	15,5	27	2278800	17,5	11,6	28	2354400	18,6	9,8
	2128800	16,4	18,8		2204400	17,4	16,0		2280000	17,3	11,6		2355600	18,6	10,6
	2130000	16,5	17,4		2205600	17,1	15,6		2281200	17,5	11,9		2356800	18,5	11,5
25	2131200	16,6	16,8	26	2206800	17,0	15,6	27	2282400	17,5	12,3	28	2358000	18,5	12,6
	2132400	16,7	16,7		2208000	17,2	15,9		2283600	17,6	12,6		2359200	18,5	12,9
	2133600	16,6	16,1		2209200	17,1	15,5		2284800	17,6	13,2		2360400	18,5	13,2
25	2134800	16,3	15,8	26	2210400	17,0	15,3	27	2286000	17,6	13,6	28	2361600	18,4	13,7
	2136000	16,3	16,0		2211600	17,0	15,0		2287200	17,4	14,1		2362800	18,4	13,7
	2137200	16,3	15,7		2212800	16,9	15,0		2288400	17,4	15,4		2364000	18,4	14,1
25	2138400	16,3	15,8	26	2214000	16,8	15,1	27	2289600	17,4	14,7	28	2365200	18,3	14,4
	2139600	16,3	15,7		2215200	16,7	14,9		2290800	17,3	15,1		2366400	18,3	14,0
	2140800	16,4	15,8		2216400	16,8	15,1		2292000	17,3	14,3		2367600	18,3	14,1
25	2142000	16,5	15,8	26	2217600	16,8	14,8	27	2293200	17,4	15,0	28	2368800	18,2	14,7
	2143200	16,6	15,5		2218800	16,9	15,2		2294400	17,4	16,6		2370000	18,2	15,1
	2144400	16,7	14,9		2220000	16,8	14,8		2295600	17,3	16,2		2371200	18,1	15,3
25	2145600	16,8	14,5	26	2221200	16,7	14,7	27	2296800	17,3	16,1	28	2372400	18,1	15,9
	2146800	16,9	14,6		2222400	16,8	14,9		2298000	17,4	16,9		2373600	18,0	15,7
	2148000	17,2	14,2		2223600	16,8	14,5		2299200	17,3	16,5		2374800	17,7	16,2
25	2149200	17,4	13,8	26	2224800	16,8	14,6	27	2300400	17,3	15,9	28	2376000	17,8	16,1
	2150400	17,5	13,8		2226000	17,0	14,5		2301600	17,3	15,8		2377200	17,7	16,3
	2151600	17,6	13,1		2227200	17,0	14,4		2302800	17,2	15,6		2378400	17,9	17,0
25	2152800	17,8	12,7	26	2228400	17,0	14,3	27	2304000	17,2	16,6	28	2379600	17,6	16,7
	2154000	17,8	12,1		2229600	17,1	14,0		2305200	17,2	16,5		2380800	17,6	17,0
	2155200	17,8	11,6		2230800	17,2	13,8		2306400	17,3	16,7		2382000	17,6	17,1
25	2156400	17,8	11,9	26	2232000	17,3	13,6	27	2307600	17,3	16,4	28	2383200	17,6	16,9
	2157600	17,9	12,4		2233200	17,5	13,3		2308800	17,4	16,0		2384400	17,6	17,2
	2158800	17,9	11,8		2234400	17,6	12,9		2310000	17,4	15,8		2385600	17,5	17,5
25	2160000	18,0	11,8	26	2235600	17,6	12,5	27	2311200	17,5	15,5	28	2386800	17,6	17,0
	2161200	18,1	11,7		2236800	17,8	12,2		2312400	17,5	15,7		2388000	17,6	16,7
	2162400	18,1	11,7		2238000	17,8	11,7		2313600	17,4	15,0		2389200	17,6	16,7
26	2163600	18,1	11,4	26	2239200	17,9	11,0	27	2314800	17,5	14,4	28	2390400	17,6	16,9
	2164800	18,3	10,8		2240400	18,0	10,2		2316000	17,6	14,1		2391600	17,6	16,4
	2166000	18,3	10,0		2241600	18,1	10,0		2317200	17,6	13,9		2392800	17,6	15,9
26	2167200	18,3	9,9	26	2242800	18,1	9,5	27	2318400	17,6	13,6	28	2394000	17,8	15,3
	2168400	18,3	9,8		2244000	18,2	9,7		2319600	17,8	13,5		2395200	17,7	15,1
	2169600	18,2	9,7		2245200	18,2	9,4		2320800	17,8	13,3		2396400	17,8	15,1
26	2170800	18,4	9,0	26	2246400	18,2	9,0	27	2322000	17,8	13,2	28	2397600	17,8	14,7
	2172000	18,3	8,7		2247600	18,2	10,3		2323200	18,0	12,8		2398800	17,7	14,4
	2173200	18,1	8,3		2248800	18,2	10,7		2324400	18,1	12,3		2400000	17,9	13,8
26	2174400	18,1	8,0	27	2250000	18,3	11,0	27	2325600	18,2	11,9	28	2401200	17,9	13,6
	2175600	18,1	8,5		2251200	18,5	10,7		2326800	18,3	11,1		2402400	18,1	13,4
	2176800	18,1	8,5		2252400	18,4	10,3		2328000	18,3	10,3		2403600	18,0	13,0
26	2178000	18,1	8,7	27	2253600	18,3	10,4	27	2329200	18,5	10,0	28	2404800	18,1	12,9
	2179200	18,1	8,7		2254800	18,3	10,2		2330400	18,5	9,4		2406000	18,2	12,7
	2180400	18,1	9,4		2256000	18,5	10,0		2331600	18,5	9,3		2407200	18,3	12,7
26	2181600	18,1	9,8	27	2257200	18,5	10,2	27	2332800	18,5	9,0	28	2408400	18,4	12,6
	2182800	18,1	10,4		2258400	18,5	10,2		2334000	18,6	8,4		2409600	18,5	12,4
	2184000	18,0	11,1		2259600	18,4	10,1		2335200	18,6	8,0		2410800	18,5	12,2
26	2185200	18,0	11,3	27	2260800	18,4	10,0	28	2336400	18,6	8,0	28	2412000	18,6	12,1
	2186400	18,0	11,3		2262000	18,3	9,6		2337600	18,6	8,1		2413200	18,8	11,9
	2187600	18,0	11,8		2263200	18,2	9,6		2338800	18,7	7,4		2414400	18,8	11,8
26	2188800	17,9	12,0	27	2264400	18,2	9,5	28	2340000	18,7	7,6	28	2415600	18,8	11,7
	2190000	17,9	12,3		2265600	18,3	9,2		2341200	18,7	7,1		2416800	18,8	11,6
	2191200	17,9	12,4		2266800	18,2	9,3		2342400	18,7	7,0		2418000	18,9	11,3

Set 3 - 21st of May to 20th of June

Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)	Day	Seconds	Temp inside box (°C)	Air temp (°C)
28	2419200	18,9	11,3	29	2494800	16,8	14,2	30	2570400	16,4	14,3	31	2646000	17,0	16,2
	2420400	18,9	11,3		2496000	16,9	13,9		2571600	16,3	14,1		2647200	17,0	16,1
	2421600	19,0	11,3		2497200	17,3	13,8		2572800	16,6	14,0		2648400	17,1	16,3
29	2422800	19,0	11,5	29	2498400	17,3	13,5	30	2574000	16,6	13,8	31	2649600	16,9	16,3
	2424000	19,0	11,6		2499600	17,3	13,4		2575200	16,8	13,6		2650800	16,8	16,6
	2425200	18,9	11,7		2500800	17,4	13,2		2576400	16,8	13,3		2652000	16,8	16,5
29	2426400	18,8	11,8	29	2502000	17,5	13,0	30	2577600	16,9	12,9	31	2653200	16,9	13,0
	2427600	18,9	11,9		2503200	17,5	13,2		2578800	16,9	12,8		2654400	16,8	11,2
	2428800	18,9	12,0		2504400	17,5	13,2		2580000	17,0	12,6		2655600	17,1	10,8
29	2430000	18,8	12,1	29	2505600	17,5	13,5	30	2581200	17,1	12,3	31	2656800	17,1	10,9
	2431200	18,9	12,2		2506800	17,5	13,6		2582400	17,2	12,2		2658000	17,2	11,5
	2432400	18,8	12,3		2508000	17,5	13,3		2583600	17,2	12,0		2659200	17,3	12,2
29	2433600	18,8	12,4	30	2509200	17,3	13,1	30	2584800	17,3	12,0	31	2660400	17,1	12,5
	2434800	18,7	12,5		2510400	17,2	12,5		2586000	17,5	11,7		2661600	17,2	13,4
	2436000	18,7	12,5		2511600	17,2	12,1		2587200	17,5	11,3		2662800	17,2	13,4
29	2437200	18,6	12,5	30	2512800	17,2	11,9	30	2588400	17,6	11,3	31	2664000	17,3	12,8
	2438400	18,6	12,0		2514000	17,4	11,8		2589600	17,5	11,1		2665200	17,5	12,7
	2439600	18,5	11,9		2515200	17,5	11,7		2590800	17,6	10,7		2666400	17,5	12,5
29	2440800	18,6	11,8	30	2516400	17,5	12,2	30	2592000	17,7	10,7	31	2667600	17,6	12,2
	2442000	18,5	11,2		2517600	17,4	12,4		2593200	17,7	10,5		2668800	17,6	12,1
	2443200	18,4	10,7		2518800	17,2	12,3		2594400	17,8	10,5		2670000	17,5	11,6
29	2444400	18,4	10,5	30	2520000	17,2	12,4	31	2595600	17,9	10,0	31	2671200	17,5	11,3
	2445600	18,3	10,5		2521200	17,3	12,2		2596800	17,8	9,8		2672400	17,5	10,7
	2446800	18,3	10,5		2522400	17,3	12,2		2598000	17,8	9,7		2673600	17,6	10,4
29	2448000	18,2	10,7	30	2523600	17,2	12,1	31	2599200	17,9	9,6	31	2674800	17,7	10,2
	2449200	18,2	10,7		2524800	17,3	12,4		2600400	17,9	9,3		2676000	17,6	10,2
	2450400	18,2	10,9		2526000	17,3	12,5		2601600	17,9	9,4		2677200	17,6	9,7
29	2451600	18,0	11,0	30	2527200	17,3	12,6	31	2602800	17,9	9,4	31	2678400	17,6	9,4
	2452800	18,0	11,3		2528400	17,3	12,7		2604000	17,9	9,2				
	2454000	18,0	11,8		2529600	17,2	12,8		2605200	17,9	9,2				
29	2455200	18,0	12,2	30	2530800	17,2	12,8	31	2606400	17,9	9,3				
	2456400	18,1	12,9		2532000	16,9	12,9		2607600	17,9	9,5				
	2457600	18,1	13,2		2533200	16,9	13,1		2608800	17,9	9,6				
29	2458800	18,0	13,6	30	2534400	16,6	13,2	31	2610000	17,8	9,9				
	2460000	18,0	14,6		2535600	16,6	13,5		2611200	17,8	10,2				
	2461200	18,0	14,9		2536800	16,6	13,3		2612400	17,8	10,4				
29	2462400	17,9	14,8	30	2538000	16,5	13,4	31	2613600	17,7	10,5				
	2463600	17,5	15,4		2539200	16,4	13,8		2614800	17,7	10,9				
	2464800	17,3	15,9		2540400	16,4	14,1		2616000	17,7	11,6				
29	2466000	17,2	16,7	30	2541600	16,4	14,0	31	2617200	17,6	12,1				
	2467200	17,2	16,5		2542800	16,3	13,2		2618400	17,7	12,0				
	2468400	17,2	16,3		2544000	16,2	13,3		2619600	17,6	12,2				
29	2469600	17,0	16,2	30	2545200	16,3	13,7	31	2620800	17,6	12,5				
	2470800	16,8	16,1		2546400	16,1	13,7		2622000	17,5	13,2				
	2472000	16,8	16,4		2547600	16,2	13,7		2623200	17,5	13,4				
29	2473200	16,8	16,5	30	2548800	16,0	14,5	31	2624400	17,4	13,8				
	2474400	17,0	16,9		2550000	16,3	15,4		2625600	17,4	14,2				
	2475600	17,1	16,6		2551200	16,4	14,9		2626800	17,4	14,6				
29	2476800	17,3	16,8	30	2552400	16,5	15,1	31	2628000	17,4	12,4				
	2478000	17,4	17,2		2553600	16,5	14,8		2629200	17,3	12,0				
	2479200	17,3	16,4		2554800	16,4	14,5		2630400	17,3	12,4				
29	2480400	17,3	14,7	30	2556000	16,4	14,6	31	2631600	17,3	12,9				
	2481600	17,2	16,4		2557200	16,5	14,5		2632800	17,2	13,3				
	2482800	17,2	16,2		2558400	16,3	14,8		2634000	17,1	14,3				
29	2484000	17,4	15,8	30	2559600	16,2	14,7	31	2635200	17,1	14,9				
	2485200	17,4	16,5		2560800	16,3	14,9		2636400	17,1	13,4				
	2486400	17,4	15,8		2562000	16,4	15,2		2637600	17,1	13,5				
29	2487600	17,3	15,3	30	2563200	16,4	15,2	31	2638800	17,1	14,6				
	2488800	17,0	15,3		2564400	16,3	14,8		2640000	17,1	14,7				
	2490000	16,7	15,0		2565600	16,5	14,4		2641200	17,1	15,9				
29	2491200	16,6	14,7	30	2566800	16,4	14,3	31	2642400	17,1	15,9				
	2492400	17,2	14,6		2568000	16,4	14,4		2643600	17,1	16,1				
	2493600	17,1	14,2		2569200	16,4	14,5		2644800	17,1	16,1				

Annex III

Tables containing the wind speed, the global radiation and diffuse radiation during the three sets of time

Set 1 - 8th to 20th of April											
Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)
0	2,963	75600	1,3175	151200	3,793	226800	4,164	302400	2,316	378000	0,841
1200	3,1225	76800	1,987	152400	3,1375	228000	4,232	303600	2,9605	379200	1,506
2400	3,5135	78000	2,3265	153600	2,9035	229200	3,855	304800	3,102	380400	1,8845
3600	1,589	79200	2,462	154800	1,9115	230400	4,444	306000	3,8675	381600	1,5695
4800	2,335	80400	2,3785	156000	1,992	231600	4,4735	307200	3,713	382800	3,23
6000	1,032	81600	2,0505	157200	2,2935	232800	3,988	308400	4,1895	384000	3,907
7200	1,5175	82800	2,687	158400	1,8275	234000	4,2135	309600	3,993	385200	4,317
8400	2,0535	84000	2,268	159600	2,3605	235200	3,9945	310800	4,7075	386400	5,4765
9600	2,6345	85200	1,545	160800	1,722	236400	3,238	312000	4,3565	387600	5,6725
10800	2,5525	86400	1,6803	162000	2,3895	237600	2,4585	313200	4,383	388800	6,4235
12000	2,9655	87600	1,368	163200	1,669	238800	2,4585	314400	4,9345	390000	5,9485
13200	1,921	88800	1,601	164400	2,256	240000	1,721	315600	4,7175	391200	6,0425
14400	1,6	90000	2,1345	165600	2,887	241200	1,5915	316800	3,59	392400	6,1895
15600	1,4595	91200	2,568	166800	3,0705	242400	0,483	318000	4,09	393600	5,836
16800	1,3215	92400	3,5625	168000	2,5345	243600	1,1555	319200	4,211	394800	5,3895
18000	2,194	93600	3,2155	169200	2,044	244800	2,393	320400	3,89	396000	5,3935
19200	2,1015	94800	2,844	170400	2,1485	246000	2,4565	321600	4,4095	397200	3,902
20400	1,872	96000	3,673	171600	2,288	247200	1,979	322800	3,412	398400	3,546
21600	2,7475	97200	4,0345	172800	2,073	248400	2,599	324000	2,644	399600	3,7425
22800	2,1185	98400	3,8925	174000	1,8985	249600	2,8105	325200	1,6375	400800	3,929
24000	2,147	99600	3,4725	175200	2,1445	250800	2,722	326400	1,6735	402000	4,88
25200	2,1625	100800	3,8185	176400	2,053	252000	2,2015	327600	1,258	403200	5,262
26400	2,006	102000	4,211	177600	2,0005	253200	2,4575	328800	0,621	404400	4,1755
27600	2,1375	103200	3,004	178800	2,344	254400	3,021	330000	0,5515	405600	2,465
28800	1,8785	104400	3,919	180000	1,964	255600	3,6915	331200	0,9875	406800	1,227
30000	1,49	105600	3,603	181200	2,072	256800	3,6065	332400	1,1525	408000	2,259
31200	1,321	106800	2,9915	182400	1,5015	258000	3,4815	333600	1,1135	409200	1,808
32400	0,9215	108000	2,8995	183600	1,705	259200	2,9773	334800	1,6745	410400	0,572
33600	1,405	109200	2,5775	184800	1,6915	260400	2,351	336000	1,685	411600	0,7045
34800	1,789	110400	1,972	186000	2,409	261600	2,1885	337200	1,949	412800	2,645
36000	1,9545	111600	1,295	187200	1,0175	262800	2,6165	338400	2,098	414000	2,511
37200	1,979	112800	0,871	188400	0,827	264000	2,8745	339600	2,1465	415200	2,0705
38400	2,41	114000	0,7575	189600	0,9445	265200	2,794	340800	2,632	416400	2,65
39600	1,7085	115200	1,713	190800	1,151	266400	2,901	342000	2,7015	417600	2,386
40800	1,35	116400	2,127	192000	0,812	267600	2,9695	343200	2,877	418800	1,703
42000	1,3025	117600	2,807	193200	0,9595	268800	3,723	344400	2,797	420000	1,02
43200	2,1305	118800	2,914	194400	0,3875	270000	3,3795	345600	2,7733	421200	0,5065
44400	2,0955	120000	4,2995	195600	0,5215	271200	3,1065	346800	2,982	422400	0,7385
45600	1,907	121200	4,6055	196800	0,608	272400	3,0265	348000	2,812	423600	0,7075
46800	1,8105	122400	3,511	198000	0,467	273600	3,2595	349200	2,463	424800	0,372
48000	1,4215	123600	4,4845	199200	0,273	274800	3,614	350400	1,6935	426000	0,6895
49200	2,1635	124800	3,725	200400	0,679	276000	3,763	351600	0,6955	427200	0,8305
50400	3,109	126000	3,0965	201600	0,8285	277200	3,2775	352800	0,788	428400	0,989
51600	3,2195	127200	3,835	202800	0,9595	278400	3,143	354000	1,1675	429600	0,3225
52800	2,319	128400	3,747	204000	0,9535	279600	3,1285	355200	1,2285	430800	0,526
54000	2,1995	129600	4,3245	205200	1,955	280800	3,5135	356400	1,613	432000	1,233
55200	1,7255	130800	3,9765	206400	2,547	282000	3,13	357600	1,706	433200	0,727
56400	1,486	132000	4,127	207600	2,578	283200	3,5465	358800	1,4395	434400	0,4215
57600	1,985	133200	5,007	208800	2,9635	284400	3,727	360000	0,965	435600	1,1335
58800	3,142	134400	5,324	210000	2,2845	285600	3,521	361200	1,0015	436800	1,351
60000	2,293	135600	4,6235	211200	3,1675	286800	3,118	362400	1,993	438000	1,304
61200	2,2295	136800	3,915	212400	3,3705	288000	2,269	363600	2,0185	439200	1,0825
62400	2,804	138000	3,9885	213600	3,8075	289200	2,829	364800	2,023	440400	1,409
63600	2,7245	139200	3,1265	214800	3,6265	290400	2,1035	366000	1,8595	441600	1,5005
64800	3,4705	140400	3,611	216000	3,998	291600	1,387	367200	1,7595	442800	1,4905
66000	4,4595	141600	4,1675	217200	4,0895	292800	2,1155	368400	2,3335	444000	1,3355
67200	3,5085	142800	3,6375	218400	4,299	294000	1,8715	369600	2,0505	445200	1,8075
68400	2,1365	144000	3,7055	219600	5,13	295200	1,74	370800	2,2575	446400	1,8785
69600	1,714	145200	3,32	220800	5,1495	296400	1,607	372000	1,9275	447600	1,9395
70800	0,9225	146400	4,185	222000	4,289	297600	2,7765	373200	1,6495	448800	1,966
72000	1,4845	147600	3,4525	223200	5,381	298800	3,367	374400	1,4395	450000	1,886
73200	1,598	148800	3,3225	224400	4,169	300000	3,365	375600	1,1165	451200	1,8105
74400	1,182	150000	3,575	225600	4,3995	301200	2,672	376800	1,0045	452400	1,628

Set 1 - 8th to 20th of April											
Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)
453600	1,1835	529200	4,5555	604800	3,7015	680400	3,1775	756000	2,3045	831600	5,413
454800	1,5905	530400	3,543	606000	3,4575	681600	2,5895	757200	2,3245	832800	5,679
456000	1,855	531600	3,093	607200	3,1755	682800	2,631	758400	2,224	834000	5,207
457200	1,3965	532800	4,1895	608400	3,5935	684000	2,6555	759600	1,302	835200	4,746
458400	1,372	534000	5,5995	609600	3,3	685200	2,4865	760800	1,616	836400	4,226
459600	1,235	535200	5,441	610800	3,486	686400	2,4835	762000	1,37	837600	4,204
460800	1,4155	536400	5,055	612000	3,899	687600	2,876	763200	1,4055	838800	3,4825
462000	1,4885	537600	3,9785	613200	4,425	688800	2,0745	764400	1,115	840000	3,72
463200	1,187	538800	4,656	614400	4,09	690000	1,8095	765600	1,471	841200	3,321
464400	1,0385	540000	4,295	615600	4,402	691200	2,0685	766800	1,8325	842400	2,5995
465600	0,649	541200	6,011	616800	4,8525	692400	2,837	768000	1,5935	843600	2,423
466800	0,792	542400	5,1085	618000	5,4545	693600	2,242	769200	2,329	844800	2,7025
468000	1,453	543600	3,3215	619200	5,117	694800	1,03	770400	2,501	846000	1,9755
469200	1,5335	544800	5,3585	620400	4,0845	696000	1,204	771600	2,488	847200	1,766
470400	1,2525	546000	5,7865	621600	3,122	697200	1,471	772800	2,7635	848400	1,963
471600	0,8815	547200	5,1735	622800	3,5675	698400	1,7655	774000	2,102	849600	2,0125
472800	0,829	548400	4,9535	624000	3,7795	699600	1,298	775200	2,537	850800	1,7805
474000	0,9795	549600	5,0445	625200	4,153	700800	2,1355	776400	2,8845	852000	2,702
475200	0,696	550800	5,4045	626400	4,4085	702000	1,7905	777600	1,912	853200	1,523
476400	0,5625	552000	5,832	627600	3,882	703200	1,932	778800	1,5935	854400	1,255
477600	1,573	553200	5,4255	628800	2,6495	704400	1,667	780000	1,496	855600	1,144
478800	1,83	554400	4,3325	630000	2,8785	705600	1,936	781200	1,5105	856800	0,8925
480000	2,1645	555600	5,6825	631200	2,8455	706800	2,04	782400	1,571	858000	0,2935
481200	2,325	556800	5,9335	632400	3,4335	708000	1,6715	783600	1,541	859200	0,317
482400	3,0435	558000	5,5475	633600	4,06	709200	1,891	784800	1,568	860400	0,5955
483600	3,489	559200	3,8205	634800	4,325	710400	1,358	786000	1,507	861600	1,238
484800	3,2095	560400	4,083	636000	3,258	711600	1,578	787200	2,2135	862800	2,045
486000	2,9025	561600	4,509	637200	2,83	712800	0,6075	788400	2,142	864000	2,3675
487200	2,244	562800	4,023	638400	3,1305	714000	0,821	789600	1,173	865200	2,4115
488400	2,4535	564000	4,202	639600	2,9235	715200	0,771	790800	1,291	866400	2,5955
489600	2,4475	565200	3,3925	640800	2,32	716400	1,033	792000	1,3635	867600	4,35
490800	2,4985	566400	2,726	642000	3,7935	717600	0,6925	793200	0,9645	868800	5,858
492000	2,4405	567600	2,6355	643200	3,849	718800	0,531	794400	1,1255	870000	5,122
493200	2,3155	568800	3,669	644400	3,982	720000	0,732	795600	1,501	871200	4,7805
494400	2,683	570000	3,7345	645600	4,4975	721200	2,0285	796800	2,033	872400	4,663
495600	2,9595	571200	3,6065	646800	3,3005	722400	1,9665	798000	2,825	873600	3,867
496800	4,1555	572400	3,6605	648000	3,9065	723600	2,7125	799200	2,438	874800	4,1565
498000	4,486	573600	2,8835	649200	3,095	724800	1,939	800400	1,9265	876000	4,591
499200	4,455	574800	2,9045	650400	2,859	726000	1,718	801600	2,3285	877200	4,327
500400	3,34	576000	5,646	651600	2,637	727200	2,564	802800	2,0815	878400	3,761
501600	3,897	577200	6,015	652800	3,518	728400	2,705	804000	3,632	879600	4,103
502800	4,3095	578400	5,347	654000	1,877	729600	2,6555	805200	2,311	880800	4,604
504000	3,8685	579600	4,8185	655200	2,824	730800	2,6085	806400	2,0565	882000	4,518
505200	3,706	580800	4,4205	656400	4,982	732000	3,2055	807600	3,753	883200	4,0245
506400	3,4095	582000	4,1575	657600	4,0685	733200	3,529	808800	4,063	884400	3,2175
507600	3,4505	583200	3,3665	658800	2,6095	734400	3,564	810000	3,8785	885600	3,9495
508800	3,598	584400	2,7815	660000	1,7805	735600	3,4085	811200	3,425	886800	3,486
510000	4,0685	585600	2,7395	661200	1,907	736800	3,9005	812400	2,656	888000	3,1325
511200	4,281	586800	2,7645	662400	1,6525	738000	3,979	813600	2,4865	889200	2,7405
512400	4,252	588000	2,6685	663600	2,8895	739200	4,0325	814800	1,765	890400	3,338
513600	3,8775	589200	2,6645	664800	1,629	740400	3,759	816000	1,1585	891600	5,1235
514800	4,735	590400	2,828	666000	2,876	741600	4,513	817200	2,0635	892800	6,069
516000	5,099	591600	3,069	667200	2,6185	742800	4,355	818400	2,5255	894000	6,5575
517200	5,105	592800	2,955	668400	3,256	744000	4,0275	819600	2,099	895200	5,5695
518400	5,1895	594000	3,0145	669600	2,762	745200	3,968	820800	2,9475	896400	5,43
519600	4,3055	595200	2,9645	670800	2,2225	746400	3,4095	822000	2,8575	897600	4,9165
520800	3,9365	596400	2,706	672000	2,524	747600	2,835	823200	4,5095	898800	4,239
522000	4,835	597600	2,3335	673200	2,785	748800	3,0845	824400	4,099	900000	4,23
523200	4,0135	598800	2,5895	674400	2,927	750000	3,1555	825600	4,585	901200	3,1805
524400	4,1685	600000	3,296	675600	3,127	751200	2,3865	826800	4,8205	902400	3,6065
525600	5,328	601200	3,628	676800	2,915	752400	2,635	828000	5,228	903600	3,1135
526800	5,355	602400	3,4475	678000	2,7485	753600	2,0325	829200	4,7285	904800	3,097
528000	4,953	603600	3,164	679200	2,7325	754800	2,517	830400	5,3405	906000	4,389

Set 1 - 8th to 20th of April					
Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)
907200	3,864	982800	4,2125	1058400	4,0565
908400	2,9915	984000	3,885	1059600	3,5225
909600	3,775	985200	4,8085	1060800	5,374
910800	2,754	986400	5,3285	1062000	5,5525
912000	3,113	987600	4,364	1063200	4,778
913200	2,561	988800	4,828	1064400	4,0865
914400	3,193	990000	4,911	1065600	4,4315
915600	3,096	991200	5,028	1066800	5,335
916800	3,2955	992400	5,3115		
918000	3,1775	993600	5,9995		
919200	3,138	994800	5,366		
920400	4,1575	996000	5,4365		
921600	4,342	997200	6,9635		
922800	4,998	998400	6,449		
924000	4,812	999600	5,79		
925200	4,4465	1000800	5,8965		
926400	3,0385	1002000	6,834		
927600	4,225	1003200	6,8065		
928800	3,223	1004400	6,7175		
930000	3,889	1005600	7,45		
931200	2,676	1006800	5,995		
932400	2,889	1008000	7,055		
933600	3,7895	1009200	6,7375		
934800	3,042	1010400	6,7885		
936000	2,6265	1011600	5,679		
937200	2,3955	1012800	4,4325		
938400	2,4065	1014000	4,6785		
939600	1,8525	1015200	5,3425		
940800	2,8835	1016400	4,137		
942000	2,7495	1017600	4,4385		
943200	1,09	1018800	4,8665		
944400	1,2285	1020000	3,915		
945600	1,1735	1021200	3,7965		
946800	1,0255	1022400	4,463		
948000	1,5415	1023600	3,532		
949200	1,9835	1024800	3,3465		
950400	2,078	1026000	2,117		
951600	1,919	1027200	2,7875		
952800	1,8415	1028400	2,192		
954000	1,3865	1029600	2,2375		
955200	1,902	1030800	2,4075		
956400	2,434	1032000	1,8075		
957600	2,3695	1033200	3,1895		
958800	2,5265	1034400	2,3855		
960000	1,906	1035600	3,0035		
961200	1,753	1036800	1,2005		
962400	1,8555	1038000	0,9075		
963600	1,9735	1039200	0,631		
964800	2,1935	1040400	0,9115		
966000	1,895	1041600	1,0225		
967200	1,6065	1042800	1,274		
968400	2,367	1044000	1,9635		
969600	2,731	1045200	2,868		
970800	3,287	1046400	4,7485		
972000	3,9185	1047600	4,8415		
973200	3,504	1048800	4,3425		
974400	2,8525	1050000	4,1805		
975600	3,7415	1051200	4,9175		
976800	4,1355	1052400	5,06		
978000	4,612	1053600	4,39		
979200	3,934	1054800	3,8135		
980400	3,256	1056000	3,8745		
981600	3,2335	1057200	3,842		

XL

Set 2 - 21st of April to 20th of May											
Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)
0	3,789	75600	1,7805	151200	3,358	226800	5,2745	302400	6,0235	378000	2,327
1200	3,6545	76800	0,7045	152400	3,2575	228000	5,6805	303600	5,517	379200	2,3985
2400	4,259	78000	0,688	153600	3,1585	229200	5,905	304800	4,8765	380400	2,472
3600	4,3975	79200	1,215	154800	1,839	230400	5,7945	306000	5,613	381600	3,001
4800	3,9165	80400	1,6025	156000	1,8845	231600	4,6225	307200	5,078	382800	3,038
6000	2,6855	81600	1,6065	157200	1,128	232800	4,6535	308400	5,8115	384000	3,128
7200	2,928	82800	1,365	158400	0,6155	234000	5,247	309600	5,2715	385200	3,3455
8400	2,934	84000	1,454	159600	0,7835	235200	5,1415	310800	4,897	386400	3,5705
9600	2,7595	85200	1,288	160800	0,5645	236400	4,1015	312000	5,483	387600	3,463
10800	2,637	86400	1,2575	162000	0,991	237600	4,2165	313200	5,9625	388800	3,031
12000	2,431	87600	2,032	163200	0,8905	238800	3,959	314400	6,054	390000	3,936
13200	1,448	88800	1,334	164400	1,2255	240000	3,0255	315600	5,836	391200	3,475
14400	1,023	90000	1,5535	165600	1,8675	241200	2,9645	316800	6,09	392400	3,61
15600	1,968	91200	1,6595	166800	1,2935	242400	3,5085	318000	5,926	393600	4,133
16800	1,9035	92400	1,9215	168000	0,696	243600	3,9975	319200	4,584	394800	3,379
18000	2,7275	93600	2,228	169200	1,6625	244800	4,239	320400	5,911	396000	3,7435
19200	2,751	94800	2,904	170400	2,0645	246000	2,6195	321600	5,096	397200	3,847
20400	2,841	96000	3,005	171600	1,685	247200	2,581	322800	5,5485	398400	3,549
21600	2,8015	97200	3,0635	172800	1,3045	248400	2,363	324000	5,377	399600	3,942
22800	2,4705	98400	3,44	174000	1,5815	249600	1,437	325200	5,112	400800	3,963
24000	3,555	99600	3,066	175200	2,0745	250800	0,9825	326400	5,2425	402000	3,727
25200	3,024	100800	3,889	176400	2,768	252000	0,592	327600	4,3065	403200	4,741
26400	2,14	102000	4,564	177600	2,2815	253200	1,558	328800	4,0485	404400	6,0135
27600	2,411	103200	3,777	178800	1,827	254400	1,4635	330000	4,096	405600	4,8905
28800	2,6815	104400	2,9425	180000	2,6905	255600	1,774	331200	3,4265	406800	5,133
30000	2,808	105600	3,673	181200	2,7375	256800	2,0785	332400	2,514	408000	5,017
31200	2,687	106800	3,504	182400	2,7935	258000	3,2155	333600	1,863	409200	3,6295
32400	2,069	108000	3,9345	183600	3,1115	259200	3,868	334800	1,874	410400	5,238
33600	1,8865	109200	5,064	184800	3,1715	260400	4,0745	336000	2,749	411600	4,452
34800	1,2045	110400	4,8335	186000	3,2475	261600	3,0425	337200	3,0405	412800	3,846
36000	2,0015	111600	4,329	187200	3,251	262800	2,159	338400	3,8675	414000	2,272
37200	2,5455	112800	5,396	188400	3,0765	264000	2,003	339600	3,94	415200	2,0265
38400	2,9685	114000	4,965	189600	2,9075	265200	2,9635	340800	3,837	416400	2,051
39600	3,628	115200	4,405	190800	2,783	266400	4,6095	342000	4,089	417600	1,657
40800	3,8925	116400	4,316	192000	2,4685	267600	4,0905	343200	3,401	418800	0,861
42000	4,0965	117600	4,084	193200	2,732	268800	3,6435	344400	2,0355	420000	1,0265
43200	4,2225	118800	4,27	194400	2,2995	270000	2,8355	345600	1,735	421200	1,204
44400	4,572	120000	4,4405	195600	1,948	271200	3,15	346800	2,015	422400	1,8395
45600	3,8675	121200	3,9985	196800	2,0035	272400	2,9835	348000	1,34	423600	2,0365
46800	5,0205	122400	4,326	198000	1,3555	273600	3,0125	349200	0,961	424800	1,88
48000	5,09	123600	4,0275	199200	0,9245	274800	2,3995	350400	0,5175	426000	2,127
49200	4,2185	124800	3,768	200400	0,8875	276000	3,117	351600	0,6125	427200	1,853
50400	4,462	126000	3,6425	201600	0,769	277200	4,26	352800	0,616	428400	1,4625
51600	4,7675	127200	3,0915	202800	0,9365	278400	5,1255	354000	0,535	429600	1,4735
52800	5,2855	128400	3,0275	204000	1,4215	279600	5,5005	355200	0,4855	430800	1,6845
54000	5,562	129600	3,104	205200	2,534	280800	4,0565	356400	0,697	432000	1,663
55200	5,104	130800	2,94	206400	3,5595	282000	3,878	357600	1,465	433200	1,223
56400	5,269	132000	3,2645	207600	3,542	283200	3,534	358800	1,1555	434400	1,4415
57600	5,043	133200	3,7265	208800	3,951	284400	3,802	360000	1,143	435600	2,044
58800	4,6635	134400	3,8845	210000	4,2595	285600	3,9135	361200	0,7805	436800	1,52
60000	3,998	135600	3,963	211200	4,501	286800	3,5445	362400	1,3385	438000	1,0665
61200	3,9005	136800	3,5885	212400	4,6995	288000	5,8	363600	1,772	439200	1,548
62400	4,1425	138000	3,7145	213600	5,3745	289200	5,9065	364800	1,69	440400	1,147
63600	4,181	139200	4,097	214800	5,5825	290400	5,345	366000	1,682	441600	1,1325
64800	4,499	140400	3,73	216000	5,5305	291600	6,768	367200	1,7635	442800	1,445
66000	4,262	141600	4,2025	217200	5,4115	292800	5,8545	368400	1,7055	444000	1,6515
67200	3,6755	142800	3,4835	218400	5,5285	294000	6,38	369600	1,8315	445200	2,204
68400	2,432	144000	3,2705	219600	5,4435	295200	6,984	370800	1,019	446400	2,156
69600	2,3105	145200	2,0095	220800	5,262	296400	6,37	372000	0,9785	447600	1,8775
70800	1,699	146400	3,1255	222000	5,6515	297600	6,662	373200	1,6435	448800	2,5055
72000	1,787	147600	2,386	223200	6,0245	298800	5,922	374400	2,01	450000	2,3565
73200	1,041	148800	2,731	224400	6,5035	300000	5,5555	375600	1,8065	451200	2,1435
74400	2,0385	150000	2,9965	225600	6,012	301200	5,115	376800	2,143	452400	2,1345

Set 2 - 21st of April to 20th of May											
Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)
453600	1,5885	529200	2,92	604800	5,768	680400	3,6015	756000	4,564	831600	5,314
454800	1,2055	530400	2,5525	606000	6,1855	681600	3,329	757200	4,6505	832800	4,08
456000	1,3105	531600	2,383	607200	5,159	682800	3,1885	758400	4,6655	834000	4,4995
457200	1,9415	532800	3,714	608400	4,6155	684000	3,911	759600	4,289	835200	5,5885
458400	2,0345	534000	3,727	609600	5,061	685200	4,1215	760800	3,9405	836400	4,8575
459600	2,237	535200	3,223	610800	4,427	686400	4,6555	762000	3,4185	837600	4,612
460800	2,6265	536400	1,356	612000	4,786	687600	4,523	763200	4,26	838800	4,7485
462000	3,465	537600	2,6325	613200	5,3615	688800	4,5545	764400	5,134	840000	4,8975
463200	2,8515	538800	3,2605	614400	4,7785	690000	5,1735	765600	6,037	841200	4,288
464400	1,4555	540000	3,6915	615600	5,5845	691200	4,159	766800	5,783	842400	3,4935
465600	1,885	541200	3,344	616800	5,316	692400	4,8095	768000	5,692	843600	3,5855
466800	1,586	542400	2,762	618000	4,8305	693600	4,474	769200	5,2875	844800	4,425
468000	1,984	543600	2,841	619200	4,747	694800	3,52	770400	7,017	846000	4,6985
469200	1,497	544800	2,5795	620400	4,8635	696000	4,717	771600	6,079	847200	4,4805
470400	0,749	546000	3,242	621600	4,4815	697200	3,569	772800	5,798	848400	4,0145
471600	2,186	547200	3,104	622800	4,6715	698400	3,43	774000	6,746	849600	4,1615
472800	2,662	548400	2,9885	624000	3,31	699600	2,978	775200	5,9465	850800	4,3675
474000	1,481	549600	2,4685	625200	4,0035	700800	3,0335	776400	6,339	852000	4,755
475200	3,7325	550800	2,1535	626400	3,67	702000	3,7425	777600	6,309	853200	4,3225
476400	4,264	552000	2,287	627600	3,5895	703200	3,377	778800	5,3465	854400	4,5965
477600	2,9485	553200	1,92	628800	4,0785	704400	5,698	780000	5,055	855600	3,52
478800	2,656	554400	1,549	630000	3,4505	705600	4,0505	781200	3,993	856800	3,869
480000	2,383	555600	2,496	631200	3,759	706800	4,5365	782400	5,0695	858000	2,796
481200	2,4605	556800	2,2535	632400	4,0885	708000	6,4125	783600	5,6255	859200	1,5845
482400	2,5035	558000	3,021	633600	4,1065	709200	4,375	784800	4,4085	860400	2,196
483600	3,1215	559200	3,264	634800	3,432	710400	4,305	786000	4,3105	861600	2,4035
484800	5,643	560400	3,177	636000	3,579	711600	4,6255	787200	4,8785	862800	2,23
486000	6,6375	561600	3,411	637200	2,8785	712800	4,889	788400	4,801	864000	2,654
487200	6,1225	562800	3,813	638400	4,371	714000	5,8915	789600	5,167	865200	3,22
488400	6,503	564000	3,705	639600	3,354	715200	6,0775	790800	4,571	866400	3,1595
489600	6,412	565200	3,613	640800	3,257	716400	6,0125	792000	5,0285	867600	2,9025
490800	5,0315	566400	3,667	642000	3,5875	717600	7,15	793200	4,724	868800	2,969
492000	4,837	567600	2,7495	643200	3,0685	718800	7,2585	794400	4,0985	870000	2,943
493200	4,7355	568800	2,609	644400	3,558	720000	7,9	795600	4,267	871200	2,9125
494400	4,677	570000	3,2895	645600	2,7175	721200	8,93	796800	3,426	872400	2,4515
495600	4,4785	571200	3,9975	646800	4,044	722400	9,165	798000	3,5165	873600	1,5695
496800	3,8085	572400	4,5205	648000	3,8235	723600	8,615	799200	2,6865	874800	0,9185
498000	3,6525	573600	4,252	649200	4,0035	724800	8,86	800400	2,998	876000	1,6225
499200	3,0605	574800	5,646	650400	4,1595	726000	8,325	801600	3,246	877200	2,426
500400	2,241	576000	2,699	651600	3,707	727200	8,575	802800	3,294	878400	2,3165
501600	1,446	577200	1,9625	652800	3,485	728400	8,05	804000	3,721	879600	2,3515
502800	2,2785	578400	1,9955	654000	2,129	729600	8,44	805200	3,5515	880800	2,9275
504000	2,137	579600	0,914	655200	2,305	730800	7,565	806400	3,844	882000	3,2185
505200	1,417	580800	0,4755	656400	2,9115	732000	7,595	807600	4,0425	883200	3,397
506400	0,9305	582000	1,6875	657600	2,8055	733200	7,98	808800	4,4895	884400	4,0685
507600	0,777	583200	4,1695	658800	2,813	734400	7,685	810000	4,338	885600	3,8275
508800	0,6225	584400	4,631	660000	2,825	735600	7,635	811200	4,6945	886800	3,641
510000	0,871	585600	3,4695	661200	3,1235	736800	8,205	812400	5,1875	888000	3,618
511200	1,1575	586800	4,617	662400	3,0405	738000	7,815	813600	5,647	889200	3,1245
512400	1,332	588000	3,4645	663600	2,9305	739200	8,205	814800	5,7845	890400	3,0425
513600	2,1725	589200	4,6775	664800	2,5425	740400	7,2695	816000	6,132	891600	3,09
514800	1,371	590400	4,1925	666000	2,4275	741600	6,3	817200	6,472	892800	3,4705
516000	1,721	591600	3,4735	667200	2,7745	742800	6,1755	818400	6,1765	894000	2,938
517200	2,6955	592800	1,615	668400	2,3605	744000	7,3115	819600	4,4685	895200	2,497
518400	3,254	594000	1,3835	669600	2,3265	745200	7,072	820800	4,159	896400	3,13
519600	4,3975	595200	0,8455	670800	2,64	746400	7,695	822000	4,9285	897600	2,937
520800	4,1065	596400	1,322	672000	2,515	747600	7,875	823200	5,6185	898800	2,5525
522000	2,0425	597600	4,8355	673200	2,1495	748800	7,735	824400	4,1235	900000	1,7825
523200	0,4535	598800	8,55	674400	1,5445	750000	7,57	825600	3,298	901200	2,243
524400	0,8925	600000	4,295	675600	0,629	751200	7,34	826800	4,0115	902400	2,0795
525600	2,2865	601200	4,0425	676800	1,07	752400	7,12	828000	5,8265	903600	2,371
526800	3,0425	602400	5,0445	678000	2,069	753600	6,2765	829200	4,6975	904800	2,0575
528000	3,5415	603600	6,158	679200	3,073	754800	5,049	830400	4,2215	906000	2,6585

Set 2 - 21st of April to 20th of May											
Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)
907200	2,8275	982800	5,7755	1058400	0,9335	1134000	1,433	1209600	6,4615	1285200	6,087
908400	3,3155	984000	5,9645	1059600	1,397	1135200	1,188	1210800	7,0435	1286400	6,778
909600	3,8585	985200	6,094	1060800	1,1995	1136400	0,9675	1212000	6,1735	1287600	7,5
910800	4,0265	986400	5,368	1062000	0,764	1137600	1,1055	1213200	6,169	1288800	8,675
912000	3,885	987600	6,1455	1063200	1,1525	1138800	1,0535	1214400	6,1305	1290000	5,9155
913200	4,0795	988800	5,5195	1064400	1,586	1140000	2,216	1215600	6,0595	1291200	7,375
914400	4,3965	990000	6,0355	1065600	2,0095	1141200	1,4285	1216800	5,0915	1292400	8,3
915600	4,5685	991200	5,8435	1066800	1,795	1142400	1,334	1218000	5,186	1293600	8,098
916800	4,018	992400	6,8575	1068000	1,9695	1143600	0,928	1219200	5,852	1294800	9,32
918000	4,0785	993600	6,056	1069200	2,1875	1144800	0,3505	1220400	4,904	1296000	9,495
919200	4,0335	994800	5,656	1070400	2,2285	1146000	0,2615	1221600	5,8175	1297200	8,71
920400	4,0125	996000	5,7485	1071600	2,609	1147200	0,3705	1222800	5,2515	1298400	7,925
921600	3,7265	997200	5,404	1072800	2,634	1148400	0,927	1224000	5,384	1299600	7,4
922800	3,3345	998400	4,976	1074000	3,009	1149600	1,682	1225200	5,8045	1300800	5,56
924000	3,499	999600	5,5595	1075200	2,769	1150800	2,7665	1226400	5,5685	1302000	3,1605
925200	3,464	1000800	5,536	1076400	3,2975	1152000	2,7375	1227600	5,742	1303200	3,615
926400	3,5235	1002000	5,4195	1077600	4,088	1153200	2,6675	1228800	5,2145	1304400	4,1455
927600	4,4965	1003200	4,177	1078800	4,714	1154400	2,712	1230000	5,02	1305600	4,1095
928800	4,0245	1004400	4,8575	1080000	5,2895	1155600	2,9015	1231200	5,12	1306800	3,64
930000	3,1295	1005600	4,1775	1081200	5,855	1156800	2,974	1232400	5,681	1308000	4,203
931200	2,9025	1006800	4,6095	1082400	6,316	1158000	2,9305	1233600	5,295	1309200	3,757
932400	2,5665	1008000	5,3025	1083600	6,2735	1159200	2,717	1234800	5,092	1310400	3,231
933600	2,046	1009200	3,846	1084800	6,342	1160400	3,1365	1236000	5,2125	1311600	3,4535
934800	1,557	1010400	3,881	1086000	6,1205	1161600	4,059	1237200	5,149	1312800	1,8815
936000	1,2375	1011600	4,4545	1087200	5,4025	1162800	4,9665	1238400	5,052	1314000	1,594
937200	0,3705	1012800	4,548	1088400	5,6865	1164000	5,0765	1239600	4,988	1315200	0,769
938400	0,4485	1014000	4,9929	1089600	3,9595	1165200	5,0695	1240800	5,082	1316400	0,8215
939600	0,886	1015200	4,994	1090800	4,362	1166400	5,0185	1242000	5,7985	1317600	0,7385
940800	1,104	1016400	5,385	1092000	4,181	1167600	6,951	1243200	5,159	1318800	0,6285
942000	0,8655	1017600	5,301	1093200	4,4365	1168800	7,525	1244400	6,158	1320000	0,701
943200	0,59	1018800	4,212	1094400	3,6215	1170000	6,515	1245600	6,0655	1321200	0,5375
944400	0,832	1020000	3,3025	1095600	4,008	1171200	6,6175	1246800	5,7955	1322400	0,627
945600	0,7005	1021200	2,7425	1096800	3,6975	1172400	6,1065	1248000	5,847	1323600	1,0245
946800	1,1965	1022400	3,1955	1098000	3,922	1173600	5,1965	1249200	5,556	1324800	0,6985
948000	1,327	1023600	4,0165	1099200	4,414	1174800	5,984	1250400	6,019	1326000	1,36
949200	1,667	1024800	3,985	1100400	4,425	1176000	6,342	1251600	6,375	1327200	1,489
950400	2,057	1026000	3,399	1101600	4,0325	1177200	6,307	1252800	6,212	1328400	1,896
951600	2,7455	1027200	3,1065	1102800	4,2335	1178400	6,536	1254000	7,125	1329600	1,2145
952800	3,2075	1028400	3,7805	1104000	3,798	1179600	6,095	1255200	6,3535	1330800	2,186
954000	2,985	1029600	4,0265	1105200	3,2805	1180800	6,89	1256400	5,9945	1332000	4,0985
955200	2,9375	1030800	4,4665	1106400	2,3565	1182000	5,659	1257600	6,7075	1333200	4,355
956400	2,362	1032000	5,114	1107600	2,349	1183200	6,558	1258800	6,595	1334400	4,8925
957600	2,122	1033200	2,4705	1108800	1,9175	1184400	6,399	1260000	6,594	1335600	4,27
958800	2,089	1034400	3,241	1110000	1,6745	1185600	5,542	1261200	5,8045	1336800	3,9185
960000	1,856	1035600	3,806	1111200	1,362	1186800	5,6065	1262400	6,9245	1338000	4,737
961200	1,829	1036800	2,3245	1112400	1,973	1188000	5,8145	1263600	7,0815	1339200	4,905
962400	1,6245	1038000	2,9965	1113600	2,147	1189200	5,041	1264800	8,56	1340400	5,3735
963600	1,802	1039200	2,779	1114800	1,918	1190400	5,2385	1266000	8,215	1341600	6,394
964800	3,5195	1040400	3,7795	1116000	1,1535	1191600	6,4265	1267200	8,755	1342800	6,9335
966000	3,7755	1041600	3,8005	1117200	1,663	1192800	6,647	1268400	8,68	1344000	7,15
967200	3,12	1042800	3,5655	1118400	1,741	1194000	6,5025	1269600	9,59	1345200	6,71
968400	2,891	1044000	2,8055	1119600	1,854	1195200	6,2555	1270800	8,315	1346400	7,0675
969600	3,2045	1045200	2,6695	1120800	2,066	1196400	6,873	1272000	7,269	1347600	7,98
970800	3,3745	1046400	3,1085	1122000	2,205	1197600	6,7565	1273200	7,885	1348800	8,43
972000	3,699	1047600	3,579	1123200	2,0945	1198800	6,8985	1274400	8,43	1350000	7,3255
973200	4,0555	1048800	3,4405	1124400	1,913	1200000	6,964	1275600	8,87	1351200	8,38
974400	4,672	1050000	2,31	1125600	1,644	1201200	7,945	1276800	7,72	1352400	7,3205
975600	4,8355	1051200	1,309	1126800	2,1565	1202400	7,045	1278000	6,323	1353600	6,609
976800	4,1615	1052400	0,8015	1128000	1,916	1203600	7,37	1279200	6,1875	1354800	6,064
978000	5,977	1053600	1,0665	1129200	1,3625	1204800	6,8535	1280400	5,773	1356000	5,92
979200	6,088	1054800	1,229	1130400	1,024	1206000	6,966	1281600	5,479	1357200	5,8685
980400	6,201	1056000	1,0385	1131600	1,4525	1207200	6,963	1282800	4,876	1358400	6,4145
981600	6,106	1057200	1,006	1132800	1,29	1208400	7,29	1284000	4,6795	1359600	5,237

Set 2 - 21st of April to 20th of May											
Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)
1360800	4,26	1436400	9,99	1512000	4,459	1587600	7,895	1663200	7,1755	1738800	0,8215
1362000	6,0035	1437600	11,01	1513200	5,782	1588800	7,3	1664400	7,3155	1740000	0,9845
1363200	4,806	1438800	9,23	1514400	6,917	1590000	7,93	1665600	7,745	1741200	1,547
1364400	4,172	1440000	9,155	1515600	6,863	1591200	8,38	1666800	7,8	1742400	2,436
1365600	3,827	1441200	9,515	1516800	7,223	1592400	6,9375	1668000	7,81	1743600	3,8705
1366800	5,451	1442400	9,56	1518000	6,421	1593600	7,75	1669200	7,425	1744800	3,967
1368000	4,904	1443600	8,71	1519200	7,47	1594800	6,8605	1670400	7,84	1746000	5,8235
1369200	3,675	1444800	9,335	1520400	7,247	1596000	7,205	1671600	7,2995	1747200	6,483
1370400	5,4285	1446000	9,935	1521600	6,5435	1597200	7,545	1672800	7,905	1748400	6,043
1371600	3,446	1447200	9,095	1522800	5,9135	1598400	7,5735	1674000	7,865	1749600	7,16
1372800	4,2255	1448400	8,555	1524000	6,5285	1599600	8,31	1675200	7,426	1750800	7,585
1374000	4,072	1449600	7,67	1525200	6,347	1600800	8,92	1676400	9,615	1752000	7,795
1375200	3,93	1450800	7,66	1526400	6,4355	1602000	8,79	1677600	7,98	1753200	6,0445
1376400	4,183	1452000	8,08	1527600	7,031	1603200	9,57	1678800	10,015	1754400	6,603
1377600	3,1685	1453200	7,975	1528800	7,2205	1604400	9,465	1680000	10,79	1755600	6,9815
1378800	2,091	1454400	8,12	1530000	7,875	1605600	8,785	1681200	9,025	1756800	7,54
1380000	2,656	1455600	8,575	1531200	7,127	1606800	10,135	1682400	8,66	1758000	6,0925
1381200	2,05	1456800	7,85	1532400	6,5125	1608000	7,865	1683600	9,52	1759200	7,1525
1382400	4,3185	1458000	7,735	1533600	6,919	1609200	9,545	1684800	8,36	1760400	7,0045
1383600	3,126	1459200	6,892	1534800	7,1045	1610400	9,27	1686000	8,01	1761600	8,4
1384800	1,4115	1460400	6,841	1536000	7,51	1611600	9,7	1687200	8,565	1762800	7,1105
1386000	1,354	1461600	8,18	1537200	7,299	1612800	8,93	1688400	8,275	1764000	7,1735
1387200	0,7855	1462800	7,116	1538400	7,21	1614000	7,63	1689600	8,025	1765200	6,718
1388400	1,6125	1464000	6,623	1539600	7,313	1615200	8,86	1690800	7,5315	1766400	5,932
1389600	2,5485	1465200	7,305	1540800	7,34	1616400	8,87	1692000	9,055	1767600	5,1875
1390800	2,616	1466400	6,032	1542000	6,4105	1617600	8,535	1693200	9,165	1768800	5,0115
1392000	2,7635	1467600	6,033	1543200	6,2605	1618800	8,57	1694400	8,875	1770000	5,302
1393200	3,8455	1468800	6,41	1544400	5,8915	1620000	7,525	1695600	8,625	1771200	5,5365
1394400	5,345	1470000	5,369	1545600	6,1725	1621200	8,415	1696800	9,11	1772400	5,8335
1395600	5,027	1471200	5,176	1546800	5,4455	1622400	8,535	1698000	9,28	1773600	5,679
1396800	4,586	1472400	5,0585	1548000	5,118	1623600	8,53	1699200	8,23	1774800	5,1575
1398000	4,7205	1473600	4,609	1549200	5,519	1624800	8,005	1700400	7,1315	1776000	4,6
1399200	5,1905	1474800	4,3895	1550400	5,217	1626000	7,56	1701600	7,4205	1777200	5,708
1400400	4,7985	1476000	5,1345	1551600	5,171	1627200	7,18	1702800	7,5	1778400	4,933
1401600	4,3435	1477200	4,6805	1552800	5,5405	1628400	6,638	1704000	8,145	1779600	4,685
1402800	3,8035	1478400	4,9475	1554000	5,675	1629600	6,679	1705200	5,745	1780800	5,7375
1404000	3,5085	1479600	4,514	1555200	6,0185	1630800	6,879	1706400	5,5875	1782000	4,5525
1405200	3,443	1480800	4,0095	1556400	5,467	1632000	6,3105	1707600	6,836	1783200	5,0185
1406400	2,902	1482000	4,8485	1557600	5,5145	1633200	6,8195	1708800	4,919	1784400	5,368
1407600	3,06	1483200	4,0395	1558800	5,851	1634400	6,0905	1710000	4,0275	1785600	4,553
1408800	3,671	1484400	3,343	1560000	5,9695	1635600	6,645	1711200	2,759	1786800	4,79
1410000	4,653	1485600	2,459	1561200	5,697	1636800	6,0675	1712400	4,0085	1788000	4,9615
1411200	4,2305	1486800	1,6995	1562400	6,074	1638000	6,646	1713600	3,6235	1789200	5,1945
1412400	4,774	1488000	1,6395	1563600	6,0585	1639200	6,62	1714800	2,2065	1790400	4,0095
1413600	4,7395	1489200	2,046	1564800	6,097	1640400	6,577	1716000	2,1495	1791600	5,169
1414800	4,2255	1490400	1,7995	1566000	4,6845	1641600	5,828	1717200	3,1425	1792800	4,0325
1416000	3,754	1491600	2,293	1567200	5,743	1642800	5,34	1718400	2,185	1794000	4,101
1417200	4,072	1492800	2,7145	1568400	5,659	1644000	5,108	1719600	2,4175	1795200	4,394
1418400	5,886	1494000	2,8115	1569600	5,218	1645200	4,075	1720800	3,7805	1796400	4,679
1419600	7,575	1495200	4,5285	1570800	5,6025	1646400	3,934	1722000	3,7175	1797600	4,24
1420800	7,48	1496400	4,6135	1572000	5,0275	1647600	4,301	1723200	2,694	1798800	3,529
1422000	7,3	1497600	3,783	1573200	5,472	1648800	4,0185	1724400	1,129	1800000	2,696
1423200	7,725	1498800	3,718	1574400	5,267	1650000	3,681	1725600	0,595	1801200	1,3365
1424400	7,92	1500000	2,5475	1575600	5,184	1651200	3,6525	1726800	0,651	1802400	0,855
1425600	8,31	1501200	1,8685	1576800	6,061	1652400	2,809	1728000	0,7115	1803600	1,0375
1426800	8,36	1502400	2,4485	1578000	6,929	1653600	3,2645	1729200	1,201	1804800	1,41
1428000	9,58	1503600	2,905	1579200	7,036	1654800	3,955	1730400	1,2135	1806000	1,4365
1429200	9,795	1504800	2,2745	1580400	7,48	1656000	4,02	1731600	0,977	1807200	0,731
1430400	9,55	1506000	2,4665	1581600	7,785	1657200	4,653	1732800	1,4555	1808400	0,3515
1431600	10,63	1507200	3,375	1582800	8	1658400	4,8095	1734000	1,239	1809600	0,7965
1432800	11,57	1508400	3,9205	1584000	7,529	1659600	5,5775	1735200	0,793	1810800	0,5525
1434000	10,675	1509600	3,925	1585200	7,67	1660800	5,493	1736400	0,2855	1812000	0,3135
1435200	10,63	1510800	4,43	1586400	8,045	1662000	5,7975	1737600	0,8755	1813200	0,385

Set 2 - 21st of April to 20th of May											
Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)
1814400	0,57	1890000	0,677	1965600	2,3015	2041200	3,8665	2116800	6,438	2192400	5,6045
1815600	0,453	1891200	0,49	1966800	2,391	2042400	4,099	2118000	6,3485	2193600	5,886
1816800	1,2885	1892400	0,99	1968000	1,3325	2043600	6,3655	2119200	6,68	2194800	5,832
1818000	0,863	1893600	1,366	1969200	2,7955	2044800	3,6905	2120400	6,1705	2196000	5,1855
1819200	0,6005	1894800	1,05	1970400	2,6935	2046000	4,028	2121600	5,926	2197200	5,582
1820400	0,3305	1896000	1,5405	1971600	2,4705	2047200	3,6875	2122800	5,3405	2198400	6,642
1821600	0,585	1897200	1,8525	1972800	2,316	2048400	3,0415	2124000	5,754	2199600	6,0895
1822800	0,399	1898400	2,9205	1974000	1,8625	2049600	4,729	2125200	5,5875	2200800	5,7825
1824000	0,4975	1899600	3,7925	1975200	1,731	2050800	3,915	2126400	6,1615	2202000	6,6735
1825200	0,4495	1900800	3,948	1976400	1,445	2052000	3,939	2127600	5,129	2203200	6,1875
1826400	0,3035	1902000	3,8615	1977600	1,198	2053200	3,9745	2128800	4,95	2204400	5,96
1827600	0,483	1903200	3,4085	1978800	1,1845	2054400	3,58	2130000	5,4025	2205600	4,9045
1828800	0,346	1904400	3,359	1980000	1,399	2055600	2,7855	2131200	3,9885	2206800	4,393
1830000	0,7165	1905600	4,262	1981200	1,494	2056800	2,919	2132400	5,223	2208000	5,391
1831200	0,8925	1906800	5,066	1982400	1,5115	2058000	2,221	2133600	5,5035	2209200	4,789
1832400	0,594	1908000	3,304	1983600	1,548	2059200	2,3325	2134800	5,7775	2210400	5,3385
1833600	0,76	1909200	3,2045	1984800	1,7065	2060400	2,2955	2136000	5,7045	2211600	4,082
1834800	0,834	1910400	3,3755	1986000	1,6785	2061600	2,6585	2137200	3,812	2212800	4,4165
1836000	0,398	1911600	2,9725	1987200	2,0105	2062800	2,9945	2138400	4,014	2214000	4,3015
1837200	0,3185	1912800	3,076	1988400	2,532	2064000	3,3425	2139600	4,4555	2215200	3,6975
1838400	0,7855	1914000	2,5485	1989600	2,29	2065200	3,4055	2140800	4,4175	2216400	5,0235
1839600	2,0305	1915200	2,007	1990800	2,252	2066400	3,606	2142000	2,7185	2217600	4,876
1840800	2,3715	1916400	1,5095	1992000	2,793	2067600	3,6895	2143200	3,972	2218800	4,703
1842000	1,8575	1917600	2,0165	1993200	3,0975	2068800	2,8805	2144400	3,6215	2220000	5,74
1843200	2,126	1918800	2,2225	1994400	3,13	2070000	2,8185	2145600	3,104	2221200	5,792
1844400	0,954	1920000	2,035	1995600	2,8635	2071200	3,102	2146800	3,646	2222400	4,8965
1845600	1,4865	1921200	2,4535	1996800	2,5165	2072400	2,856	2148000	3,4715	2223600	4,4805
1846800	1,56	1922400	2,5875	1998000	2,6085	2073600	3,039	2149200	2,7515	2224800	5,1205
1848000	1,181	1923600	3,6	1999200	3,0415	2074800	3,454	2150400	2,6995	2226000	4,5445
1849200	2,762	1924800	3,3715	2000400	3,105	2076000	2,8635	2151600	3,1235	2227200	4,981
1850400	3,564	1926000	4,5235	2001600	2,9485	2077200	2,4665	2152800	3,414	2228400	5,2265
1851600	3,83	1927200	5,1845	2002800	2,857	2078400	1,9	2154000	3,5865	2229600	4,8075
1852800	2,914	1928400	5,41	2004000	3,262	2079600	1,6955	2155200	3,8325	2230800	4,44
1854000	2,4695	1929600	4,643	2005200	3,6965	2080800	1,695	2156400	3,9445	2232000	3,763
1855200	2,048	1930800	4,8075	2006400	3,4495	2082000	2,007	2157600	4,1875	2233200	4,8345
1856400	2,371	1932000	4,014	2007600	2,638	2083200	2,204	2158800	3,2275	2234400	4,6275
1857600	2,751	1933200	3,9025	2008800	2,347	2084400	2,1625	2160000	2,086	2235600	4,051
1858800	3,341	1934400	4,557	2010000	2,8215	2085600	1,707	2161200	1,363	2236800	3,5255
1860000	3,785	1935600	4,5385	2011200	3,99	2086800	1,982	2162400	1,8315	2238000	3,6515
1861200	5,065	1936800	4,4935	2012400	4,251	2088000	2,067	2163600	0,876	2239200	4,037
1862400	2,6465	1938000	4,6265	2013600	4,7095	2089200	1,599	2164800	0,2675	2240400	3,5025
1863600	2,4475	1939200	4,067	2014800	5,337	2090400	1,106	2166000	2,427	2241600	3,43
1864800	2,5185	1940400	3,71	2016000	5,1615	2091600	1,6055	2167200	3,6115	2242800	3,2225
1866000	2,881	1941600	4,309	2017200	5,027	2092800	3,0285	2168400	2,79	2244000	2,777
1867200	2,9915	1942800	3,2755	2018400	3,535	2094000	3,439	2169600	2,5675	2245200	2,981
1868400	3,659	1944000	3,255	2019600	4,987	2095200	3,7425	2170800	3,4325	2246400	2,708
1869600	2,8165	1945200	3,4565	2020800	5,4405	2096400	3,878	2172000	3,389	2247600	3,099
1870800	2,788	1946400	2,9915	2022000	5,166	2097600	2,981	2173200	3,1045	2248800	3,538
1872000	3,543	1947600	2,8135	2023200	6,6955	2098800	4,1225	2174400	3,8015	2250000	3,3095
1873200	4,0775	1948800	3,1305	2024400	6,29	2100000	6,332	2175600	4,984	2251200	2,125
1874400	5,758	1950000	3,2385	2025600	5,3525	2101200	6,6505	2176800	4,925	2252400	2,5565
1875600	5,193	1951200	3,7975	2026800	5,015	2102400	6,2225	2178000	4,736	2253600	2,044
1876800	5,597	1952400	3,384	2028000	2,9685	2103600	5,5875	2179200	4,891	2254800	2,8265
1878000	5,029	1953600	2,8805	2029200	3,57	2104800	5,238	2180400	4,04	2256000	3,1605
1879200	5,4895	1954800	2,598	2030400	5,137	2106000	4,486	2181600	4,1695	2257200	3,854
1880400	5,3465	1956000	2,333	2031600	3,9415	2107200	4,8405	2182800	3,8515	2258400	3,714
1881600	4,6425	1957200	2,743	2032800	2,991	2108400	5,29	2184000	5,265	2259600	3,4025
1882800	3,622	1958400	2,0425	2034000	3,108	2109600	6,01	2185200	5,221	2260800	3,125
1884000	3,179	1959600	1,684	2035200	4,2405	2110800	6,2355	2186400	5,481	2262000	4,217
1885200	3,3365	1960800	1,342	2036400	5,1715	2112000	6,741	2187600	5,205	2263200	3,0305
1886400	3,145	1962000	1,3035	2037600	4,795	2113200	6,09	2188800	4,585	2264400	2,7845
1887600	3,418	1963200	2,023	2038800	5,035	2114400	5,238	2190000	5,918	2265600	3,813
1888800	1	1964400	2,0575	2040000	4,591	2115600	6,222	2191200	5,361	2266800	4,279

Set 2 - 21st of April to 20th of May									
Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)
2268000	4,174	2E+06	1,6275	2419200	3,257	2494800	1,681	2570400	4,5865
2269200	5,037	2E+06	2,009	2420400	2,638	2496000	1,7975	2571600	4,3055
2270400	4,615	2E+06	2,376	2421600	2,548	2497200	2,4855	2572800	4,6205
2271600	3,823	2E+06	2,8715	2422800	2,5825	2498400	2,8435	2574000	3,5575
2272800	3,983	2E+06	2,992	2424000	2,178	2499600	3,5225	2575200	2,948
2274000	4,4665	2E+06	3,0355	2425200	1,6315	2500800	2,8695	2576400	4,009
2275200	4,0245	2E+06	3,117	2426400	2,1555	2502000	1,903	2577600	4,64
2276400	3,516	2E+06	3,04	2427600	1,575	2503200	2,294	2578800	4,5775
2277600	3,425	2E+06	2,417	2428800	1,5445	2504400	3,282	2580000	4,661
2278800	3,979	2E+06	3,5425	2430000	1,955	2505600	2,989	2581200	4,4845
2280000	4,004	2E+06	2,646	2431200	2,268	2506800	1,85	2582400	3,819
2281200	4,107	2E+06	2,7895	2432400	2,379	2508000	1,468	2583600	4,0815
2282400	3,873	2E+06	2,891	2433600	2,285	2509200	0,8935	2584800	4,1635
2283600	3,838	2E+06	2,477	2434800	2,8895	2510400	1,184	2586000	4,3505
2284800	3,339	2E+06	3,1445	2436000	3,841	2511600	0,9775	2587200	3,995
2286000	4,116	2E+06	2,8925	2437200	3,418	2512800	0,727	2588400	4,0285
2287200	4,2895	2E+06	2,7755	2438400	3,4085	2514000	1,393		
2288400	3,9075	2E+06	2,928	2439600	2,6495	2515200	0,8965		
2289600	3,261	2E+06	3,041	2440800	2,336	2516400	1,8035		
2290800	4,0715	2E+06	2,9795	2442000	2,3015	2517600	1,4655		
2292000	3,568	2E+06	2,374	2443200	2,8185	2518800	0,968		
2293200	4,052	2E+06	2,254	2444400	3,877	2520000	1,1265		
2294400	3,45	2E+06	2,8035	2445600	3,2995	2521200	1,173		
2295600	4,305	2E+06	2,3385	2446800	2,384	2522400	1,106		
2296800	4,1635	2E+06	2,3375	2448000	3,39	2523600	1,5055		
2298000	3,1925	2E+06	1,961	2449200	3,904	2524800	1,15		
2299200	4,763	2E+06	1,7095	2450400	3,871	2526000	0,6295		
2300400	3,9075	2E+06	1,5355	2451600	3,812	2527200	1,074		
2301600	4,5395	2E+06	1,4585	2452800	3,909	2528400	0,89		
2302800	3,665	2E+06	1,2115	2454000	5,4775	2529600	1,082		
2304000	4,4395	2E+06	1,332	2455200	6,233	2530800	1,2875		
2305200	4,818	2E+06	1,002	2456400	5,889	2532000	0,975		
2306400	4,507	2E+06	1,3725	2457600	5,8145	2533200	0,6925		
2307600	3,7	2E+06	2,6405	2458800	5,411	2534400	0,927		
2308800	3,6255	2E+06	1,831	2460000	4,4575	2535600	0,667		
2310000	4,5455	2E+06	1,2595	2461200	4,943	2536800	1,198		
2311200	4,218	2E+06	1,573	2462400	4,468	2538000	2,676		
2312400	4,3315	2E+06	2,3055	2463600	4,712	2539200	4,4665		
2313600	3,9265	2E+06	1,9605	2464800	4,9305	2540400	3,504		
2314800	3,972	2E+06	0,887	2466000	4,174	2541600	2,818		
2316000	4,08	2E+06	1,4695	2467200	4,1045	2542800	3,9295		
2317200	4,6235	2E+06	3,2135	2468400	4,1865	2544000	3,841		
2318400	4,8795	2E+06	3,8665	2469600	5,317	2545200	1,0225		
2319600	4,963	2E+06	3,384	2470800	6,0635	2546400	0,083		
2320800	5,132	2E+06	4,095	2472000	5,407	2547600	2,4415		
2322000	4,664	2E+06	4,854	2473200	5,5755	2548800	2,5795		
2323200	4,9935	2E+06	5,3375	2474400	6,637	2550000	2,357		
2324400	4,39	2E+06	4,536	2475600	4,582	2551200	2,383		
2325600	3,85	2E+06	2,8945	2476800	5,331	2552400	2,0465		
2326800	3,8	2E+06	2,6385	2478000	5,129	2553600	2,457		
2328000	3,276	2E+06	1,676	2479200	4,7045	2554800	1,8495		
2329200	3,1775	2E+06	1,3135	2480400	4,6025	2556000	2,237		
2330400	2,0085	2E+06	1,1415	2481600	4,5155	2557200	2,0635		
2331600	1,748	2E+06	1,2895	2482800	4,116	2558400	3,6		
2332800	1,817	2E+06	1,505	2484000	4,375	2559600	5,027		
2334000	0,8855	2E+06	1,2145	2485200	4,6535	2560800	5,2905		
2335200	0,794	2E+06	1,76	2486400	3,587	2562000	5,665		
2336400	0,355	2E+06	1,7675	2487600	3,0665	2563200	5,302		
2337600	0,458	2E+06	1,6185	2488800	2,9075	2564400	4,0665		
2338800	0,4985	2E+06	0,943	2490000	3,0105	2565600	4,18		
2340000	1,3615	2E+06	2,3895	2491200	2,368	2566800	3,522		
2341200	1,5675	2E+06	2,755	2492400	2,0185	2568000	4,4845		
2342400	1,2855	2E+06	2,7425	2493600	1,922	2569200	4,3055		

Set 3 - 21st of May to 20th of June											
Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)
0	4,1005	75600	0,96	151200	4,6225	226800	6,346	302400	7,245	378000	1,887
1200	4,198	76800	0,575	152400	3,8095	228000	6,0105	303600	5,5095	379200	2,609
2400	4,077	78000	1,5655	153600	3,5195	229200	6,707	304800	5,816	380400	2,4805
3600	4,6885	79200	1,64	154800	3,8675	230400	7,209	306000	6,4055	381600	2,5105
4800	4,69	80400	1,8315	156000	3,9985	231600	6,69	307200	5,04	382800	3,431
6000	4,7035	81600	2,3215	157200	3,7075	232800	7,175	308400	4,8795	384000	3,378
7200	4,7865	82800	1,8105	158400	3,913	234000	7,555	309600	5,315	385200	3,603
8400	4,99792	84000	1,6645	159600	4,1265	235200	6,4885	310800	4,734	386400	4,3005
9600	4,844	85200	1,7065	160800	4,051	236400	6,6615	312000	5,0225	387600	5,1475
10800	5,447	86400	2,417	162000	2,7335	237600	5,763	313200	5,492	388800	4,9695
12000	5,1255	87600	2,6105	163200	1,9685	238800	5,746	314400	5,3785	390000	5,0925
13200	6,091	88800	2,359	164400	1,049	240000	4,319	315600	5,977	391200	5,058
14400	5,6	90000	2,4695	165600	1,214	241200	4,4915	316800	5,8555	392400	5,1765
15600	5,2075	91200	2,619	166800	2,3075	242400	4,4995	318000	4,71	393600	5,389
16800	5,3565	92400	3,3065	168000	2,393	243600	2,602	319200	4,884	394800	4,092
18000	5,047	93600	4,0915	169200	0,8775	244800	3,4775	320400	5,1735	396000	5,019
19200	5,4415	94800	4,404	170400	0,5605	246000	3,111	321600	5,2705	397200	5,2795
20400	5,8545	96000	3,409	171600	0,968	247200	3,309	322800	4,3485	398400	5,0515
21600	5,051	97200	2,849	172800	0,416	248400	3,703	324000	3,375	399600	5,5175
22800	5,099	98400	3,447	174000	0,5075	249600	2,244	325200	4,044	400800	5,9865
24000	3,994	99600	3,899	175200	0,6415	250800	2,229	326400	4,1065	402000	5,7325
25200	5,0955	100800	2,9265	176400	0,6785	252000	2,233	327600	3,8465	403200	5,1655
26400	5,5615	102000	1,0275	177600	0,897	253200	2,736	328800	4,213	404400	4,8
27600	5,4435	103200	1,9995	178800	1,056	254400	3,359	330000	4,6405	405600	4,878
28800	6,7435	104400	1,434	180000	1,8445	255600	2,892	331200	4,067	406800	4,595
30000	6,4445	105600	0,7325	181200	2,132	256800	3,27	332400	4,0595	408000	3,834
31200	5,693	106800	0,8755	182400	2,942	258000	3,5115	333600	3,474	409200	3,6335
32400	7,1175	108000	1,673	183600	4,409	259200	2,9275	334800	2,6605	410400	3,918
33600	7,92	109200	2,5085	184800	4,6045	260400	2,1255	336000	2,781	411600	3,688
34800	7,77	110400	2,014	186000	3,955	261600	2,138	337200	2,632	412800	5,068
36000	7,925	111600	2,057	187200	3,268	262800	2,016	338400	3,004	414000	4,9895
37200	7,84	112800	2,7885	188400	3,083	264000	1,907	339600	3,054	415200	4,676
38400	8,175	114000	3,0965	189600	2,8115	265200	3,123	340800	3,039	416400	3,8185
39600	7,013	115200	2,993	190800	2,217	266400	3,209	342000	3,175	417600	4,1305
40800	7,425	116400	2,465	192000	1,3425	267600	2,824	343200	3,334	418800	3,9415
42000	6,7945	117600	2,0595	193200	0,6505	268800	3,0015	344400	3,078	420000	3,3145
43200	6,5825	118800	1,9215	194400	0,8215	270000	3,3815	345600	1,3305	421200	3,4675
44400	5,711	120000	1,3975	195600	0,528	271200	3,1795	346800	1,956	422400	3,241
45600	5,7395	121200	1,2805	196800	1,333	272400	3,643	348000	2,727	423600	3,328
46800	5,2565	122400	1,133	198000	1,0115	273600	3,3685	349200	2,771	424800	3,3865
48000	5,645	123600	1,744	199200	0,9845	274800	3,215	350400	2,7315	426000	2,458
49200	5,066	124800	1,314	200400	1,903	276000	2,5875	351600	2,34	427200	2,6655
50400	5,369	126000	1,69	201600	2,7255	277200	2,0665	352800	2,156	428400	3,007
51600	5,5165	127200	2,232	202800	1,78	278400	2,109	354000	1,389	429600	2,3965
52800	5,252	128400	2,7675	204000	2,528	279600	2,4965	355200	1,3545	430800	1,987
54000	5,7905	129600	2,4465	205200	2,7235	280800	3,142	356400	1,906	432000	1,5245
55200	4,395	130800	1,82	206400	2,8575	282000	2,4895	357600	1,7335	433200	3,4225
56400	4,38	132000	1,6225	207600	2,6355	283200	2,3155	358800	1,136	434400	3,1495
57600	5,6105	133200	2,8675	208800	3,0975	284400	4,315	360000	0,863	435600	3,2335
58800	4,9275	134400	3,131	210000	4,1055	285600	3,266	361200	0,8885	436800	3,763
60000	4,797	135600	3,937	211200	3,4055	286800	3,325	362400	0,721	438000	3,462
61200	4,1985	136800	5,323	212400	4,571	288000	2,4305	363600	0,943	439200	3,2375
62400	3,9205	138000	6,7275	213600	4,8635	289200	3,117	364800	0,967	440400	3,217
63600	3,995	139200	6,2605	214800	5,2475	290400	4,239	366000	0,9915	441600	2,5735
64800	2,91	140400	6,01	216000	5,1895	291600	4,057	367200	0,9905	442800	2,341
66000	2,388	141600	4,7735	217200	5,1065	292800	4,076	368400	1,188	444000	2,3825
67200	2,724	142800	4,979	218400	5,1495	294000	4,473	369600	0,5975	445200	2,462
68400	2,504	144000	5,087	219600	5,438	295200	5,207	370800	0,655	446400	1,663
69600	2,0645	145200	5,088	220800	5,535	296400	5,4725	372000	0,6385	447600	2,2045
70800	1,1775	146400	5,009	222000	5,832	297600	5,8815	373200	0,811	448800	3,0235
72000	0,5655	147600	4,051	223200	6,323	298800	6,877	374400	0,7765	450000	3,022
73200	0,6965	148800	3,759	224400	6,22	300000	6,231	375600	0,789	451200	3,0315
74400	0,8575	150000	3,637	225600	5,896	301200	6,3315	376800	0,963	452400	4,126

Set 3 - 21st of May to 20th of June											
Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)
453600	4,0255	529200	8,32	604800	6,813	680400	1,546	756000	4,15	831600	5,7195
454800	3,4145	530400	9,275	606000	5,435	681600	2,7835	757200	3,6305	832800	5,076
456000	3,7205	531600	8,375	607200	4,274	682800	2,379	758400	3,165	834000	4,216
457200	3,473	532800	10,78	608400	5,4235	684000	1,4165	759600	3,256	835200	4,12
458400	3,0545	534000	11,91	609600	4,3245	685200	1,964	760800	2,927	836400	3,537
459600	3,542	535200	10,605	610800	2,922	686400	1,7335	762000	2,0255	837600	2,763
460800	4,6255	536400	11,035	612000	3,3715	687600	3,1305	763200	1,388	838800	3,0215
462000	5,2545	537600	11,15	613200	5,262	688800	3,4405	764400	1,6725	840000	5,014
463200	4,1855	538800	11,9	614400	4,239	690000	2,8155	765600	0,974	841200	5,103
464400	5,364	540000	11,5	615600	6,01	691200	2,799	766800	0,4665	842400	3,868
465600	4,8935	541200	10,475	616800	7,945	692400	3,111	768000	0,3785	843600	4,1955
466800	5,1755	542400	12,365	618000	6,836	693600	3,2695	769200	0,434	844800	3,982
468000	5,2405	543600	10,63	619200	7,765	694800	4,3955	770400	0,434	846000	3,247
469200	5,8855	544800	10,58	620400	6,257	696000	3,55	771600	0,363	847200	2,658
470400	5,7185	546000	10,02	621600	6,6585	697200	4,0515	772800	0,455	848400	2,748
471600	5,398	547200	9,26	622800	7,018	698400	3,952	774000	0,4905	849600	2,101
472800	4,217	548400	9,625	624000	8,06	699600	3,548	775200	0,3835	850800	2,2215
474000	5,706	549600	9,045	625200	8,4	700800	2,942	776400	1,2045	852000	2,071
475200	4,4435	550800	10,75	626400	8,36	702000	2,1775	777600	1,427	853200	1,7985
476400	3,2265	552000	9,925	627600	8,715	703200	1,7775	778800	1,6005	854400	1,3035
477600	1,418	553200	8,645	628800	7,86	704400	0,812	780000	1,5855	855600	0,713
478800	2,2125	554400	9,4	630000	7,94	705600	1,1255	781200	2,299	856800	1,1545
480000	2,23	555600	9,62	631200	8,705	706800	0,9325	782400	2,6055	858000	1,4525
481200	2,712	556800	8,705	632400	8,37	708000	0,4105	783600	2,4415	859200	1,5145
482400	2,4925	558000	8,975	633600	8,29	709200	0,696	784800	2,5545	860400	1,9725
483600	2,4365	559200	8,445	634800	6,1555	710400	0,7885	786000	2,465	861600	2,1805
484800	2,772	560400	11,16	636000	4,0275	711600	2,305	787200	3,0585	862800	1,358
486000	1,635	561600	11,58	637200	5,0675	712800	3,0605	788400	3,011	864000	1,724
487200	2,6325	562800	11,315	638400	4,0935	714000	2,9035	789600	3,068	865200	2,1225
488400	3,5815	564000	9,74	639600	4,774	715200	2,6955	790800	3,234	866400	2,498
489600	3,354	565200	8,85	640800	4,9275	716400	3,3775	792000	3,0565	867600	2,5885
490800	2,8795	566400	10,54	642000	6,1115	717600	2,938	793200	3,052	868800	2,898
492000	3,472	567600	9,445	643200	9,83	718800	2,377	794400	3,2745	870000	2,5045
493200	2,25	568800	9,995	644400	7,5065	720000	2,1035	795600	3,075	871200	2,802
494400	3,1685	570000	8,94	645600	4,218	721200	1,1275	796800	2,47	872400	2,96
495600	2,1765	571200	8,585	646800	3,8705	722400	1,0365	798000	2,854	873600	2,9105
496800	2,719	572400	8,73	648000	3,755	723600	2,211	799200	2,453	874800	3,0605
498000	2,944	573600	9,265	649200	4,7615	724800	2,228	800400	2,297	876000	2,848
499200	3,1475	574800	9,63	650400	6,257	726000	3,2385	801600	1,8275	877200	3,014
500400	2,685	576000	9,065	651600	3,5235	727200	3,1505	802800	1,7565	878400	3,2235
501600	2,218	577200	8,905	652800	4,124	728400	3,197	804000	1,487	879600	2,756
502800	1,832	578400	8,305	654000	4,8545	729600	3,4015	805200	0,8925	880800	2,1425
504000	1,9455	579600	8,17	655200	7,163	730800	3,6355	806400	0,57	882000	1,648
505200	1,962	580800	8,955	656400	5,2805	732000	3,5785	807600	0,857	883200	1,835
506400	1,621	582000	7,6155	657600	6,0835	733200	3,808	808800	1,602	884400	1,419
507600	2,025	583200	9,195	658800	6,4375	734400	4,086	810000	2,267	885600	1,475
508800	2,4795	584400	8,58	660000	5,7135	735600	4,0525	811200	2,6315	886800	0,9795
510000	3,7125	585600	9,09	661200	6,4945	736800	4,39	812400	3,251	888000	0,782
511200	5,4995	586800	9,125	662400	5,983	738000	4,7265	813600	3,569	889200	1,451
512400	9,125	588000	8,62	663600	7,648	739200	4,8855	814800	3,538	890400	1,866
513600	8,39	589200	8,135	664800	8,58	740400	4,5075	816000	3,438	891600	2,0955
514800	7,875	590400	8,695	666000	8,855	741600	4,3235	817200	3,222	892800	2,7675
516000	7,101	591600	8,465	667200	8,555	742800	4,7605	818400	3,2335	894000	3,1865
517200	8,6	592800	8,75	668400	7,785	744000	4,818	819600	3,2195	895200	2,7155
518400	8,31	594000	8,805	669600	6,2415	745200	4,624	820800	4,1125	896400	3,648
519600	7,765	595200	8,62	670800	6,8735	746400	4,085	822000	4,3645	897600	4,2635
520800	7,06	596400	8,1915	672000	4,8285	747600	3,384	823200	4,6805	898800	4,0285
522000	7,48	597600	8,56	673200	4,8795	748800	3,0025	824400	4,1065	900000	3,6325
523200	9,22	598800	8,2	674400	4,729	750000	3,117	825600	4,1435	901200	3,8075
524400	9,345	600000	7,7	675600	5,1335	751200	4,017	826800	4,2035	902400	4,002
525600	9	601200	6,7165	676800	3,196	752400	4,4985	828000	4,276	903600	4,264
526800	9,195	602400	7,19	678000	2,4655	753600	4,7075	829200	4,1155	904800	4,06
528000	8,68	603600	6,8905	679200	1,625	754800	4,5115	830400	4,568	906000	4,155

Set 3 - 21st of May to 20th of June											
Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)
907200	4,698	982800	1,0605	1058400	3,537	1134000	5,643	1209600	4,475	1285200	3,1025
908400	4,851	984000	1,921	1059600	3,145	1135200	4,8215	1210800	3,1005	1286400	4,058
909600	4,3465	985200	2,35	1060800	3,9725	1136400	5,4025	1212000	2,5075	1287600	3,788
910800	4,028	986400	2,7245	1062000	4,192	1137600	4,9575	1213200	1,6865	1288800	3,0035
912000	4,0485	987600	3,006	1063200	6,37	1138800	5,093	1214400	1,3965	1290000	3,3075
913200	4,272	988800	3,083	1064400	6,795	1140000	5,341	1215600	1,5595	1291200	4,554
914400	4,7135	990000	3,2325	1065600	7,605	1141200	6,4735	1216800	2,936	1292400	3,7485
915600	5,384	991200	2,964	1066800	7,555	1142400	6,6135	1218000	2,3495	1293600	3,2215
916800	5,113	992400	3,2575	1068000	8,91	1143600	7,0325	1219200	2,482	1294800	3,289
918000	5,053	993600	3,247	1069200	9,715	1144800	6,89	1220400	3,1785	1296000	2,7285
919200	4,4625	994800	3,244	1070400	9,985	1146000	7,23	1221600	4,328	1297200	3,3685
920400	4,356	996000	3,551	1071600	9,36	1147200	9,21	1222800	4,204	1298400	3,133
921600	4,2105	997200	3,615	1072800	11,2	1148400	7,925	1224000	2,928	1299600	2,9505
922800	3,8605	998400	4,064	1074000	10,175	1149600	7,505	1225200	2,8765	1300800	2,7895
924000	3,9	999600	4,093	1075200	9,975	1150800	8,85	1226400	3,899	1302000	2,565
925200	3,847	1000800	4,2	1076400	8,393	1152000	8,95	1227600	4,333	1303200	1,7025
926400	3,651	1002000	4,4225	1077600	10,215	1153200	7,762	1228800	3,935	1304400	0,983
927600	3,977	1003200	4,271	1078800	8,76	1154400	7,3795	1230000	4,886	1305600	0,6725
928800	4,0465	1004400	4,243	1080000	8,275	1155600	6,585	1231200	5,83	1306800	0,551
930000	4,5655	1005600	4,1055	1081200	8,095	1156800	6,7125	1232400	6,6365	1308000	1,0915
931200	4,5265	1006800	4,7965	1082400	7,245	1158000	6,909	1233600	5,567	1309200	3,566
932400	3,9125	1008000	4,577	1083600	6,596	1159200	6,902	1234800	5,524	1310400	2,6685
933600	3,656	1009200	5,2325	1084800	6,1385	1160400	7,736	1236000	6,7175	1311600	2,4855
934800	3,0695	1010400	4,9959	1086000	5,6245	1161600	6,7825	1237200	6,734	1312800	2,9245
936000	2,892	1011600	4,4965	1087200	5,406	1162800	6,5385	1238400	7,677	1314000	3,361
937200	2,5115	1012800	4,7495	1088400	6,5705	1164000	5,633	1239600	5,571	1315200	2,4265
938400	2,1815	1014000	3,251	1089600	6,548	1165200	5,5745	1240800	6,416	1316400	2,4885
939600	2,0055	1015200	2,95	1090800	5,648	1166400	6,322	1242000	6,9205	1317600	2,6685
940800	2,373	1016400	2,9615	1092000	5,282	1167600	7,115	1243200	7,34	1318800	1,5785
942000	2,0085	1017600	2,573	1093200	5,753	1168800	7,815	1244400	6,5405	1320000	1,0615
943200	1,8515	1018800	2,4285	1094400	5,119	1170000	7,405	1245600	6,959	1321200	0,999
944400	1,1745	1020000	2,2305	1095600	4	1171200	5,4135	1246800	7,1065	1322400	1,556
945600	1,262	1021200	3,5935	1096800	4,3975	1172400	6,741	1248000	7,875	1323600	2,779
946800	0,7565	1022400	3,506	1098000	4,3775	1173600	6,989	1249200	7,4525	1324800	1,923
948000	0,3805	1023600	3,4775	1099200	4,2125	1174800	4,6265	1250400	7,33	1326000	2,7215
949200	1,137	1024800	2,126	1100400	2,9145	1176000	5,702	1251600	7,2915	1327200	2,7135
950400	1,367	1026000	1,6695	1101600	2,2465	1177200	4,2685	1252800	5,7725	1328400	3,2495
951600	1,5895	1027200	2,4835	1102800	1,8785	1178400	6,14	1254000	6,629	1329600	3,038
952800	2,301	1028400	2,295	1104000	1,6115	1179600	5,3735	1255200	6,654	1330800	3,3225
954000	2,104	1029600	1,725	1105200	2,1	1180800	4,7825	1256400	6,5295	1332000	3,122
955200	2,045	1030800	1,0625	1106400	1,343	1182000	5,582	1257600	5,3805	1333200	2,2705
956400	1,993	1032000	0,8815	1107600	1,579	1183200	4,712	1258800	4,605	1334400	3,12
957600	2,6245	1033200	0,992	1108800	1,514	1184400	5,5925	1260000	4,1145	1335600	4,088
958800	2,8095	1034400	0,351	1110000	1,2365	1185600	6,525	1261200	4,347	1336800	5,869
960000	2,1755	1035600	0,247	1111200	1,273	1186800	4,717	1262400	5,958	1338000	3,1295
961200	2,4535	1036800	0,563	1112400	2,282	1188000	4,408	1263600	5,811	1339200	4,7505
962400	2,5375	1038000	0,46	1113600	2,691	1189200	3,8105	1264800	5,25	1340400	2,502
963600	2,295	1039200	0,9805	1114800	1,491	1190400	7,0925	1266000	4,484	1341600	2,389
964800	2,431	1040400	1,1125	1116000	1,0095	1191600	4,8685	1267200	5,982	1342800	4,286
966000	2,538	1041600	0,601	1117200	1,8065	1192800	2,858	1268400	2,52	1344000	2,8665
967200	2,048	1042800	1,512	1118400	2,977	1194000	2,5	1269600	3,254	1345200	2,883
968400	2,0815	1044000	0,6175	1119600	3,197	1195200	2,216	1270800	5,865	1346400	1,9465
969600	1,9355	1045200	0,94	1120800	4,17	1196400	2,7155	1272000	6,759	1347600	1,942
970800	2,027	1046400	1,543	1122000	4,311	1197600	2,6575	1273200	6,0055	1348800	1,7445
972000	1,5395	1047600	1,017	1123200	3,7175	1198800	2,353	1274400	6,5295	1350000	0,9945
973200	0,795	1048800	1,1795	1124400	4,3155	1200000	2,4345	1275600	6,276	1351200	3,53
974400	0,9245	1050000	2,6445	1125600	4,5895	1201200	2,018	1276800	5,816	1352400	5,4275
975600	0,6855	1051200	1,6975	1126800	4,3975	1202400	2,9235	1278000	5,465	1353600	6,4305
976800	0,9775	1052400	1,3895	1128000	4,107	1203600	5,0145	1279200	5,336	1354800	5,6295
978000	1,3605	1053600	2,1795	1129200	3,7145	1204800	5,5185	1280400	4,51	1356000	5,5015
979200	1,907	1054800	1,4885	1130400	3,6255	1206000	4,8815	1281600	3,902	1357200	4,3095
980400	2,433	1056000	1,015	1131600	2,974	1207200	4,377	1282800	3,546	1358400	4,512
981600	1,897	1057200	1,537	1132800	4,2975	1208400	5,436	1284000	3,503	1359600	4,0365

Set 3 - 21st of May to 20th of June											
Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)
1360800	2,836	1436400	6,961	1512000	3,244	1587600	3,135	1663200	1,6195	1738800	2,325
1362000	1,4195	1437600	6,996	1513200	2,538	1588800	2,771	1664400	1,849	1740000	2,2185
1363200	2,666	1438800	7,49	1514400	1,45	1590000	3,9885	1665600	1,639	1741200	3,166
1364400	4,739	1440000	7,001	1515600	2,413	1591200	4,713	1666800	1,9095	1742400	2,6105
1365600	4,17	1441200	6,337	1516800	3,2085	1592400	3,6475	1668000	2,341	1743600	3,22
1366800	4,644	1442400	6,218	1518000	3,669	1593600	3,7855	1669200	2,155	1744800	3,402
1368000	4,2925	1443600	5,4605	1519200	2,05	1594800	3,516	1670400	2,0525	1746000	3,2475
1369200	2,9385	1444800	4,6915	1520400	1,232	1596000	3,8605	1671600	2,018	1747200	3,5705
1370400	1,019	1446000	5,4045	1521600	3,739	1597200	3,982	1672800	1,8385	1748400	3,918
1371600	3,3965	1447200	4,9005	1522800	4,8775	1598400	3,0795	1674000	1,665	1749600	3,147
1372800	2,88	1448400	4,0915	1524000	3,205	1599600	3,1085	1675200	2,2245	1750800	4,095
1374000	2,6	1449600	3,5805	1525200	3,6645	1600800	3,6695	1676400	1,6015	1752000	4,7995
1375200	1,8135	1450800	3,4845	1526400	2,091	1602000	3,377	1677600	2,327	1753200	4,976
1376400	1,2795	1452000	3,25	1527600	1,1935	1603200	4,2115	1678800	3,743	1754400	5,294
1377600	1,42	1453200	3,3425	1528800	2,78	1604400	2,605	1680000	4,225	1755600	5,5435
1378800	1,4975	1454400	3,407	1530000	2,468	1605600	2,994	1681200	3,4825	1756800	4,881
1380000	2,21	1455600	2,862	1531200	3,0085	1606800	3,5095	1682400	2,975	1758000	3,396
1381200	1,077	1456800	2,0635	1532400	3,644	1608000	2,912	1683600	3,186	1759200	4,2735
1382400	1,815	1458000	2,1165	1533600	4,193	1609200	1,8655	1684800	2,783	1760400	5,1645
1383600	1,289	1459200	2,187	1534800	3,8185	1610400	2,3455	1686000	2,8645	1761600	5,2965
1384800	0,925	1460400	2,936	1536000	3,1595	1611600	2,53	1687200	2,1795	1762800	5,181
1386000	0,5025	1461600	3,384	1537200	4,4385	1612800	2,438	1688400	1,5355	1764000	4,758
1387200	0,625	1462800	2,9645	1538400	1,5765	1614000	2,5635	1689600	1,526	1765200	4,931
1388400	1,7075	1464000	2,13	1539600	2,994	1615200	1,4605	1690800	0,7445	1766400	5,2935
1389600	2,4125	1465200	3,014	1540800	4,2965	1616400	2,2565	1692000	0,7105	1767600	4,692
1390800	2,446	1466400	0,6135	1542000	2,5175	1617600	4,8015	1693200	1,627	1768800	4,9215
1392000	2,159	1467600	1,2515	1543200	2,6135	1618800	3,8505	1694400	2,1265	1770000	4,796
1393200	2,4085	1468800	1,69	1544400	1,7435	1620000	3,774	1695600	1,556	1771200	4,8865
1394400	3,1465	1470000	0,9995	1545600	2,024	1621200	2,295	1696800	2,2115	1772400	4,6585
1395600	3,129	1471200	0,6755	1546800	2,4295	1622400	0,8165	1698000	2,0915	1773600	4,6385
1396800	2,3815	1472400	2,452	1548000	2,6385	1623600	0,494	1699200	3,6715	1774800	5,08
1398000	2,595	1473600	2,2645	1549200	3,133	1624800	0,592	1700400	3,3885	1776000	5,0815
1399200	2,637	1474800	1,622	1550400	2,977	1626000	0,6325	1701600	3,423	1777200	5,2775
1400400	1,9965	1476000	1,594	1551600	1,9315	1627200	0,8635	1702800	2,5955	1778400	3,8145
1401600	2,2685	1477200	1,9385	1552800	1,477	1628400	0,983	1704000	2,953	1779600	5,1855
1402800	3,294	1478400	1,6515	1554000	0,763	1629600	0,5325	1705200	2,153	1780800	5,182
1404000	3,1485	1479600	1,601	1555200	0,655	1630800	0,5675	1706400	3,2075	1782000	3,5415
1405200	2,537	1480800	2,321	1556400	1,3945	1632000	0,614	1707600	3,215	1783200	4,357
1406400	2,1115	1482000	1,2785	1557600	0,821	1633200	0,7105	1708800	3,8985	1784400	3,8465
1407600	1,342	1483200	2,149	1558800	1,1105	1634400	0,791	1710000	2,5585	1785600	4,684
1408800	1,735	1484400	1,659	1560000	1,038	1635600	0,451	1711200	2,8615	1786800	5,11
1410000	1,845	1485600	2,0885	1561200	1,64	1636800	1,0555	1712400	3,7165	1788000	4,74
1411200	1,8435	1486800	1,794	1562400	1,543	1638000	1,8715	1713600	3,0145	1789200	4,9994
1412400	1,637	1488000	1,7115	1563600	2,1595	1639200	1,467	1714800	2,826	1790400	4,8275
1413600	1,3485	1489200	1,888	1564800	2,2875	1640400	1,3565	1716000	3,1185	1791600	5,925
1414800	1,0625	1490400	1,853	1566000	2,1165	1641600	1,5485	1717200	3,417	1792800	4,6755
1416000	1,809	1491600	1,8365	1567200	2,296	1642800	1,483	1718400	3,704	1794000	4,8415
1417200	2,6455	1492800	1,418	1568400	2,228	1644000	2,307	1719600	3,9535	1795200	4,2095
1418400	2,7165	1494000	1,232	1569600	1,9795	1645200	2,206	1720800	3,767	1796400	4,43
1419600	3,671	1495200	1,0745	1570800	1,551	1646400	1,9975	1722000	4,113	1797600	4,5835
1420800	3,705	1496400	1,6455	1572000	1,1235	1647600	2,1845	1723200	4,4075	1798800	3,4235
1422000	3,6035	1497600	1,1805	1573200	1,529	1648800	1,9655	1724400	3,9195	1800000	4,3645
1423200	3,3445	1498800	1,915	1574400	2,025	1650000	1,9025	1725600	3,956	1801200	4,143
1424400	2,9975	1500000	2,482	1575600	2,9745	1651200	1,5855	1726800	4,0585	1802400	4,306
1425600	2,761	1501200	3,0215	1576800	2,618	1652400	2,339	1728000	3,582	1803600	3,865
1426800	3,139	1502400	3,0165	1578000	3,611	1653600	2,7955	1729200	2,607	1804800	3,7455
1428000	3,5575	1503600	3,1745	1579200	4,189	1654800	2,2495	1730400	2,7815	1806000	3,7465
1429200	3,9435	1504800	3,821	1580400	4,3215	1656000	2,235	1731600	3,0515	1807200	4,2825
1430400	4,416	1506000	3,9785	1581600	3,7885	1657200	2,5275	1732800	2,773	1808400	3,8825
1431600	5,175	1507200	4,1185	1582800	2,9375	1658400	3,134	1734000	2,5515	1809600	3,801
1432800	5,597	1508400	3,9325	1584000	4,062	1659600	2,6955	1735200	2,873	1810800	3,634
1434000	6,455	1509600	2,5305	1585200	3,489	1660800	2,0865	1736400	2,6915	1812000	3,908
1435200	7,135	1510800	2,2025	1586400	3,65	1662000	1,805	1737600	2,3885	1813200	5,201

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Set 3 - 21st of May to 20th of June											
Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)
1814400	5,297	1890000	0,722	1965600	3,4095	2041200	1,7005	2116800	3,0295	2192400	4,617
1815600	4,0605	1891200	0,8795	1966800	3,221	2042400	1,0625	2118000	5,1815	2193600	4,3345
1816800	3,4995	1892400	0,8745	1968000	3,8365	2043600	1,417	2119200	5,1985	2194800	3,3445
1818000	3,8785	1893600	0,854	1969200	4,7145	2044800	0,804	2120400	4,738	2196000	3,018
1819200	3,2145	1894800	1,038	1970400	4,3635	2046000	1,37	2121600	4,912	2197200	4,9275
1820400	1,8095	1896000	0,4025	1971600	3,8455	2047200	2,3895	2122800	4,7845	2198400	4,668
1821600	2,7935	1897200	0,849	1972800	3,5865	2048400	3,2995	2124000	3,4605	2199600	3,861
1822800	2,919	1898400	0,6575	1974000	4,058	2049600	5,1345	2125200	3,4005	2200800	4,707
1824000	3,7825	1899600	0,9155	1975200	3,4205	2050800	5,462	2126400	3,7825	2202000	5,4775
1825200	3,1115	1900800	0,719	1976400	3,223	2052000	5,54	2127600	3,5205	2203200	5,952
1826400	3,4395	1902000	1,08	1977600	2,9185	2053200	4,931	2128800	4,724	2204400	5,0465
1827600	4,7795	1903200	1,7335	1978800	3,295	2054400	4,67	2130000	8,075	2205600	6,5815
1828800	3,6275	1904400	1,5545	1980000	4,3555	2055600	4,32	2131200	6,6535	2206800	7,142
1830000	1,6085	1905600	2,1005	1981200	3,786	2056800	3,7805	2132400	8,27	2208000	6,89
1831200	1,829	1906800	2,1485	1982400	3,7175	2058000	3,383	2133600	7,0115	2209200	7,62
1832400	2,3605	1908000	2,817	1983600	3,1405	2059200	2,8505	2134800	5,4685	2210400	7,555
1833600	2,332	1909200	4,1555	1984800	1,9105	2060400	2,6495	2136000	6,231	2211600	7,885
1834800	2,534	1910400	3,6575	1986000	1,5515	2061600	2,26	2137200	6,157	2212800	7,82
1836000	2,234	1911600	2,6925	1987200	1,524	2062800	1,256	2138400	5,4345	2214000	7,485
1837200	1,6175	1912800	2,9625	1988400	1,5035	2064000	1,0735	2139600	5,461	2215200	7,1035
1838400	1,0065	1914000	3,0315	1989600	1,4485	2065200	1,1565	2140800	4,8475	2216400	7,515
1839600	1,3725	1915200	3,5255	1990800	2,2525	2066400	0,93	2142000	5,2845	2217600	7,42
1840800	1,853	1916400	3,75	1992000	2,99	2067600	0,75	2143200	4,4855	2218800	6,9115
1842000	1,672	1917600	3,1685	1993200	3,453	2068800	1,113	2144400	2,8425	2220000	7,302
1843200	2,0475	1918800	3,114	1994400	3,5705	2070000	1,2445	2145600	1,795	2221200	7,017
1844400	1,5275	1920000	3,1675	1995600	3,8515	2071200	0,3605	2146800	1,9105	2222400	6,2785
1845600	1,9845	1921200	4,1135	1996800	3,2805	2072400	1,47	2148000	1,5865	2223600	7,1405
1846800	1,726	1922400	5,0335	1998000	4,1045	2073600	1,0765	2149200	2,683	2224800	6,3665
1848000	2,1695	1923600	5,4935	1999200	4,4175	2074800	1,6975	2150400	2,692	2226000	6,364
1849200	1,65	1924800	4,2945	2000400	4,011	2076000	3,6205	2151600	1,9295	2227200	5,1495
1850400	2,992	1926000	3,572	2001600	2,427	2077200	3,7015	2152800	0,449	2228400	4,0665
1851600	3,1505	1927200	3,724	2002800	1,6885	2078400	2,6845	2154000	1,2675	2229600	3,8785
1852800	3,1125	1928400	3,227	2004000	1,5425	2079600	2,7665	2155200	1,781	2230800	3,3265
1854000	2,652	1929600	3,038	2005200	1,5745	2080800	3,1455	2156400	3,1585	2232000	4,1065
1855200	2,9555	1930800	2,7915	2006400	0,945	2082000	4,349	2157600	4,4305	2233200	2,999
1856400	3,6225	1932000	2,833	2007600	1,262	2083200	3,521	2158800	2,696	2234400	3,1215
1857600	3,8435	1933200	2,895	2008800	0,6815	2084400	2,8125	2160000	4,407	2235600	3,157
1858800	3,022	1934400	3,1145	2010000	1,0295	2085600	5,434	2161200	3,785	2236800	2,7655
1860000	2,5285	1935600	2,8495	2011200	1,2045	2086800	6,008	2162400	4,104	2238000	1,9535
1861200	2,4975	1936800	3,6745	2012400	1,7035	2088000	5,681	2163600	3,7165	2239200	1,007
1862400	1,624	1938000	3,9955	2013600	1,4465	2089200	4,832	2164800	3,286	2240400	0,454
1863600	1,2125	1939200	4,67	2014800	1,865	2090400	3,807	2166000	3,0685	2241600	0,7285
1864800	1,916	1940400	4,285	2016000	2,1145	2091600	3,9685	2167200	3,831	2242800	0,6585
1866000	0,944	1941600	4,2965	2017200	2,4355	2092800	4,3425	2168400	3,177	2244000	1,0505
1867200	1,7125	1942800	4,4825	2018400	3,691	2094000	4,8725	2169600	2,52	2245200	0,8245
1868400	1,952	1944000	4,3355	2019600	5,0985	2095200	5,4975	2170800	1,8055	2246400	1,9335
1869600	2,9345	1945200	5,3765	2020800	3,342	2096400	4,428	2172000	0,9525	2247600	5,094
1870800	4,7445	1946400	6,0485	2022000	2,2765	2097600	3,5675	2173200	0,2535	2248800	3,479
1872000	5,307	1947600	5,2075	2023200	2,5455	2098800	3,9915	2174400	1,164	2250000	2,776
1873200	4,7985	1948800	4,7435	2024400	2,691	2100000	3,4225	2175600	1,781	2251200	2,624
1874400	4,291	1950000	4,289	2025600	3,638	2101200	3,869	2176800	1,9075	2252400	2,298
1875600	4,623	1951200	4,135	2026800	3,7515	2102400	4,534	2178000	1,669	2253600	3,533
1876800	3,9185	1952400	4,478	2028000	4,4765	2103600	3,8085	2179200	1,9895	2254800	2,8695
1878000	3,6075	1953600	4,751	2029200	4,977	2104800	3,9995	2180400	1,947	2256000	3,0905
1879200	3,1185	1954800	4,848	2030400	4,718	2106000	4,1255	2181600	1,823	2257200	3,187
1880400	3,1545	1956000	4,087	2031600	4,735	2107200	4,2325	2182800	2,185	2258400	3,5715
1881600	2,945	1957200	4,9195	2032800	3,4045	2108400	3,247	2184000	1,9385	2259600	4,0415
1882800	3,222	1958400	3,977	2034000	3,6115	2109600	3,4205	2185200	2,0045	2260800	3,336
1884000	2,9855	1959600	4,578	2035200	3,525	2110800	3,9575	2186400	2,4195	2262000	2,08
1885200	3,128	1960800	4,5155	2036400	3,5315	2112000	4,186	2187600	3,606	2263200	2,655
1886400	2,064	1962000	4,2315	2037600	1,7155	2113200	3,7655	2188800	6,0495	2264400	3,348
1887600	0,9665	1963200	3,4165	2038800	2,6895	2114400	3,9545	2190000	5,5115	2265600	2,687
1888800	0,4555	1964400	3,353	2040000	2,07	2115600	3,639	2191200	5,099	2266800	2,265

LI

Set 3 - 21st of May to 20th of June											
Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)	Seconds	Wind Speed (m/s)
2268000	3,378	2343600	2,231	2419200	1,333	2494800	2,954	2570400	5,374	2646000	5,765
2269200	3,6615	2344800	2,1555	2420400	1,257	2496000	2,7495	2571600	4,898	2647200	5,9565
2270400	4,9075	2346000	2,405	2421600	1,973	2497200	2,7765	2572800	4,9125	2648400	5,869
2271600	4,741	2347200	2,216	2422800	2,4605	2498400	1,5045	2574000	4,785	2649600	5,4185
2272800	5,637	2348400	2,1935	2424000	2,303	2499600	1,671	2575200	4,5045	2650800	4,554
2274000	5,6005	2349600	1,9645	2425200	2,644	2500800	2,328	2576400	4,2235	2652000	3,7245
2275200	5,899	2350800	1,592	2426400	2,314	2502000	1,4205	2577600	4,166	2653200	8,115
2276400	6,1575	2352000	1,431	2427600	2,645	2503200	2,1825	2578800	3,649	2654400	4,9045
2277600	4,773	2353200	1,666	2428800	2,372	2504400	2,186	2580000	3,594	2655600	1,8015
2278800	4,7145	2354400	1,419	2430000	2,817	2505600	4,674	2581200	3,0125	2656800	2,31
2280000	4,7875	2355600	1,252	2431200	2,8265	2506800	5,1885	2582400	2,9305	2658000	2,7785
2281200	3,9215	2356800	0,386	2432400	3,319	2508000	4,9525	2583600	2,936	2659200	1,767
2282400	3,371	2358000	1,1405	2433600	3,2445	2509200	4,2045	2584800	2,8395	2660400	1,4185
2283600	2,373	2359200	1,601	2434800	2,938	2510400	2,849	2586000	3,691	2661600	0,505
2284800	1,798	2360400	1,625	2436000	3,449	2511600	2,1055	2587200	2,794	2662800	0,588
2286000	1,6235	2361600	1,5615	2437200	2,804	2512800	2,8835	2588400	2,3285	2664000	2,6965
2287200	1,5385	2362800	2,291	2438400	2,805	2514000	2,7915	2589600	2,352	2665200	1,7585
2288400	2,1965	2364000	3,6605	2439600	2,6795	2515200	4,1175	2590800	1,3905	2666400	0,6645
2289600	3,968	2365200	3,477	2440800	2,7775	2516400	4,462	2592000	1,8485	2667600	0,926
2290800	4,1955	2366400	3,8915	2442000	3,1325	2517600	3,45	2593200	3,1405	2668800	0,8705
2292000	3,7965	2367600	3,7295	2443200	2,9635	2518800	3,3205	2594400	2,209	2670000	1,1925
2293200	3,2245	2368800	4,972	2444400	4,527	2520000	3,8605	2595600	1,734	2671200	1,4025
2294400	3,749	2370000	5,2105	2445600	4,1715	2521200	2,5355	2596800	2,07	2672400	0,8075
2295600	3,0825	2371200	6,3925	2446800	4,888	2522400	2,7155	2598000	1,087	2673600	1,1885
2296800	3,5765	2372400	6,467	2448000	4,815	2523600	2,941	2599200	1,5685	2674800	1,34
2298000	3,1065	2373600	6,662	2449200	4,9185	2524800	2,5045	2600400	1,5345	2676000	1,0715
2299200	4,201	2374800	6,2655	2450400	4,44	2526000	3,027	2601600	1,96	2677200	1,671
2300400	3,5205	2376000	7,575	2451600	3,3025	2527200	4,85	2602800	1,188	2678400	2,33
2301600	3,7355	2377200	7,35	2452800	2,108	2528400	5,4455	2604000	1,455		
2302800	3,383	2378400	6,6465	2454000	2,1135	2529600	5,208	2605200	1,8865		
2304000	2,3765	2379600	6,756	2455200	2,7575	2530800	5,683	2606400	1,503		
2305200	2,688	2380800	6,99	2456400	3,301	2532000	5,607	2607600	1,1055		
2306400	2,7445	2382000	7,017	2457600	2,3115	2533200	6,307	2608800	1,2235		
2307600	3,116	2383200	6,2165	2458800	3,434	2534400	6,7475	2610000	1,28		
2308800	4,394	2384400	5,196	2460000	4,878	2535600	7,4585	2611200	1,6775		
2310000	5,092	2385600	5,503	2461200	5,1555	2536800	6,2725	2612400	1,9765		
2311200	4,487	2386800	5,158	2462400	5,768	2538000	6,682	2613600	2,161		
2312400	4,173	2388000	5,389	2463600	5,1915	2539200	5,8385	2614800	1,8745		
2313600	4,7865	2389200	5,643	2464800	6,015	2540400	6,5405	2616000	1,386		
2314800	3,515	2390400	5,13	2466000	6,034	2541600	5,951	2617200	1,567		
2316000	3,2475	2391600	5,226	2467200	7,032	2542800	6,223	2618400	1,687		
2317200	4,6955	2392800	5,5175	2468400	7,5885	2544000	6,075	2619600	1,458		
2318400	4,3605	2394000	6,8525	2469600	6,6605	2545200	5,39	2620800	0,9915		
2319600	3,3415	2395200	6,925	2470800	8,335	2546400	5,091	2622000	1,8745		
2320800	1,7375	2396400	5,769	2472000	9,865	2547600	4,535	2623200	2,624		
2322000	0,3265	2397600	6,0175	2473200	8,46	2548800	3,688	2624400	2,405		
2323200	0,258	2398800	5,6865	2474400	6,2535	2550000	4,608	2625600	1,6215		
2324400	0,699	2400000	6,274	2475600	5,559	2551200	5,346	2626800	2,58		
2325600	0,7415	2401200	5,6675	2476800	4,5435	2552400	5,0695	2628000	3,033		
2326800	0,8155	2402400	4,7425	2478000	4,0545	2553600	5,968	2629200	1,946		
2328000	1,079	2403600	4,3355	2479200	4,033	2554800	7,985	2630400	1,853		
2329200	0,571	2404800	4,305	2480400	2,2445	2556000	6,0475	2631600	2,151		
2330400	0,437	2406000	4,4735	2481600	2,3395	2557200	4,871	2632800	1,655		
2331600	0,8255	2407200	3,759	2482800	0,862	2558400	4,5565	2634000	2,4985		
2332800	0,5285	2408400	3,0585	2484000	1,734	2559600	5,474	2635200	2,9365		
2334000	0,6525	2409600	2,523	2485200	5,655	2560800	6,6595	2636400	2,0285		
2335200	0,7565	2410800	2,5545	2486400	5,6685	2562000	4,908	2637600	1,6995		
2336400	1,136	2412000	2,427	2487600	5,118	2563200	5,648	2638800	2,675		
2337600	0,556	2413200	2,5565	2488800	4,0025	2564400	6,242	2640000	2,553		
2338800	0,502	2414400	2,308	2490000	4,412	2565600	5,6595	2641200	3,049		
2340000	1,301	2415600	2,293	2491200	5,4525	2566800	6,658	2642400	3,4995		
2341200	1,995	2416800	2,639	2492400	5,5275	2568000	5,883	2643600	3,3005		
2342400	2,602	2418000	1,811	2493600	2,476	2569200	5,079	2644800	3,0645		

Set 1 - 8th to 20th of April												
Seconds	Global Rad. (W/m2)	Diffuse Rad. (W/m2)	Seconds	Global Rad. (W/m2)	Diffuse Rad. (W/m2)	Seconds	Global Rad. (W/m2)	Diffuse Rad. (W/m2)	Seconds	Global Rad. (W/m2)	Diffuse Rad. (W/m2)
0	0,0	0,0	226800	730,2	222,2	453600	0,0	0,0	680400	0,0	0,0
3600	0,0	0,0	230400	641,0	157,4	457200	14,5	13,7	684000	0,0	0,0
7200	0,0	0,0	234000	511,9	142,5	460800	52,5	51,9	687600	0,0	0,0
10800	0,0	0,0	237600	365,4	114,7	464400	94,4	93,6	691200	0,0	0,0
14400	0,0	0,0	241200	186,1	82,4	468000	157,1	156,1	694800	0,0	0,0
18000	0,0	0,0	244800	44,8	31,7	471600	236,4	235,1	698400	0,0	0,0
21600	0,0	0,0	248400	0,0	0,0	475200	361,4	359,5	702000	0,0	0,0
25200	0,0	0,0	252000	0,0	0,0	478800	407,9	398,7	705600	0,0	0,0
28800	11,7	11,0	255600	0,0	0,0	482400	439,0	394,7	709200	0,0	0,0
32400	28,6	27,9	259200	0,0	0,0	486000	524,5	405,9	712800	0,0	0,0
36000	51,9	51,3	262800	0,0	0,0	489600	449,5	378,4	716400	16,3	15,4
39600	118,2	117,4	266400	0,0	0,0	493200	381,4	296,5	720000	76,8	74,9
43200	140,3	139,3	270000	0,0	0,0	496800	213,3	177,8	723600	276,3	233,3
46800	172,6	171,5	273600	0,0	0,0	500400	94,8	93,8	727200	369,9	282,4
50400	197,5	196,4	277200	0,0	0,0	504000	27,4	26,7	730800	668,3	140,4
54000	268,4	265,8	280800	0,0	0,0	507600	0,0	0,0	734400	774,9	149,6
57600	136,6	135,3	284400	48,7	30,9	511200	0,0	0,0	738000	750,9	238,5
61200	119,8	118,7	288000	206,5	74,4	514800	0,0	0,0	741600	678,8	383,8
64800	116,8	113,8	291600	402,0	98,9	518400	0,0	0,0	745200	671,5	312,1
68400	159,4	138,8	295200	531,2	121,7	522000	0,0	0,0	748800	561,0	310,0
72000	27,7	26,9	298800	657,9	129,9	525600	0,0	0,0	752400	495,1	192,1
75600	0,0	0,0	302400	722,3	149,7	529200	0,0	0,0	756000	323,0	165,0
79200	0,0	0,0	306000	758,8	166,1	532800	0,0	0,0	759600	100,4	91,7
82800	0,0	0,0	309600	772,0	148,8	536400	0,0	0,0	763200	40,4	39,7
86400	0,0	0,0	313200	741,4	150,8	540000	0,0	0,0	766800	0,0	0,0
90000	0,0	0,0	316800	629,1	158,9	543600	8,2	7,4	770400	0,0	0,0
93600	0,0	0,0	320400	501,2	148,9	547200	27,9	27,2	774000	0,0	0,0
97200	0,0	0,0	324000	341,0	124,2	550800	103,3	102,5	777600	0,0	0,0
100800	0,0	0,0	327600	169,2	90,6	554400	174,8	173,9	781200	0,0	0,0
104400	0,0	0,0	331200	43,5	33,2	558000	110,1	109,2	784800	0,0	0,0
108000	0,0	0,0	334800	0,0	0,0	561600	106,6	105,8	788400	0,0	0,0
111600	5,0	4,2	338400	0,0	0,0	565200	54,4	53,7	792000	0,0	0,0
115200	28,6	27,9	342000	0,0	0,0	568800	77,9	77,2	795600	0,0	0,0
118800	69,5	68,9	345600	0,0	0,0	572400	195,7	194,2	799200	0,0	0,0
122400	100,2	99,4	349200	0,0	0,0	576000	301,4	296,6	802800	21,8	21,1
126000	127,7	126,8	352800	0,0	0,0	579600	350,5	316,9	806400	73,0	72,0
129600	184,4	183,2	356400	0,0	0,0	583200	178,4	172,0	810000	283,9	139,0
133200	278,2	273,9	360000	0,0	0,0	586800	53,2	52,5	813600	561,6	171,6
136800	238,4	232,6	363600	0,0	0,0	590400	8,4	7,6	817200	664,9	177,9
140400	194,8	190,5	367200	0,0	0,0	594000	0,0	0,0	820800	698,4	199,5
144000	188,7	187,3	370800	56,8	43,0	597600	0,0	0,0	824400	629,3	191,2
147600	259,0	203,2	374400	208,9	140,7	601200	0,0	0,0	828000	860,1	163,9
151200	243,2	131,8	378000	297,7	186,3	604800	0,0	0,0	831600	804,4	133,6
154800	107,0	87,7	381600	474,6	258,8	608400	0,0	0,0	835200	679,9	129,8
158400	20,7	19,2	385200	549,6	251,3	612000	0,0	0,0	838800	548,7	124,7
162000	0,0	0,0	388800	659,8	307,6	615600	0,0	0,0	842400	407,2	103,7
165600	0,0	0,0	392400	655,0	332,5	619200	0,0	0,0	846000	226,7	82,4
169200	0,0	0,0	396000	722,5	294,5	622800	0,0	0,0	849600	78,3	43,3
172800	0,0	0,0	399600	552,7	398,4	626400	0,0	0,0	853200	5,0	4,1
176400	0,0	0,0	403200	451,0	324,7	630000	29,3	28,3	856800	0,0	0,0
180000	0,0	0,0	406800	301,9	273,8	633600	102,2	94,7	860400	0,0	0,0
183600	0,0	0,0	410400	194,4	191,5	637200	357,2	259,4	864000	0,0	0,0
187200	0,0	0,0	414000	97,9	96,4	640800	269,9	267,0	867600	0,0	0,0
190800	0,0	0,0	417600	20,9	20,1	644400	360,7	352,4	871200	0,0	0,0
194400	0,0	0,0	421200	0,0	0,0	648000	545,8	483,3	874800	0,0	0,0
198000	17,9	17,1	424800	0,0	0,0	651600	533,4	480,6	878400	0,0	0,0
201600	78,2	77,1	428400	0,0	0,0	655200	515,4	404,1	882000	0,0	0,0
205200	281,1	222,9	432000	0,0	0,0	658800	342,1	298,6	885600	8,3	6,5
208800	305,4	294,0	435600	0,0	0,0	662400	332,9	326,3	889200	93,8	46,3
212400	418,9	379,9	439200	0,0	0,0	666000	247,9	246,3	892800	228,5	127,8
216000	481,5	446,8	442800	0,0	0,0	669600	160,8	158,8	896400	392,3	177,6
219600	474,8	461,9	446400	0,0	0,0	673200	66,6	65,6	900000	515,7	171,0
223200	654,1	381,9	450000	0,0	0,0	676800	20,4	19,6	903600	712,3	115,6

Set 1 - 8th to 20th of April		
Seconds	Global Rad. (W/m2)	Diffuse Rad. (W/m2)
907200	721,3	233,6
910800	883,3	435,3
914400	656,4	411,7
918000	639,5	339,2
921600	455,9	357,8
925200	334,1	281,9
928800	299,0	206,6
932400	223,3	103,2
936000	82,9	46,1
939600	5,0	4,2
943200	0,0	0,0
946800	0,0	0,0
950400	0,0	0,0
954000	0,0	0,0
957600	0,0	0,0
961200	0,0	0,0
964800	0,0	0,0
968400	0,0	0,0
972000	8,2	7,4
975600	109,3	65,6
979200	242,4	113,0
982800	420,6	161,8
986400	568,2	178,4
990000	691,7	170,9
993600	778,2	153,6
997200	743,0	228,5
1000800	785,3	257,9
1004400	772,7	250,3
1008000	644,3	252,1
1011600	501,2	212,4
1015200	329,5	173,7
1018800	178,7	120,3
1022400	56,3	49,8
1026000	4,9	4,1
1029600	0,0	0,0
1033200	0,0	0,0
1036800	0,0	0,0
1040400	0,0	0,0
1044000	0,0	0,0
1047600	0,0	0,0
1051200	0,0	0,0
1054800	0,0	0,0
1058400	11,2	9,3
1062000	96,4	55,9
1065600	264,9	102,6

Set 2 - 21st of April to 20th of May											
Seconds	Global Rad. (W/m2)	Seconds	Global Rad. (W/m2)	Seconds	Global Rad. (W/m2)	Seconds	Global Rad. (W/m2)	Seconds	Global Rad. (W/m2)	Seconds	Global Rad. (W/m2)
0	0,0	226800	819,9	453600	15,5	680400	12,9	907200	812,7	1134000	0,0
3600	0,0	230400	683,6	457200	73,3	684000	0,0	910800	797,7	1137600	0,0
7200	0,0	234000	572,7	460800	136,6	687600	0,0	914400	860,9	1141200	0,0
10800	0,0	237600	433,8	464400	385,6	691200	0,0	918000	849,5	1144800	28,1
14400	0,0	241200	265,1	468000	302,7	694800	0,0	921600	720,4	1148400	100,3
18000	0,0	244800	96,6	471600	258,1	698400	0,0	925200	595,6	1152000	246,2
21600	10,6	248400	9,7	475200	382,8	702000	0,0	928800	451,2	1155600	551,5
25200	85,4	252000	0,0	478800	192,9	705600	0,0	932400	286,0	1159200	660,6
28800	256,3	255600	0,0	482400	326,1	709200	0,0	936000	118,1	1162800	794,2
32400	449,9	259200	0,0	486000	383,5	712800	17,1	939600	21,4	1166400	841,4
36000	564,2	262800	0,0	489600	584,4	716400	95,7	943200	0,0	1170000	879,2
39600	616,9	266400	0,0	493200	460,5	720000	260,7	946800	0,0	1173600	914,8
43200	781,1	270000	0,0	496800	296,4	723600	267,5	950400	0,0	1177200	879,5
46800	780,8	273600	0,0	500400	166,0	727200	478,7	954000	0,0	1180800	746,7
50400	477,6	277200	0,0	504000	53,7	730800	442,1	957600	0,0	1184400	628,5
54000	463,0	280800	18,1	507600	7,1	734400	160,3	961200	0,0	1188000	493,8
57600	388,9	284400	116,7	511200	0,0	738000	665,9	964800	0,0	1191600	318,1
61200	417,3	288000	290,0	514800	0,0	741600	546,6	968400	0,0	1195200	109,8
64800	106,3	291600	464,5	518400	0,0	745200	797,6	972000	41,7	1198800	18,2
68400	142,6	295200	583,8	522000	0,0	748800	693,5	975600	146,1	1202400	0,0
72000	59,9	298800	715,1	525600	0,0	752400	577,3	979200	310,5	1206000	0,0
75600	6,7	302400	771,2	529200	0,0	756000	430,3	982800	464,2	1209600	0,0
79200	0,0	306000	819,5	532800	0,0	759600	237,1	986400	584,5	1213200	0,0
82800	0,0	309600	840,2	536400	0,0	763200	87,9	990000	650,8	1216800	0,0
86400	0,0	313200	795,8	540000	20,0	766800	15,0	993600	610,6	1220400	0,0
90000	0,0	316800	668,3	543600	83,7	770400	0,0	997200	585,3	1224000	0,0
93600	0,0	320400	569,3	547200	174,7	774000	0,0	1000800	528,6	1227600	0,0
97200	0,0	324000	426,8	550800	318,0	777600	0,0	1004400	600,4	1231200	10,1
100800	0,0	327600	262,6	554400	533,2	781200	0,0	1008000	371,5	1234800	40,0
104400	0,0	331200	106,1	558000	483,2	784800	0,0	1011600	206,1	1238400	98,5
108000	7,5	334800	11,4	561600	462,1	788400	0,0	1015200	194,3	1242000	176,7
111600	59,6	338400	0,0	565200	450,0	792000	0,0	1018800	224,4	1245600	352,0
115200	161,5	342000	0,0	568800	443,7	795600	0,0	1022400	114,8	1249200	582,0
118800	436,7	345600	0,0	572400	743,8	799200	23,3	1026000	19,5	1252800	704,9
122400	470,4	349200	0,0	576000	508,6	802800	109,2	1029600	0,0	1256400	876,2
126000	676,0	352800	0,0	579600	198,0	806400	280,5	1033200	0,0	1260000	925,2
129600	714,3	356400	0,0	583200	164,4	810000	483,8	1036800	0,0	1263600	884,6
133200	756,6	360000	0,0	586800	180,5	813600	614,8	1040400	0,0	1267200	754,3
136800	865,9	363600	0,0	590400	77,3	817200	744,9	1044000	0,0	1270800	630,3
140400	741,0	367200	18,3	594000	4,9	820800	797,7	1047600	0,0	1274400	486,5
144000	529,8	370800	110,3	597600	0,0	824400	833,3	1051200	0,0	1278000	297,6
147600	576,7	374400	281,9	601200	0,0	828000	863,4	1054800	0,0	1281600	148,7
151200	383,8	378000	473,1	604800	0,0	831600	831,6	1058400	31,1	1285200	35,4
154800	240,2	381600	593,5	608400	0,0	835200	700,6	1062000	72,2	1288800	0,0
158400	81,2	385200	721,6	612000	0,0	838800	572,9	1065600	150,1	1292400	0,0
162000	8,3	388800	774,1	615600	0,0	842400	430,6	1069200	267,4	1296000	0,0
165600	0,0	392400	817,2	619200	0,0	846000	261,4	1072800	587,3	1299600	0,0
169200	0,0	396000	839,1	622800	0,0	849600	102,9	1076400	583,4	1303200	0,0
172800	0,0	399600	805,8	626400	0,0	853200	18,4	1080000	572,4	1306800	0,0
176400	0,0	403200	687,4	630000	18,1	856800	0,0	1083600	572,3	1310400	0,0
180000	0,0	406800	533,1	633600	49,3	860400	0,0	1087200	548,8	1314000	0,0
183600	0,0	410400	411,6	637200	109,2	864000	0,0	1090800	621,2	1317600	20,5
187200	0,0	414000	251,2	640800	121,5	867600	0,0	1094400	454,8	1321200	81,5
190800	0,0	417600	89,5	644400	235,1	871200	0,0	1098000	307,4	1324800	171,8
194400	12,7	421200	8,9	648000	207,6	874800	0,0	1101600	214,9	1328400	381,6
198000	99,3	424800	0,0	651600	425,4	878400	0,0	1105200	197,8	1332000	564,1
201600	283,7	428400	0,0	655200	509,0	882000	0,0	1108800	101,3	1335600	766,7
205200	476,8	432000	0,0	658800	732,5	885600	33,6	1112400	30,9	1339200	835,1
208800	597,4	435600	0,0	662400	692,4	889200	145,2	1116000	0,0	1342800	885,9
212400	730,3	439200	0,0	666000	496,7	892800	334,8	1119600	0,0	1346400	924,3
216000	784,4	442800	0,0	669600	356,2	896400	516,8	1123200	0,0	1350000	822,5
219600	831,4	446400	0,0	673200	263,0	900000	635,0	1126800	0,0	1353600	746,9
223200	847,1	450000	0,0	676800	100,8	903600	762,5	1130400	0,0	1357200	644,6

Set 2 - 21st of April to 20th of May									
Seconds	Global Rad. (W/m2)	Seconds	Global Rad. (W/m2)	Seconds	Global Rad. (W/m2)	Seconds	Global Rad. (W/m2)	Seconds	Global Rad. (W/m2)	Seconds	Global Rad. (W/m2)
1360800	499,0	1587600	499,4	1814400	0,0	2041200	600,6	2268000	86,9	2494800	36,8
1364400	274,1	1591200	665,6	1818000	0,0	2044800	577,5	2271600	211,4	2498400	5,1
1368000	158,1	1594800	694,4	1821600	0,0	2048400	228,2	2275200	429,8	2502000	0,0
1371600	41,8	1598400	773,1	1825200	0,0	2052000	324,7	2278800	599,5	2505600	0,0
1375200	0,0	1602000	652,0	1828800	0,0	2055600	153,4	2282400	712,4	2509200	0,0
1378800	0,0	1605600	789,2	1832400	7,2	2059200	162,2	2286000	580,3	2512800	0,0
1382400	0,0	1609200	790,3	1836000	65,7	2062800	67,5	2289600	664,8	2516400	0,0
1386000	0,0	1612800	719,0	1839600	215,6	2066400	4,9	2293200	570,2	2520000	0,0
1389600	0,0	1616400	590,6	1843200	412,4	2070000	0,0	2296800	854,2	2523600	12,1
1393200	0,0	1620000	480,4	1846800	594,1	2073600	0,0	2300400	700,3	2527200	62,9
1396800	0,0	1623600	319,5	1850400	702,4	2077200	0,0	2304000	707,6	2530800	243,7
1400400	0,0	1627200	159,2	1854000	828,3	2080800	0,0	2307600	625,4	2534400	275,0
1404000	11,7	1630800	42,4	1857600	872,7	2084400	0,0	2311200	333,0	2538000	540,8
1407600	50,8	1634400	0,0	1861200	710,0	2088000	0,0	2314800	168,7	2541600	386,9
1411200	74,5	1638000	0,0	1864800	746,9	2091600	12,0	2318400	70,0	2545200	151,8
1414800	115,6	1641600	0,0	1868400	537,9	2095200	80,8	2322000	19,6	2548800	98,4
1418400	102,1	1645200	0,0	1872000	385,6	2098800	227,8	2325600	0,0	2552400	394,9
1422000	107,4	1648800	0,0	1875600	667,0	2102400	425,9	2329200	0,0	2556000	589,2
1425600	230,1	1652400	0,0	1879200	548,3	2106000	599,5	2332800	0,0	2559600	478,2
1429200	427,5	1656000	0,0	1882800	365,1	2109600	707,2	2336400	0,0	2563200	609,3
1432800	773,4	1659600	0,0	1886400	183,8	2113200	837,7	2340000	0,0	2566800	427,0
1436400	794,3	1663200	28,8	1890000	52,6	2116800	874,6	2343600	0,0	2570400	222,9
1440000	748,6	1666800	51,2	1893600	0,0	2120400	906,2	2347200	0,0	2574000	129,9
1443600	605,1	1670400	147,2	1897200	0,0	2124000	947,8	2350800	0,0	2577600	45,0
1447200	498,2	1674000	236,8	1900800	0,0	2127600	918,4	2354400	13,0	2581200	20,5
1450800	329,0	1677600	223,4	1904400	0,0	2131200	794,4	2358000	20,4	2584800	0,0
1454400	150,9	1681200	436,8	1908000	0,0	2134800	680,6	2361600	58,4	2588400	0,0
1458000	38,2	1684800	672,8	1911600	0,0	2138400	546,4	2365200	151,3		
1461600	0,0	1688400	802,5	1915200	0,0	2142000	365,4	2368800	185,9		
1465200	0,0	1692000	930,3	1918800	0,0	2145600	192,9	2372400	164,7		
1468800	0,0	1695600	846,4	1922400	31,2	2149200	67,1	2376000	282,6		
1472400	0,0	1699200	719,9	1926000	118,1	2152800	5,5	2379600	247,9		
1476000	0,0	1702800	350,8	1929600	366,6	2156400	0,0	2383200	342,1		
1479600	0,0	1706400	415,7	1933200	600,3	2160000	0,0	2386800	507,3		
1483200	0,0	1710000	177,2	1936800	706,0	2163600	0,0	2390400	402,0		
1486800	0,0	1713600	113,7	1940400	812,0	2167200	0,0	2394000	686,6		
1490400	41,5	1717200	12,7	1944000	678,2	2170800	0,0	2397600	116,9		
1494000	161,1	1720800	0,0	1947600	544,0	2174400	0,0	2401200	80,9		
1497600	199,6	1724400	0,0	1951200	285,5	2178000	14,2	2404800	49,6		
1501200	86,0	1728000	0,0	1954800	426,7	2181600	95,2	2408400	15,5		
1504800	96,2	1731600	0,0	1958400	314,1	2185200	239,4	2412000	0,0		
1508400	112,5	1735200	0,0	1962000	272,6	2188800	440,7	2415600	0,0		
1512000	78,0	1738800	0,0	1965600	274,1	2192400	612,1	2419200	0,0		
1515600	104,1	1742400	0,0	1969200	132,4	2196000	718,5	2422800	0,0		
1519200	125,2	1746000	0,0	1972800	106,2	2199600	851,7	2426400	0,0		
1522800	164,0	1749600	25,1	1976400	41,9	2203200	889,1	2430000	0,0		
1526400	230,4	1753200	79,8	1980000	0,0	2206800	921,3	2433600	0,0		
1530000	365,3	1756800	229,5	1983600	0,0	2210400	956,4	2437200	0,0		
1533600	238,8	1760400	324,6	1987200	0,0	2214000	942,9	2440800	57,7		
1537200	134,3	1764000	642,8	1990800	0,0	2217600	766,9	2444400	210,2		
1540800	120,9	1767600	736,3	1994400	0,0	2221200	586,7	2448000	258,9		
1544400	38,6	1771200	768,9	1998000	0,0	2224800	547,8	2451600	488,4		
1548000	0,0	1774800	844,8	2001600	0,0	2228400	301,8	2455200	310,3		
1551600	0,0	1778400	895,4	2005200	0,0	2232000	200,1	2458800	627,0		
1555200	0,0	1782000	812,2	2008800	11,8	2235600	66,7	2462400	759,2		
1558800	0,0	1785600	696,9	2012400	49,7	2239200	6,0	2466000	592,2		
1562400	0,0	1789200	545,8	2016000	101,1	2242800	0,0	2469600	602,2		
1566000	0,0	1792800	401,9	2019600	176,4	2246400	0,0	2473200	877,2		
1569600	0,0	1796400	378,4	2023200	320,7	2250000	0,0	2476800	698,1		
1573200	0,0	1800000	177,8	2026800	260,8	2253600	0,0	2480400	398,1		
1576800	13,6	1803600	51,8	2030400	517,5	2257200	0,0	2484000	290,0		
1580400	74,7	1807200	0,0	2034000	939,9	2260800	0,0	2487600	270,0		
1584000	272,3	1810800	0,0	2037600	362,3	2264400	11,2	2491200	131,3		

Set 3 - 21st of May to 20th of June											
Seconds	Global Rad. (W/m2)	Seconds	Global Rad. (W/m2)	Seconds	Global Rad. (W/m2)	Seconds	Global Rad. (W/m2)	Seconds	Global Rad. (W/m2)	Seconds	Global Rad. (W/m2)
0	0,0	226800	889,8	453600	44,8	680400	116,1	907200	931,2	1134000	0,0
3600	0,0	230400	775,7	457200	143,9	684000	17,6	910800	960,8	1137600	0,0
7200	0,0	234000	719,5	460800	256,6	687600	0,0	914400	998,0	1141200	38,8
10800	0,0	237600	595,3	464400	385,5	691200	0,0	918000	957,1	1144800	143,2
14400	0,0	241200	381,4	468000	317,5	694800	0,0	921600	850,9	1148400	296,1
18000	9,4	244800	238,0	471600	430,0	698400	0,0	925200	743,7	1152000	475,1
21600	42,3	248400	80,7	475200	321,7	702000	0,0	928800	629,3	1155600	646,9
25200	109,5	252000	9,4	478800	222,2	705600	0,0	932400	451,3	1159200	529,2
28800	191,4	255600	0,0	482400	169,4	709200	38,1	936000	267,7	1162800	834,5
32400	297,4	259200	0,0	486000	171,0	712800	143,0	939600	123,3	1166400	591,0
36000	502,0	262800	0,0	489600	94,5	716400	298,6	943200	27,0	1170000	869,2
39600	385,0	266400	0,0	493200	115,7	720000	483,2	946800	0,0	1173600	991,0
43200	366,1	270000	0,0	496800	82,5	723600	623,2	950400	0,0	1177200	606,7
46800	573,0	273600	0,0	500400	71,1	727200	713,9	954000	0,0	1180800	880,1
50400	755,3	277200	7,7	504000	42,1	730800	702,2	957600	0,0	1184400	663,0
54000	660,6	280800	56,5	507600	15,2	734400	843,0	961200	0,0	1188000	539,2
57600	276,0	284400	141,1	511200	0,0	738000	963,6	964800	0,0	1191600	367,6
61200	287,0	288000	322,6	514800	0,0	741600	1001,0	968400	41,2	1195200	257,3
64800	305,5	291600	371,5	518400	0,0	745200	920,2	972000	148,4	1198800	121,7
68400	360,4	295200	672,3	522000	0,0	748800	831,0	975600	302,9	1202400	23,3
72000	221,1	298800	360,3	525600	0,0	752400	721,3	979200	480,6	1206000	0,0
75600	95,7	302400	498,3	529200	0,0	756000	573,8	982800	647,7	1209600	0,0
79200	8,8	306000	435,5	532800	0,0	759600	282,9	986400	752,9	1213200	0,0
82800	0,0	309600	561,7	536400	18,6	763200	178,9	990000	883,5	1216800	0,0
86400	0,0	313200	600,3	540000	87,8	766800	91,6	993600	929,3	1220400	0,0
90000	0,0	316800	692,9	543600	197,4	770400	23,3	997200	961,2	1224000	0,0
93600	0,0	320400	488,3	547200	334,4	774000	0,0	1000800	995,1	1227600	42,9
97200	0,0	324000	386,0	550800	622,8	777600	0,0	1004400	952,0	1231200	146,5
100800	0,0	327600	228,0	554400	760,2	781200	0,0	1008000	842,6	1234800	297,7
104400	0,0	331200	184,7	558000	871,8	784800	0,0	1011600	741,8	1238400	474,3
108000	7,6	334800	98,3	561600	912,5	788400	0,0	1015200	581,9	1242000	561,7
111600	23,1	338400	13,9	565200	949,3	792000	0,0	1018800	360,1	1245600	684,1
115200	49,8	342000	0,0	568800	956,4	795600	31,2	1022400	240,7	1249200	805,7
118800	66,4	345600	0,0	572400	967,9	799200	164,4	1026000	72,6	1252800	766,2
122400	58,4	349200	0,0	576000	729,1	802800	301,9	1029600	17,0	1256400	475,1
126000	44,1	352800	0,0	579600	637,9	806400	490,2	1033200	0,0	1260000	637,6
129600	67,5	356400	0,0	583200	418,7	810000	663,5	1036800	0,0	1263600	673,2
133200	102,8	360000	0,0	586800	229,4	813600	760,6	1040400	0,0	1267200	436,4
136800	155,2	363600	11,3	590400	85,6	817200	891,2	1044000	0,0	1270800	318,1
140400	221,2	367200	41,7	594000	27,4	820800	930,9	1047600	0,0	1274400	319,2
144000	81,9	370800	79,3	597600	5,3	824400	960,7	1051200	0,0	1278000	164,5
147600	117,7	374400	171,3	601200	0,0	828000	995,5	1054800	23,3	1281600	85,8
151200	100,7	378000	264,0	604800	0,0	831600	953,1	1058400	100,7	1285200	40,1
154800	104,4	381600	698,2	608400	0,0	835200	845,4	1062000	206,7	1288800	9,9
158400	64,1	385200	881,6	612000	0,0	838800	739,4	1065600	269,5	1292400	0,0
162000	22,2	388800	923,8	615600	0,0	842400	626,9	1069200	375,6	1296000	0,0
165600	0,0	392400	942,2	619200	0,0	846000	446,6	1072800	404,2	1299600	0,0
169200	0,0	396000	954,9	622800	7,6	849600	262,3	1076400	393,4	1303200	0,0
172800	0,0	399600	910,4	626400	75,4	853200	117,7	1080000	385,5	1306800	0,0
176400	0,0	403200	831,4	630000	299,7	856800	24,2	1083600	783,9	1310400	0,0
180000	0,0	406800	716,6	633600	473,8	860400	0,0	1087200	805,3	1314000	14,1
183600	0,0	410400	595,8	637200	622,5	864000	0,0	1090800	685,3	1317600	45,7
187200	0,0	414000	419,2	640800	597,2	867600	0,0	1094400	777,6	1321200	82,9
190800	20,6	417600	236,3	644400	390,2	871200	0,0	1098000	453,0	1324800	275,8
194400	117,7	421200	96,6	648000	413,1	874800	0,0	1101600	510,6	1328400	412,1
198000	267,8	424800	14,2	651600	870,6	878400	0,0	1105200	188,3	1332000	529,5
201600	430,0	428400	0,0	655200	713,3	882000	43,0	1108800	212,0	1335600	418,6
205200	557,3	432000	0,0	658800	765,8	885600	145,1	1112400	35,9	1339200	327,6
208800	681,5	435600	0,0	662400	545,8	889200	300,4	1116000	4,2	1342800	639,6
212400	836,5	439200	0,0	666000	606,3	892800	477,4	1119600	0,0	1346400	573,3
216000	958,8	442800	0,0	669600	625,6	896400	645,5	1123200	0,0	1350000	470,7
219600	1012,8	446400	0,0	673200	441,8	900000	752,5	1126800	0,0	1353600	452,9
223200	1006,2	450000	9,0	676800	259,0	903600	887,3	1130400	0,0	1357200	413,3

Set 3 - 21st of May to 20th of June											
Seconds	Global Rad. (W/m2)	Seconds	Global Rad. (W/m2)	Seconds	Global Rad. (W/m2)	Seconds	Global Rad. (W/m2)	Seconds	Global Rad. (W/m2)	Seconds	Global Rad. (W/m2)
1360800	276,8	1587600	624,8	1814400	0,0	2041200	310,3	2268000	68,7	2494800	64,5
1364400	131,3	1591200	334,9	1818000	0,0	2044800	183,7	2271600	161,8	2498400	28,3
1368000	136,3	1594800	777,7	1821600	0,0	2048400	208,5	2275200	422,2	2502000	0,0
1371600	96,3	1598400	872,5	1825200	0,0	2052000	305,1	2278800	640,9	2505600	0,0
1375200	26,9	1602000	979,8	1828800	0,0	2055600	525,1	2282400	609,8	2509200	0,0
1378800	0,0	1605600	931,5	1832400	7,9	2059200	353,9	2286000	664,2	2512800	0,0
1382400	0,0	1609200	877,0	1836000	29,6	2062800	137,7	2289600	809,0	2516400	0,0
1386000	0,0	1612800	748,1	1839600	180,7	2066400	34,4	2293200	854,1	2520000	0,0
1389600	0,0	1616400	451,8	1843200	173,4	2070000	0,0	2296800	792,1	2523600	46,8
1393200	0,0	1620000	306,2	1846800	212,9	2073600	0,0	2300400	908,8	2527200	163,4
1396800	0,0	1623600	273,0	1850400	376,5	2077200	0,0	2304000	786,1	2530800	328,4
1400400	41,4	1627200	121,0	1854000	276,8	2080800	0,0	2307600	692,0	2534400	473,3
1404000	147,2	1630800	51,5	1857600	348,4	2084400	0,0	2311200	651,8	2538000	594,3
1407600	299,3	1634400	27,6	1861200	546,8	2088000	0,0	2314800	475,7	2541600	626,1
1411200	464,8	1638000	0,0	1864800	469,7	2091600	36,8	2318400	158,0	2545200	581,8
1414800	564,8	1641600	0,0	1868400	623,8	2095200	84,3	2322000	54,8	2548800	757,0
1418400	579,9	1645200	0,0	1872000	323,8	2098800	310,8	2325600	21,5	2552400	912,9
1422000	454,7	1648800	0,0	1875600	347,6	2102400	487,2	2329200	0,0	2556000	899,4
1425600	419,3	1652400	0,0	1879200	313,5	2106000	656,0	2332800	0,0	2559600	730,6
1429200	745,1	1656000	0,0	1882800	205,7	2109600	764,7	2336400	0,0	2563200	810,7
1432800	1001,0	1659600	43,9	1886400	106,6	2113200	899,9	2340000	0,0	2566800	881,1
1436400	878,2	1663200	148,4	1890000	55,0	2116800	948,8	2343600	0,0	2570400	596,4
1440000	866,4	1666800	301,8	1893600	14,5	2120400	982,4	2347200	4,4	2574000	514,4
1443600	749,8	1670400	481,5	1897200	0,0	2124000	1048,1	2350800	42,9	2577600	321,1
1447200	638,8	1674000	644,6	1900800	0,0	2127600	1013,5	2354400	158,2	2581200	80,5
1450800	443,4	1677600	650,6	1904400	0,0	2131200	727,1	2358000	313,1	2584800	22,5
1454400	203,9	1681200	694,0	1908000	0,0	2134800	467,3	2361600	498,2	2588400	0,0
1458000	73,9	1684800	680,8	1911600	0,0	2138400	633,3	2365200	513,5	2592000	0,0
1461600	19,3	1688400	247,8	1915200	0,0	2142000	473,9	2368800	575,2	2595600	0,0
1465200	0,0	1692000	205,9	1918800	9,3	2145600	263,5	2372400	551,8	2599200	0,0
1468800	0,0	1695600	603,2	1922400	29,5	2149200	51,5	2376000	947,7	2602800	0,0
1472400	0,0	1699200	716,1	1926000	30,8	2152800	19,5	2379600	966,8	2606400	0,0
1476000	0,0	1702800	371,8	1929600	43,0	2156400	0,0	2383200	1012,6	2610000	19,2
1479600	0,0	1706400	425,7	1933200	79,6	2160000	0,0	2386800	973,2	2613600	64,5
1483200	0,0	1710000	282,9	1936800	156,9	2163600	0,0	2390400	860,8	2617200	195,1
1486800	24,6	1713600	108,2	1940400	134,8	2167200	0,0	2394000	755,3	2620800	362,6
1490400	109,2	1717200	39,5	1944000	197,3	2170800	0,0	2397600	604,4	2624400	507,6
1494000	229,5	1720800	9,4	1947600	193,7	2174400	0,0	2401200	418,7	2628000	613,4
1497600	281,7	1724400	0,0	1951200	260,5	2178000	25,3	2404800	151,9	2631600	404,3
1501200	651,9	1728000	0,0	1954800	222,9	2181600	93,6	2408400	51,9	2635200	325,5
1504800	315,9	1731600	0,0	1958400	159,4	2185200	297,0	2412000	14,4	2638800	602,0
1508400	836,2	1735200	0,0	1962000	89,9	2188800	362,9	2415600	0,0	2642400	692,7
1512000	319,9	1738800	0,0	1965600	119,3	2192400	515,7	2419200	0,0	2646000	1018,6
1515600	598,6	1742400	0,0	1969200	90,3	2196000	536,7	2422800	0,0	2649600	734,9
1519200	521,4	1746000	11,2	1972800	61,9	2199600	865,9	2426400	0,0	2653200	783,3
1522800	147,6	1749600	53,1	1976400	51,3	2203200	880,3	2430000	0,0	2656800	183,6
1526400	299,8	1753200	135,7	1980000	11,4	2206800	890,1	2433600	0,0	2660400	94,0
1530000	153,4	1756800	115,1	1983600	0,0	2210400	756,1	2437200	9,1	2664000	257,4
1533600	473,8	1760400	147,5	1987200	0,0	2214000	814,8	2440800	23,4	2667600	65,2
1537200	357,3	1764000	187,8	1990800	0,0	2217600	795,9	2444400	46,1	2671200	35,9
1540800	92,0	1767600	334,9	1994400	0,0	2221200	774,2	2448000	35,1	2674800	0,0
1544400	48,4	1771200	167,3	1998000	0,0	2224800	660,0	2451600	116,7		
1548000	17,5	1774800	154,0	2001600	0,0	2228400	479,5	2455200	168,7		
1551600	0,0	1778400	154,4	2005200	20,4	2232000	293,0	2458800	285,6		
1555200	0,0	1782000	218,0	2008800	56,1	2235600	138,8	2462400	339,4		
1558800	0,0	1785600	235,9	2012400	145,8	2239200	31,9	2466000	496,7		
1562400	0,0	1789200	181,1	2016000	165,4	2242800	0,0	2469600	760,4		
1566000	0,0	1792800	123,9	2019600	258,9	2246400	0,0	2473200	322,2		
1569600	0,0	1796400	111,0	2023200	471,3	2250000	0,0	2476800	643,2		
1573200	16,6	1800000	49,0	2026800	453,4	2253600	0,0	2480400	440,8		
1576800	40,9	1803600	22,0	2030400	576,0	2257200	0,0	2484000	347,3		
1580400	104,4	1807200	4,5	2034000	758,7	2260800	0,0	2487600	308,6		
1584000	215,0	1810800	0,0	2037600	523,7	2264400	19,9	2491200	142,2		