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SR-LO-00417
JSC-16273

NASA CR:
160544

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A Joint Program for
Agriculture and
Resources Inventory
Surveys Through
Aerospace
Remote Sensing

January 1980

Supporting Research

| | |
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| (E90-10121) COMPOSITION AND ASSEMBLY OF A SPECTRAL DATA BASE FOR TRANSITION YEAR SPRING WHEAT BLIND SITES (Lockheed Engineering and Management) 114 p HC A06/NP A01 | N80-23747 Unclas 00121 |
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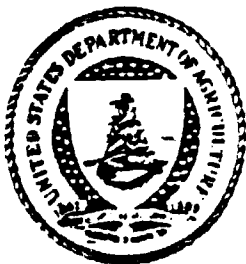
CSCL 02C G3/43

TECHNICAL REPORT

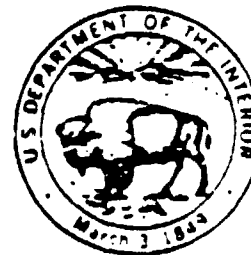
COMPOSITION AND ASSEMBLY OF A SPECTRAL DATA BASE
FOR TRANSITION YEAR SPRING WHEAT BLIND SITES

Volume I

M. H. Trenchard, M. L. Sestak, and M. C. Kinsler



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LOCKHEED ENGINEERING AND MANAGEMENT SERVICES COMPANY, INC.
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SR-LO-00417
JSC-16273

TECHNICAL REPORT
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Volume I

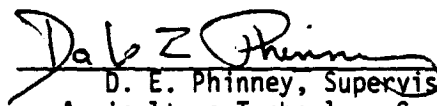
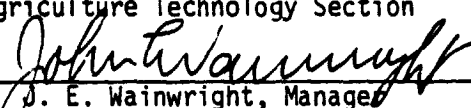
Job Order 73-312

This report describes Vegetation/Soils/Field Research activities
of the Supporting Research project of the AgRISTARS program.

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Under Contract NAS 9-15800

For

Earth Observations Division
Space and Life Sciences Directorate
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
LYNDON B. JOHNSON SPACE CENTER
HOUSTON TEXAS

January 1980

LEMSCO-14069

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1. INTRODUCTION

In 1979, Land Satellite (Landsat) spectral data, meteorological data, and ground-truth observation data for the Large Area Crop Inventory Experiment (LACIE) intensive test site (ITS) segments were compiled into a data base available to the users at the Laboratory for Applications of Remote Sensing (LARS) at Purdue University.¹ The effort to provide a comprehensive research data base for the development of hybrid spectral meteorological crop calendar and yield models is continuing in support of the Agriculture and Resources Inventory Surveys Through Remote Sensing (AgRISTARS) program within the Earth Observations Division, Space and Life Sciences Directorate at the Lyndon B. Johnson Space Center, National Aeronautics and Space Administration.

The spectral data for 35 LACIE Transition Year (TY) 1978 spring wheat blind site segments and the corresponding ground-truth data were processed and compiled in a single data set that complements the ITS data base. (See table 1-1). The ground truth includes periodic observations of crop development, plant height, and percentage of ground cover as well as ancillary information on cropping practices and final yield estimates. Meteorological data for the 1978 spring wheat data are not available at this time.

This document describes the assembly of the spectral and ground-truth data components of the TY spring wheat data set.

¹Trenchard, M. H.; Sestak, M. L.; Kinsler, M. C.; and Phinney, D. E.: Composition and Assembly of a Spectral-Met Data Base for Spring and Winter Wheat. LEC-13393 (JSC-14901), Vol. I, May 1979; Vol. II, June 1979.

TABLE 1-1.— TY SPRING WHEAT SEGMENTS

| Segment | County | State | No. of acquisitions | No. of fields |
|---------|-----------------|---------|---------------------|---------------|
| 1387 | Ramsey | N. Dak. | 6 | 15 |
| 1392 | Benson | N. Dak. | 5 | 15 |
| 1394 | Burke | N. Dak. | 13 | 12 |
| 1457 | Ward | N. Dak. | 6 | 15 |
| 1461 | Pierce | N. Dak. | 13 | 14 |
| 1467 | Towner | N. Dak. | 11 | 10 |
| 1472 | Barnes | N. Dak. | 6 | 12 |
| 1473 | Cass | N. Dak. | 7 | 13 |
| 1485 | Dewey | S. Dak. | 9 | 15 |
| 1518 | Roseau | Minn. | 9 | 15 |
| 1537 | McCone | Mont. | 10 | 5 |
| 1542 | Roosevelt | Mont. | 8 | 15 |
| 1544 | Sheridan | Mont. | 9 | 15 |
| 1553 | Carter | Mont. | 10 | 4 |
| 1566 | Grant | Minn. | 5 | 15 |
| 1584 | Pembina | N. Dak. | 6 | 15 |
| 1599 | Edmunds | S. Dak. | 6 | 14 |
| 1612 | McHenry | N. Dak. | 6 | 15 |
| 1619 | Grand Forks | N. Dak. | 7 | 15 |
| 1636 | Stutsman | N. Dak. | 11 | 15 |
| 1653 | Burleigh | N. Dak. | 12 | 15 |
| 1656 | Morton | N. Dak. | 7 | 15 |
| 1658 | Dickey | N. Dak. | 6 | 15 |
| 1664 | Sargent | N. Dak. | 10 | 15 |
| 1668 | Perkins | S. Dak. | 7 | 15 |
| 1676 | Brule | S. Dak. | 12 | 1 |
| 1755 | Jerauld | S. Dak. | 15 | 12 |
| 1811 | Kingsbury | S. Dak. | 12 | 15 |
| 1825 | Norman | Minn. | 11 | 15 |
| 1842 | Yellow Medicine | Minn. | 9 | 15 |
| 1909 | Kidder | N. Dak. | 5 | 15 |
| 1918 | Grant | N. Dak. | 5 | 15 |
| 1920 | Sioux | N. Dak. | 9 | 11 |
| 1924 | La Moure | N. Dak. | 12 | 11 |
| 1942 | Richland | Mont. | 8 | 7 |

2. COMPILATION PROCEDURE

Of the original 71 blind sites, 35 sites selected for the data base met the following criteria:

1. Existence of spring wheat observation fields in the segment.
2. Availability of 18-day ground-truth observations.
3. Observation field delineations available from the LACIE Accuracy Assessment system.
4. Completeness of the Landsat acquisition history.

The field delineations for each segment were coded, punched on cards, and transmitted to the LARS computer for temporary disk storage.

Landsat image unload tapes containing the spectral data were created at the Johnson Space Center and transmitted to LARS tapes. Satellite details listed by segment number and acquisition dates appear in table 2-1.

Software was developed to create the four-channel spectral data base. The software utilizes the observation field delineation data and the image tapes to compute the spectral four-channel means and standard deviations for each field and each acquisition of every segment selected. Unlike the software developed for LARSYS P1, which performed similar computations, the new software punches the data on cards in a predetermined format. The majority of the runs were made through the night batch machine. The new software proved to be highly compatible with this mode of operation. The format for the spectral data appears in table 2-2.

The corresponding ground-truth periodic observations were extracted from a tape compiled by Accuracy Assessment personnel. The tape included periodic observations for all wheat blind sites during TY. The format for these data appears in table 2-3.

TABLE 2-1.- SATELLITE DETAILS BY SEGMENT NUMBER AND ACQUISITION DATE

| Segment | Acquisition date | Satellite | Sun angle | Segment | Acquisition date | Satellite | Sun angle | Segment | Acquisition date | Satellite | Sun angle |
|---------|------------------|-----------|-----------|---------|------------------|-----------|-----------|---------|------------------|-----------|-----------|
| 1387 | 8135 | 2 | 50 | 1461 | 8209 | 2 | 49 | 1537 | 8122 | 2 | 48 |
| | 8136 | 2 | 50 | | 8217 | 3 | 50 | | 8141 | 2 | 52 |
| | 8154 | 2 | 53 | | 8218 | 3 | 50 | | 8159 | 2 | 54 |
| | 8216 | 3 | 51 | | 8236 | 3 | 43 | | 8194 | 2 | 52 |
| | 8252 | 3 | 41 | | 8263 | 2 | 36 | | 8195 | 2 | 52 |
| | 8270* | 3 | 35 | | | | | | 8213 | 2 | 49 |
| 1392 | 8136 | 2 | 51 | 1467 | 8136 | 2 | 50 | | 8221 | 3 | 50 |
| | 8154 | 2 | 53 | | 8137 | 2 | 51 | 8222 | 3 | 50 | |
| | 8190 | 2 | 53 | | 8154 | 2 | 53 | 8231* | 2 | 45 | |
| | 8208 | 2 | 50 | | 8155 | 2 | 53 | 8266 | 2 | 36 | |
| | 8217* | 3 | 51 | | 8190 | 2 | 52 | | | | |
| | | | | | 8191 | 2 | 52 | 1542 | 8122 | 2 | 47 |
| 1394 | 8120 | 2 | 47 | 8199 | 3 | 54 | 8141 | | 2 | 51 | |
| | 8156 | 2 | 53 | 8200 | 3 | 54 | 8159 | | 2 | 53 | |
| | 8174* | 2 | 53 | 8208 | 2 | 50 | 8176 | | 2 | 53 | |
| | 8175 | 2 | 53 | 8217 | 3 | 50 | 8194* | | 2 | 52 | |
| | 8211 | 2 | 49 | 8218* | 3 | 50 | 8222 | | 3 | 49 | |
| | 8219 | 3 | 50 | | | | 8231 | 2 | 45 | | |
| 1457 | 8156 | 2 | 53 | 1472 | 8117 | 2 | 46 | 8258 | 3 | 39 | |
| | 8174* | 2 | 53 | | 8135 | 2 | 51 | 1544 | 8104 | 2 | 42 |
| | 8228 | 2 | 46 | | 8216 | 3 | 51 | | 8122 | 2 | 47 |
| | 8246 | 2 | 41 | | 8243* | 2 | 42 | | 8140 | 2 | 51 |
| | 8264 | 2 | 35 | | 8252 | 3 | 43 | | 8158 | 2 | 53 |
| | 8273 | 3 | 34 | | 8270 | 3 | 36 | | 8176 | 2 | 53 |
| | | | | | | 8221 | 3 | | 49 | | |
| 1461 | 8118 | 2 | 46 | 1473 | 8116 | 2 | 46 | 8230* | 2 | 45 | |
| | 8136 | 2 | 50 | | 8197 | 3 | 55 | 8239 | 3 | 45 | |
| | 8137 | 2 | 51 | | 8207 | 2 | 50 | 8266 | 2 | 35 | |
| | 8154 | 2 | 53 | | 8224* | 2 | 47 | 1553 | 8103 | 2 | 43 |
| | 8155 | 2 | 53 | | 8242 | 2 | 43 | | 8122 | 2 | 48 |
| | 8190 | 2 | 52 | | 8251 | 3 | 42 | | 8140 | 2 | 52 |
| 8199 | 3 | 54 | 8269 | 3 | 36 | 8193 | 2 | | 53 | | |
| 8208* | 2 | 50 | | | | 8194 | 2 | | 53 | | |
| | | | 1518 | 8116 | 2 | 45 | 8203 | | 3 | 54 | |
| | | | | 8135 | 2 | 50 | 8211* | 2 | 50 | | |
| | | | | 8153* | 2 | 53 | 8220 | 3 | 51 | | |
| | | | | 8188 | 2 | 52 | 8247 | 2 | 42 | | |
| | | | | 8206 | 2 | 50 | 8266 | 2 | 36 | | |
| | | | | 8224 | 2 | 46 | | | | | |
| | | | 8243 | 2 | 42 | 1566 | 8115 | 2 | 46 | | |
| | | | 8251 | 3 | 41 | | | | | | |
| | | | 8260 | 2 | 37 | | | | | | |

*Indicates Accuracy Assessment's base date used for digitization.

TABLE 2-1.- Continued.

| Segment | Acquisition date | Satellite | Sun angle | Segment | Acquisition date | Satellite | Sun angle | Segment | Acquisition date | Satellite | Sun angle |
|---------|------------------|-----------|-----------|---------|------------------|-----------|-----------|---------|------------------|-----------|-----------|
| 1566 | 8133 | 2 | 51 | 1636 | 8243 | 2 | 42 | 1668 | 8174 | 2 | 54 |
| | 8169* | 2 | 54 | | 8270 | 3 | 36 | | 8219 | 3 | 51 |
| | 8195 | 3 | 56 | 1653 | 8101 | 2 | 41 | | 8228 | 2 | 47 |
| | 8232 | 3 | 48 | | 8119 | 2 | 47 | | 8246* | 2 | 42 |
| 1584 | 8117 | 2 | 46 | 8136 | 2 | 51 | 1676 | 8117 | 2 | 48 | |
| | 8135 | 2 | 50 | 8137 | 2 | 51 | | 8134 | 2 | 52 | |
| | 8153 | 2 | 53 | 8154 | 2 | 53 | | 8135 | 2 | 52 | |
| | 8198 | 3 | 54 | 8155 | 2 | 54 | | 8207 | 2 | 52 | |
| | 8216 | 3 | 51 | 8190 | 2 | 53 | | 8215 | 3 | 53 | |
| | 8243* | 2 | 42 | 8191* | 2 | 53 | | 8216 | 3 | 53 | |
| 1599 | 8117 | 2 | 47 | 8199 | 3 | 54 | 8224* | 2 | 49 | | |
| | 8135 | 2 | 51 | 8208 | 2 | 50 | 8234 | 3 | 49 | | |
| | 8207* | 2 | 51 | 8209 | 2 | 50 | 8242 | 2 | 45 | | |
| | 8243 | 2 | 43 | 8217 | 3 | 51 | 8243 | 2 | 44 | | |
| | 8252 | 3 | 43 | 1656 | 8101 | 2 | 41 | 8251 | 3 | 45 | |
| 8270 | 3 | 37 | 8137 | | 2 | 51 | 8270 | 3 | 39 | | |
| 1612 | 8118 | 2 | 47 | | 8155 | 2 | 54 | 1755 | 8117 | 2 | 48 |
| | 8137 | 2 | 51 | | 8191 | 2 | 53 | | 8134 | 2 | 52 |
| | 8155 | 2 | 54 | 8209 | 2 | 50 | 8135 | | 2 | 52 | |
| | 8199 | 3 | 54 | 8218 | 3 | 52 | 8153 | | 2 | 54 | |
| | 8218 | 3 | 51 | 8263* | 2 | 36 | 8197 | | 3 | 56 | |
| 1619 | 8135 | 2 | 50 | 1658 | 8117 | 2 | 47 | 8198 | 3 | 56 | |
| | 8198 | 3 | 54 | | 8135 | 2 | 51 | 8207* | 2 | 51 | |
| | 8207* | 2 | 50 | | 8207 | 2 | 51 | 8215 | 3 | 53 | |
| | 8216 | 3 | 51 | | 8243* | 2 | 43 | 8216 | 3 | 53 | |
| | 8243 | 2 | 42 | | 8252 | 3 | 43 | 8225 | 2 | 48 | |
| 1636 | 8117 | 2 | 46 | 8270 | 3 | 37 | 1664 | 8234 | 3 | 48 | |
| | 8135 | 2 | 51 | 1668 | 8156 | 2 | | 54 | 8243 | 2 | 44 |
| | 8154 | 2 | 53 | | 8117 | 2 | | 47 | 8251 | 3 | 44 |
| | 8190 | 2 | 53 | | 8134 | 2 | | 51 | 8252 | 3 | 43 |
| | 8207* | 2 | 50 | | 8135 | 2 | | 51 | 8270 | 3 | 38 |
| 8208 | 2 | 50 | 8206 | | 2 | 51 | 1811 | 8115 | 2 | 47 | |
| 8216 | 3 | 51 | 8233 | 3 | 48 | 8133 | | 2 | 52 | | |
| 8217 | 3 | 51 | 8242 | 2 | 43 | 8134* | | 2 | 52 | | |
| 8226 | 2 | 47 | 8243* | 2 | 43 | 8197 | | 3 | 56 | | |
| | | | 8251 | 3 | 43 | 8215 | | 3 | 53 | | |
| | | | 8269 | 3 | 37 | | | | | | |
| | | | 8270 | 3 | 37 | | | | | | |

*Indicates Accuracy Assessment's base date used for digitization.

TABLE 2-1.- Concluded.

| Segment | Acquisition date | Satellite | Sun angle | Segment | Acquisition date | Satellite | Sun angle |
|---------|------------------|-----------|-----------|---------|------------------|-----------|-----------|
| 1811 | 8224 | 2 | 48 | 1920 | 8136 | 2 | 52 |
| | 8232 | 3 | 49 | | 8137 | 2 | 52 |
| | 8233 | 3 | 49 | | 8199 | 3 | 55 |
| | 8250 | 3 | 44 | | 8209* | 2 | 51 |
| | 8251 | 3 | 44 | | 8217 | 3 | 52 |
| | 8268 | 3 | 39 | | 8218 | 3 | 52 |
| | 8269 | 3 | 38 | | 8236 | 3 | 47 |
| 1825 | 8097 | 2 | 40 | 1924 | 8135 | 2 | 51 |
| | 8133 | 2 | 50 | | 8136 | 2 | 51 |
| | 8169 | 2 | 54 | | 8154 | 2 | 54 |
| | 8196 | 3 | 55 | | 8198 | 3 | 55 |
| | 8206* | 2 | 51 | | 8207 | 2 | 51 |
| | 8223 | 2 | 47 | | 8208* | 2 | 50 |
| | 8224 | 2 | 47 | | 8216 | 3 | 52 |
| | 8232 | 3 | 47 | | 8217 | 3 | 52 |
| | 8242 | 2 | 43 | | 8226 | 2 | 47 |
| | 8250 | 3 | 42 | | 8243 | 2 | 43 |
| | 8251 | 3 | 42 | | 8252 | 3 | 43 |
| 1842 | 8133 | 2 | 52 | 1942 | 8104 | 2 | 42 |
| | 8196 | 3 | 56 | | 8122 | 2 | 48 |
| | 8205* | 2 | 52 | | 8176 | 2 | 54 |
| | 8223 | 2 | 48 | | 8194 | 2 | 52 |
| | 8241 | 2 | 44 | | 8221 | 3 | 50 |
| | 8249 | 3 | 44 | | 8230 | 2 | 46 |
| | 8258 | 2 | 40 | | 8248 | 2 | 41 |
| | 8267 | 3 | 39 | | 8266* | 2 | 36 |
| 1909 | 8136 | 2 | 51 | 1485 | 8101 | 2 | 42 |
| | 8154 | 2 | 53 | | 8137 | 2 | 52 |
| | 8190 | 2 | 53 | | 8154 | 2 | 54 |
| | 8208 | 2 | 50 | | 8199 | 3 | 55 |
| | 8217* | 3 | 51 | | 8208 | 3 | 51 |
| 1918 | 8137 | 2 | 52 | 8217 | 3 | 52 | |
| | 8209 | 2 | 51 | 8218 | 3 | 52 | |
| | 8218 | 3 | 52 | 8236 | 3 | 47 | |
| | 8236* | 3 | 47 | 8263 | 2 | 37 | |
| | 8263 | 2 | 37 | | | | |
| 1920 | 8101 | 2 | 42 | | | | |

*Indicates Accuracy Assessment's base date used for digitization.

TABLE 2-2.— FORMAT OF SPECTRAL DATA BASE

(a) Card image types

| Type | Definition |
|---------|--|
| Segment | Contains segment statistics only |
| Field | Contains individual field statistics and segment means |

(b) Format for all cards

[For assembling, one segment card precedes a set of field cards for each acquisition.]

| Column numbers | Definition | Fortran format |
|----------------|---|----------------|
| 1 through 4 | Segment number | I4 |
| 5 through 8 | Acquisition date (Julian) | I4 |
| 9 | First digit of segment number or code for crop type of field | A2 |
| 10 through 12 | Last three digits of segment number or three-digit field number | I2 |
| 13 through 18 | Channel 1 mean of segment or field | F6.2 |
| 19 through 24 | Channel 2 mean of segment or field | F6.2 |
| 25 through 30 | Channel 3 mean of segment or field | F6.2 |
| 31 through 36 | Channel 4 mean of segment or field | F6.2 |
| 37 through 41 | Channel 1 standard deviation of segment or field | F5.2 |
| 42 through 46 | Channel 2 standard deviation of segment or field | F5.2 |
| 47 through 51 | Channel 3 standard deviation of segment or field | F5.2 |
| 52 through 56 | Channel 4 standard deviation of segment or field | F5.2 |
| 57 through 62 | Channel 1 mean of segment only | F6.2 |
| 63 through 68 | Channel 2 mean of segment only | F6.2 |
| 69 through 74 | Channel 3 mean of segment only | F6.2 |
| 75 through 80 | Channel 4 mean of segment only | F6.2 |

TABLE 2-3.— FORMAT OF TY PERIODIC OBSERVATIONS DATA BASE

| Column | Definition |
|---------------|---|
| 1 through 4 | Four-digit segment number |
| 6 through 10 | Date of satellite pass |
| 12 and 13 | Field number |
| 15 | Crop type (S, spring wheat; W, winter wheat; M, mixed wheat; O, oats; R, rye; B, barley) |
| 17 and 18 | Plant height (in inches) |
| 20 | Percentage of ground cover code (1 = 0 to 19%); (2 = 20 to 39%); (3 = 40 to 59%); (4 = 60 to 79%); (5 = 80 to 100%) |
| 22 through 25 | Feekes growth stage code |
| 27 and 28 | Drill spacing in inches (first acquisition only) |
| 30 and 31 | Yield (in bushels) for last acquisition only |
| 33 | Code A, abandoned; H, harvested; N, not planted as required |
| 36 through 80 | Additional comments |

A flagging system was developed to warn users of potential data problems. Each Landsat acquisition date was quality checked and flagged accordingly for clouds/shadows, haze, delineation errors, narrow fields, and misregistration. This was accomplished by visual screening of the production film converter (PFC) Product 1. The format of these data appears in table 2-4. The flag codes are: C for clouds and or shadow, H for haze, S for narrow fields, P for delineation problems, and R for misregistration. It is the users' responsibility to ascertain whether or not the flagged problem will affect the intended use of the spectral data.

TABLE 2-4.— FORMAT OF TY SPRING WHEAT FLAGS DATA BASE

| Column | Item |
|-------------|--|
| 1 through 4 | Segment number |
| 5 through 8 | Acquisition date |
| 10 | Flag code for the first field in the segment |
| 12 | Flag code for the second field in the segment |
| 14 | Flag code for the third field in the segment |
| 16 | Flag code for the fourth field in the segment |
| 18 | Flag code for the fifth field in the segment |
| . | |
| . | |
| . | Flag code for the <i>n</i> th field in the segment |

The components of the data base, spectral data and ground truth, were assembled as two separate files on a single library tape, LARS 5147. The format of this tape is described in table 2-5. A dump of the contents of these files is found in appendixes A, B, and C.

TABLE 2-5.— DATA BASE COMPONENTS ON LARS TAPE 5147

[Two files in conversational monitor system format]

| File | Name | Type | Card images |
|------|------|----------|-------------|
| 1 | TYSW | SPECTRAL | 4185 |
| 2 | TYSW | PERIOBS | 3252 |
| 3 | TYSW | FLAGS | 192 |

APPENDIX A
SPECTRAL DATA BASE

138781 138782 138783 138784 138785 138786 138787 138788 138789 138790 138791 138792 138793 138794 138795 138796 138797 138798 138799 138800 138801 138802 138803 138804 138805 138806 138807 138808 138809 138810 138811 138812 138813 138814 138815 138816 138817 138818 138819 138820 138821 138822 138823 138824 138825 138826 138827 138828 138829 138830 138831 138832 138833 138834 138835 138836 138837 138838 138839 138840 138841 138842 138843 138844 138845 138846 138847 138848 138849 138850 138851 138852 138853 138854 138855 138856 138857 138858 138859 138860 138861 138862 138863 138864 138865 138866 138867 138868 138869 138870 138871 138872 138873 138874 138875 138876 138877 138878 138879 138880 138881 138882 138883 138884 138885 138886 138887 138888 138889 138890 138891 138892 138893 138894 138895 138896 138897 138898 138899 138900 138901 138902 138903 138904 138905 138906 138907 138908 138909 138910 138911 138912 138913 138914 138915 138916 138917 138918 138919 138920 138921 138922 138923 138924 138925 138926 138927 138928 138929 138930 138931 138932 138933 138934 138935 138936 138937 138938 138939 138940 138941 138942 138943 138944 138945 138946 138947 138948 138949 138950 138951 138952 138953 138954 138955 138956 138957 138958 138959 138960 138961 138962 138963 138964 138965 138966 138967 138968 138969 138970 138971 138972 138973 138974 138975 138976 138977 138978 138979 138980 138981 138982 138983 138984 138985 138986 138987 138988 138989 138990 138991 138992 138993 138994 138995 138996 138997 138998 138999 139000

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|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 166781 | 166782 | 166783 | 166784 | 166785 | 166786 | 166787 | 166788 | 166789 | 166790 | 166791 | 166792 | 166793 | 166794 | 166795 | 166796 | 166797 | 166798 | 166799 | 166800 | 166801 | 166802 | 166803 | 166804 | 166805 | 166806 | 166807 | 166808 | 166809 | 166810 | 166811 | 166812 | 166813 | 166814 | 166815 | 166816 | 166817 | 166818 | 166819 | 166820 | 166821 | 166822 | 166823 | 166824 | 166825 | 166826 | 166827 | 166828 | 166829 | 166830 | 166831 | 166832 | 166833 | 166834 | 166835 | 166836 | 166837 | 166838 | 166839 | 166840 | 166841 | 166842 | 166843 | 166844 | 166845 | 166846 | 166847 | 166848 | 166849 | 166850 | 166851 | 166852 | 166853 | 166854 | 166855 | 166856 | 166857 | 166858 | 166859 | 166860 | 166861 | 166862 | 166863 | 166864 | 166865 | 166866 | 166867 | 166868 | 166869 | 166870 | 166871 | 166872 | 166873 | 166874 | 166875 | 166876 | 166877 | 166878 | 166879 | 166880 | 166881 | 166882 | 166883 | 166884 | 166885 | 166886 | 166887 | 166888 | 166889 | 166890 | 166891 | 166892 | 166893 | 166894 | 166895 | 166896 | 166897 | 166898 | 166899 | 166900 | 166901 | 166902 | 166903 | 166904 | 166905 | 166906 | 166907 | 166908 | 166909 | 166910 | 166911 | 166912 | 166913 | 166914 | 166915 | 166916 | 166917 | 166918 | 166919 | 166920 | 166921 | 166922 | 166923 | 166924 | 166925 | 166926 | 166927 | 166928 | 166929 | 166930 | 166931 | 166932 | 166933 | 166934 | 166935 | 166936 | 166937 | 166938 | 166939 | 166940 | 166941 | 166942 | 166943 | 166944 | 166945 | 166946 | 166947 | 166948 | 166949 | 166950 | 166951 | 166952 | 166953 | 166954 | 166955 | 166956 | 166957 | 166958 | 166959 | 166960 | 166961 | 166962 | 166963 | 166964 | 166965 | 166966 | 166967 | 166968 | 166969 | 166970 | 166971 | 166972 | 166973 | 166974 | 166975 | 166976 | 166977 | 166978 | 166979 | 166980 | 166981 | 166982 | 166983 | 166984 | 166985 | 166986 | 166987 | 166988 | 166989 | 166990 | 166991 | 166992 | 166993 | 166994 | 166995 | 166996 | 166997 | 166998 | 166999 | 167000 |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|

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|---------------|--------|--------|---------|---------|-------|-------|-------|-------|-------|-------|-------|-------|
| 147382075019 | 20.49 | 20.71 | 38.63 | 17.91 | 1.07 | 1.62 | 4.17 | 2.16 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382075027 | 18.66 | 18.00 | 38.87 | 19.14 | 1.47 | 1.33 | 4.13 | 2.13 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382075025 | 19.07 | 18.39 | 43.75 | 20.34 | 1.75 | 1.50 | 4.47 | 2.20 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382075024 | 19.35 | 18.16 | 45.19 | 21.84 | 1.34 | 1.33 | 4.25 | 2.00 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382075026 | 22.00 | 20.31 | 51.65 | 22.00 | 2.12 | 2.02 | 4.63 | 2.27 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382075017 | 22.46 | 20.77 | 54.42 | 22.74 | 2.22 | 2.06 | 4.71 | 2.33 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382075016 | 22.65 | 20.52 | 52.03 | 21.90 | 2.08 | 1.95 | 4.58 | 2.22 | 22.38 | 21.47 | 51.68 | 24.23 |
| 1473822241473 | 22.99 | 20.88 | 60.00 | 23.82 | 2.33 | 2.16 | 4.96 | 2.41 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224030 | 33.99 | 33.12 | 60.00 | 23.82 | 2.33 | 2.16 | 4.96 | 2.41 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224023 | 37.17 | 35.32 | 62.07 | 25.07 | 2.66 | 2.49 | 5.34 | 2.60 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224018 | 40.67 | 38.83 | 66.55 | 26.36 | 3.33 | 3.16 | 6.15 | 3.38 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224020 | 42.82 | 41.03 | 68.03 | 27.73 | 3.64 | 3.47 | 6.71 | 3.78 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224019 | 44.17 | 42.33 | 70.09 | 28.44 | 3.95 | 3.78 | 7.34 | 4.10 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224027 | 45.52 | 43.76 | 74.93 | 31.15 | 4.57 | 4.40 | 8.08 | 4.50 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224025 | 46.90 | 45.19 | 76.57 | 33.88 | 5.14 | 4.97 | 8.81 | 4.83 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224024 | 48.31 | 46.58 | 81.74 | 37.44 | 5.50 | 5.33 | 9.40 | 5.14 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224022 | 49.71 | 47.98 | 85.91 | 40.74 | 6.09 | 5.88 | 10.22 | 5.50 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224029 | 51.13 | 49.36 | 91.58 | 44.81 | 6.41 | 6.20 | 10.79 | 5.88 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224017 | 52.52 | 50.72 | 93.34 | 48.33 | 6.93 | 6.72 | 11.37 | 6.20 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224016 | 53.99 | 52.13 | 95.55 | 51.81 | 7.41 | 7.20 | 12.00 | 6.58 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224014 | 55.44 | 53.52 | 98.34 | 55.54 | 7.94 | 7.73 | 12.68 | 6.93 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224013 | 56.88 | 54.91 | 101.11 | 59.33 | 8.47 | 8.26 | 13.33 | 7.29 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224012 | 58.33 | 56.30 | 104.44 | 63.33 | 9.00 | 8.83 | 14.00 | 7.60 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224011 | 59.77 | 57.69 | 108.33 | 67.66 | 9.53 | 9.36 | 14.66 | 7.94 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224010 | 61.22 | 59.08 | 112.77 | 72.33 | 10.06 | 9.89 | 15.33 | 8.26 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224009 | 62.67 | 60.47 | 117.77 | 77.33 | 10.59 | 10.42 | 16.00 | 8.58 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224008 | 64.11 | 61.86 | 123.33 | 82.66 | 11.12 | 10.95 | 16.66 | 8.93 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224007 | 65.56 | 63.25 | 129.33 | 88.33 | 11.65 | 11.48 | 17.33 | 9.26 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224006 | 67.00 | 64.64 | 135.77 | 94.33 | 12.18 | 12.01 | 18.00 | 9.58 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224005 | 68.44 | 66.03 | 142.77 | 100.66 | 12.71 | 12.54 | 18.66 | 9.93 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224004 | 69.88 | 67.42 | 150.33 | 107.33 | 13.24 | 13.07 | 19.33 | 10.26 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224003 | 71.33 | 68.81 | 158.33 | 114.33 | 13.77 | 13.60 | 20.00 | 10.58 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224002 | 72.77 | 70.20 | 166.77 | 121.66 | 14.30 | 14.13 | 20.66 | 10.93 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224001 | 74.22 | 71.59 | 175.77 | 129.33 | 14.83 | 14.66 | 21.33 | 11.26 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 75.67 | 72.98 | 185.33 | 137.33 | 15.36 | 15.19 | 22.00 | 11.58 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 77.11 | 74.37 | 195.77 | 145.66 | 15.89 | 15.72 | 22.66 | 11.93 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 78.56 | 75.76 | 206.77 | 154.33 | 16.42 | 16.25 | 23.33 | 12.26 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 80.00 | 77.15 | 218.33 | 163.33 | 16.95 | 16.78 | 24.00 | 12.58 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 81.44 | 78.54 | 230.77 | 172.66 | 17.48 | 17.31 | 24.66 | 12.93 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 82.88 | 79.93 | 244.33 | 182.33 | 18.01 | 17.84 | 25.33 | 13.26 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 84.33 | 81.32 | 258.77 | 192.33 | 18.54 | 18.37 | 26.00 | 13.58 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 85.77 | 82.71 | 274.33 | 202.66 | 19.07 | 18.90 | 26.66 | 13.93 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 87.22 | 84.10 | 290.77 | 213.33 | 19.60 | 19.43 | 27.33 | 14.26 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 88.67 | 85.49 | 308.33 | 224.33 | 20.13 | 19.96 | 28.00 | 14.58 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 90.11 | 86.88 | 327.33 | 235.66 | 20.66 | 20.49 | 28.66 | 14.93 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 91.56 | 88.27 | 347.77 | 247.33 | 21.19 | 21.02 | 29.33 | 15.26 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 93.00 | 89.66 | 369.33 | 259.33 | 21.72 | 21.55 | 30.00 | 15.58 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 94.44 | 91.05 | 392.77 | 271.66 | 22.25 | 22.08 | 30.66 | 15.93 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 95.88 | 92.44 | 418.33 | 284.33 | 22.78 | 22.61 | 31.33 | 16.26 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 97.33 | 93.83 | 445.77 | 297.33 | 23.31 | 23.14 | 32.00 | 16.58 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 98.77 | 95.22 | 474.33 | 311.66 | 23.84 | 23.67 | 32.66 | 16.93 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 100.22 | 96.61 | 504.33 | 326.33 | 24.37 | 24.20 | 33.33 | 17.26 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 101.67 | 98.00 | 535.77 | 341.66 | 24.90 | 24.73 | 34.00 | 17.58 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 103.11 | 99.39 | 568.33 | 357.33 | 25.43 | 25.26 | 34.66 | 17.93 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 104.56 | 100.78 | 602.77 | 373.33 | 25.96 | 25.79 | 35.33 | 18.26 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 106.00 | 102.17 | 638.33 | 389.66 | 26.49 | 26.32 | 36.00 | 18.58 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 107.44 | 103.56 | 675.77 | 406.33 | 27.02 | 26.85 | 36.66 | 18.93 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 108.88 | 104.95 | 714.33 | 423.66 | 27.55 | 27.38 | 37.33 | 19.26 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 110.33 | 106.34 | 754.33 | 441.66 | 28.08 | 27.91 | 38.00 | 19.58 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 111.77 | 107.73 | 795.77 | 460.33 | 28.61 | 28.44 | 38.66 | 19.93 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 113.22 | 109.12 | 838.33 | 479.66 | 29.14 | 28.97 | 39.33 | 20.26 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 114.67 | 110.51 | 882.77 | 499.33 | 29.67 | 29.50 | 40.00 | 20.58 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 116.11 | 111.90 | 928.33 | 519.66 | 30.20 | 30.03 | 40.66 | 20.93 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 117.56 | 113.29 | 975.77 | 540.33 | 30.73 | 30.56 | 41.33 | 21.26 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 119.00 | 114.68 | 1024.33 | 561.66 | 31.26 | 31.09 | 42.00 | 21.58 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 120.44 | 116.07 | 1074.33 | 583.66 | 31.79 | 31.62 | 42.66 | 21.93 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 121.88 | 117.46 | 1125.77 | 606.33 | 32.32 | 32.15 | 43.33 | 22.26 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 123.33 | 118.85 | 1178.33 | 629.66 | 32.85 | 32.68 | 44.00 | 22.58 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 124.77 | 120.24 | 1232.77 | 653.66 | 33.38 | 33.21 | 44.66 | 22.93 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 126.22 | 121.63 | 1288.33 | 678.33 | 33.91 | 33.74 | 45.33 | 23.26 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 127.67 | 123.02 | 1345.77 | 703.66 | 34.44 | 34.27 | 46.00 | 23.58 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 129.11 | 124.41 | 1404.33 | 729.66 | 34.97 | 34.80 | 46.66 | 23.93 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 130.56 | 125.80 | 1464.33 | 756.33 | 35.50 | 35.33 | 47.33 | 24.26 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 132.00 | 127.19 | 1525.77 | 783.66 | 36.03 | 35.86 | 48.00 | 24.58 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 133.44 | 128.58 | 1588.33 | 811.66 | 36.56 | 36.39 | 48.66 | 24.93 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 134.88 | 130.00 | 1652.77 | 840.33 | 37.09 | 36.92 | 49.33 | 25.26 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 136.33 | 131.39 | 1718.33 | 869.66 | 37.62 | 37.45 | 50.00 | 25.58 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 137.77 | 132.78 | 1785.77 | 900.33 | 38.15 | 37.98 | 50.66 | 25.93 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 139.22 | 134.17 | 1854.33 | 931.66 | 38.68 | 38.51 | 51.33 | 26.26 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 140.67 | 135.56 | 1924.33 | 963.66 | 39.21 | 39.04 | 52.00 | 26.58 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 142.11 | 136.95 | 1995.77 | 996.33 | 39.74 | 39.57 | 52.66 | 26.93 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 143.56 | 138.34 | 2068.33 | 1030.33 | 40.27 | 40.10 | 53.33 | 27.26 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 145.00 | 139.73 | 2142.77 | 1065.66 | 40.80 | 40.63 | 54.00 | 27.58 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 146.44 | 141.12 | 2218.33 | 1102.33 | 41.33 | 41.16 | 54.66 | 27.93 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 147.88 | 142.51 | 2295.77 | 1140.33 | 41.86 | 41.69 | 55.33 | 28.26 | 22.38 | 21.47 | 51.68 | 24.23 |
| 147382224000 | 149.33 | 143.90 | | | | | | | | | | |

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|-------|----------|-------|-------|-------|-------|------|------|------|------|-------|-------|-------|-------|
| 14854 | 1015023 | 18.71 | 21.19 | 20.71 | 9.05 | 1.49 | 1.63 | 2.03 | 0.92 | 20.85 | 23.05 | 26.30 | 11.44 |
| 14854 | 1371485 | 28.24 | 27.08 | 46.54 | 20.42 | 1.85 | 6.48 | 8.95 | 4.62 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1375025 | 29.59 | 32.43 | 40.27 | 17.38 | 1.89 | 3.43 | 5.07 | 2.51 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1375026 | 29.62 | 30.67 | 44.88 | 14.54 | 2.04 | 3.06 | 5.60 | 2.50 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1375027 | 29.00 | 30.50 | 41.04 | 18.09 | 1.20 | 2.20 | 6.71 | 2.22 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1375028 | 23.79 | 24.07 | 35.00 | 14.47 | 2.81 | 3.92 | 6.04 | 3.08 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1375018 | 23.42 | 24.61 | 46.71 | 14.32 | 2.92 | 5.93 | 8.12 | 4.56 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1375028 | 24.37 | 24.37 | 37.46 | 15.77 | 2.72 | 3.46 | 6.70 | 3.41 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1375016 | 28.53 | 30.20 | 41.54 | 17.40 | 2.84 | 5.71 | 5.95 | 3.33 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1375024 | 31.44 | 34.44 | 42.33 | 17.44 | 2.27 | 4.01 | 3.04 | 1.74 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1375030 | 27.28 | 38.82 | 39.27 | 10.28 | 3.73 | 4.49 | 8.82 | 1.44 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1375017 | 30.55 | 33.53 | 34.04 | 10.73 | 2.04 | 3.37 | 3.37 | 1.84 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1375020 | 26.17 | 29.96 | 33.41 | 14.44 | 2.10 | 2.29 | 4.54 | 2.22 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1375029 | 29.30 | 29.65 | 32.44 | 14.01 | 2.64 | 2.45 | 5.54 | 2.22 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1375019 | 29.35 | 31.33 | 31.33 | 13.12 | 2.14 | 1.62 | 5.06 | 2.22 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1375021 | 33.33 | 36.64 | 33.65 | 13.14 | 2.76 | 1.31 | 2.03 | 2.03 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1375023 | 27.00 | 29.29 | 33.75 | 14.24 | 1.87 | 2.33 | 2.99 | 2.33 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1541485 | 27.44 | 23.68 | 52.75 | 2.00 | 1.56 | 1.14 | 1.52 | 2.74 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1545025 | 27.13 | 24.87 | 24.01 | 2.39 | 2.82 | 3.20 | 3.20 | 3.20 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1545026 | 26.63 | 26.58 | 47.42 | 21.21 | 2.53 | 1.48 | 2.50 | 1.10 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1545027 | 25.22 | 22.77 | 47.42 | 22.50 | 1.84 | 3.56 | 5.57 | 2.89 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1545028 | 27.72 | 24.44 | 34.12 | 10.77 | 2.10 | 3.57 | 4.04 | 1.57 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1545018 | 26.55 | 25.61 | 49.35 | 22.10 | 2.97 | 4.73 | 6.21 | 3.47 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1545028 | 27.34 | 27.46 | 41.07 | 18.26 | 2.27 | 3.62 | 9.11 | 4.94 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1545016 | 27.43 | 24.89 | 44.23 | 21.34 | 1.99 | 2.39 | 3.56 | 1.14 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1545024 | 27.74 | 39.38 | 44.50 | 15.13 | 1.67 | 1.44 | 3.81 | 1.44 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1545030 | 26.11 | 25.81 | 41.11 | 18.30 | 2.02 | 3.40 | 8.44 | 4.07 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1545017 | 28.61 | 29.05 | 44.75 | 22.27 | 3.71 | 3.44 | 4.44 | 2.43 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1545020 | 26.35 | 29.91 | 41.20 | 20.43 | 3.61 | 3.65 | 3.42 | 2.35 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1545029 | 27.43 | 26.00 | 41.51 | 18.18 | 2.86 | 5.07 | 5.64 | 2.89 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1545019 | 28.24 | 27.68 | 40.35 | 17.91 | 1.15 | 3.50 | 7.74 | 3.34 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1545021 | 28.44 | 26.06 | 44.11 | 21.18 | 2.44 | 3.70 | 5.61 | 3.07 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1545023 | 29.10 | 45.81 | 44.09 | 37.81 | 4.39 | 2.31 | 1.07 | 2.74 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 14941485 | 29.40 | 14.77 | 41.68 | 21.72 | 3.48 | 7.24 | 4.08 | 4.32 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494025 | 14.44 | 19.85 | 34.30 | 21.72 | 1.31 | 1.87 | 3.20 | 1.44 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494026 | 20.42 | 18.67 | 38.58 | 20.75 | 2.45 | 2.22 | 2.04 | 1.24 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494027 | 21.54 | 14.64 | 40.45 | 21.23 | 1.56 | 1.47 | 1.74 | 1.15 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494028 | 21.35 | 14.07 | 40.81 | 21.37 | 1.11 | 2.06 | 2.24 | 1.36 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494018 | 20.13 | 16.24 | 43.77 | 20.42 | 2.04 | 3.74 | 2.59 | 1.34 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494028 | 21.34 | 18.79 | 43.04 | 22.45 | 1.33 | 2.32 | 2.76 | 1.44 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494016 | 21.65 | 20.47 | 39.82 | 20.77 | 1.33 | 1.74 | 2.84 | 1.78 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494024 | 22.33 | 20.03 | 43.03 | 22.62 | 1.46 | 1.39 | 2.41 | 1.04 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494030 | 19.85 | 14.72 | 49.23 | 27.04 | 1.11 | 1.76 | 5.35 | 3.65 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494017 | 20.39 | 16.98 | 42.25 | 22.48 | 1.13 | 1.75 | 2.80 | 1.38 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494020 | 21.22 | 18.48 | 41.70 | 21.46 | 1.41 | 1.31 | 4.39 | 1.44 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494029 | 20.12 | 16.14 | 45.34 | 25.34 | 1.29 | 1.86 | 3.52 | 2.16 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494019 | 22.65 | 17.15 | 53.24 | 29.76 | 3.49 | 4.01 | 4.01 | 2.70 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494021 | 23.71 | 23.24 | 34.44 | 20.35 | 1.46 | 3.55 | 3.01 | 3.10 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494023 | 21.45 | 14.02 | 44.75 | 23.52 | 0.97 | 1.80 | 2.20 | 1.23 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494025 | 23.44 | 21.51 | 44.95 | 23.31 | 4.04 | 5.82 | 4.26 | 4.57 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494025 | 22.43 | 20.20 | 51.44 | 24.59 | 1.23 | 1.44 | 3.80 | 1.44 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494026 | 22.38 | 21.67 | 45.25 | 21.63 | 2.82 | 3.05 | 4.05 | 1.76 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494022 | 23.34 | 21.63 | 52.82 | 29.05 | 1.71 | 2.51 | 4.04 | 3.11 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494027 | 23.28 | 20.41 | 46.00 | 23.07 | 1.05 | 1.50 | 2.50 | 1.03 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494018 | 22.26 | 14.23 | 56.00 | 27.03 | 1.05 | 2.79 | 4.45 | 2.40 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494028 | 23.50 | 21.37 | 44.34 | 23.06 | 1.82 | 2.15 | 2.40 | 1.31 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494016 | 24.72 | 26.07 | 47.04 | 21.34 | 1.68 | 3.23 | 5.01 | 3.24 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494024 | 25.03 | 23.31 | 52.13 | 24.05 | 2.22 | 3.13 | 2.07 | 1.94 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494030 | 20.55 | 15.99 | 55.18 | 27.59 | 1.50 | 2.44 | 5.25 | 4.84 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494017 | 23.20 | 22.14 | 44.40 | 23.33 | 1.43 | 1.45 | 2.78 | 1.23 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494020 | 23.43 | 21.46 | 44.34 | 22.01 | 1.73 | 1.45 | 3.60 | 1.23 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494029 | 21.35 | 17.73 | 51.82 | 25.82 | 1.40 | 2.42 | 4.14 | 2.16 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494019 | 22.06 | 17.26 | 51.41 | 30.41 | 1.32 | 2.45 | 5.54 | 3.03 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494021 | 26.42 | 26.12 | 50.24 | 23.24 | 2.47 | 2.42 | 3.83 | 2.89 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494023 | 23.19 | 20.76 | 52.44 | 24.24 | 1.50 | 2.45 | 2.10 | 1.15 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494025 | 21.04 | 14.69 | 37.74 | 20.05 | 1.24 | 4.65 | 5.12 | 3.20 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494025 | 20.42 | 20.07 | 39.40 | 18.32 | 1.04 | 1.30 | 2.67 | 1.14 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494022 | 21.52 | 20.50 | 32.07 | 17.04 | 2.12 | 1.30 | 2.07 | 1.14 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494027 | 20.79 | 19.91 | 37.79 | 20.27 | 1.32 | 2.21 | 1.15 | 0.83 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494018 | 19.61 | 17.58 | 46.38 | 22.32 | 1.47 | 2.72 | 2.40 | 1.47 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494028 | 21.27 | 20.11 | 34.23 | 20.57 | 1.14 | 1.49 | 2.78 | 1.47 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494016 | 25.41 | 24.01 | 48.42 | 20.44 | 1.38 | 0.11 | 2.13 | 1.72 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494024 | 21.45 | 20.64 | 48.34 | 21.46 | 1.32 | 2.30 | 2.14 | 1.43 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494030 | 19.05 | 15.53 | 42.42 | 24.11 | 1.23 | 2.14 | 6.05 | 4.55 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494017 | 21.04 | 20.46 | 34.44 | 14.82 | 1.50 | 2.02 | 3.05 | 1.55 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494020 | 20.44 | 20.45 | 35.83 | 18.05 | 1.00 | 2.16 | 3.33 | 0.44 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494029 | 14.30 | 17.48 | 34.23 | 21.17 | 1.25 | 1.67 | 2.15 | 1.44 | 28.24 | 27.08 | 46.54 | 20.42 |
| 14854 | 1494019 | 14.25 | 15.71 | 43.53 | 24.79 | 0.75 | 0.80 | 3.30 | 1.61 | 28.24 | 27.08 | 46.54 | 20.42 |

FILE: TYSM

SPECTRAL A

CONVERSATIONAL MONITOR SYSTEM

| | | | | | | | | | | | | |
|--------------|-------|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|
| 148582175021 | 24.53 | 26.29 | 38.24 | 19.59 | 2.24 | 3.95 | 2.25 | 2.15 | 21.04 | 19.69 | 37.74 | 20.05 |
| 148582175022 | 24.05 | 25.38 | 42.67 | 21.81 | 2.40 | 3.85 | 2.50 | 1.69 | 21.04 | 19.69 | 37.74 | 20.05 |
| 148582181005 | 20.37 | 19.37 | 36.47 | 17.26 | 3.23 | 4.70 | 2.99 | 3.08 | 20.37 | 19.37 | 36.47 | 19.26 |
| 148582185000 | 19.65 | 20.50 | 34.18 | 17.57 | 1.13 | 1.50 | 2.02 | 1.24 | 20.37 | 19.37 | 36.47 | 19.26 |
| 148582185002 | 19.74 | 20.88 | 31.46 | 16.63 | 1.28 | 1.08 | 2.02 | 1.06 | 20.37 | 19.37 | 36.47 | 19.26 |
| 148582185002 | 20.05 | 18.91 | 34.23 | 18.18 | 1.46 | 1.48 | 2.55 | 1.05 | 20.37 | 19.37 | 36.47 | 19.26 |
| 148582185002 | 20.28 | 20.33 | 37.09 | 18.79 | 1.11 | 2.22 | 2.74 | 1.17 | 20.37 | 19.37 | 36.47 | 19.26 |
| 148582185018 | 18.61 | 16.65 | 41.35 | 22.05 | 1.50 | 2.37 | 2.92 | 1.84 | 20.37 | 19.37 | 36.47 | 19.26 |
| 148582185024 | 20.16 | 20.07 | 36.97 | 19.03 | 1.46 | 2.95 | 2.35 | 1.60 | 20.37 | 19.37 | 36.47 | 19.26 |
| 148582185016 | 23.58 | 25.45 | 40.77 | 20.50 | 3.66 | 6.29 | 2.80 | 2.50 | 20.37 | 19.37 | 36.47 | 19.26 |
| 148582185024 | 21.46 | 20.38 | 39.03 | 19.97 | 1.71 | 2.55 | 2.64 | 1.33 | 20.37 | 19.37 | 36.47 | 19.26 |
| 148582185030 | 17.64 | 14.11 | 42.01 | 23.55 | 1.31 | 1.73 | 4.55 | 6.33 | 20.37 | 19.37 | 36.47 | 19.26 |
| 148582185017 | 20.55 | 21.08 | 36.78 | 19.04 | 1.79 | 3.84 | 2.66 | 1.22 | 20.37 | 19.37 | 36.47 | 19.26 |
| 148582185029 | 19.43 | 20.22 | 33.30 | 17.43 | 1.59 | 3.18 | 2.88 | 1.27 | 20.37 | 19.37 | 36.47 | 19.26 |
| 148582185019 | 18.46 | 17.66 | 38.44 | 19.95 | 1.05 | 1.57 | 2.01 | 1.37 | 20.37 | 19.37 | 36.47 | 19.26 |
| 148582185019 | 19.24 | 16.76 | 42.53 | 23.38 | 1.33 | 1.58 | 2.02 | 1.67 | 20.37 | 19.37 | 36.47 | 19.26 |
| 148582185021 | 20.42 | 20.29 | 39.59 | 28.38 | 2.07 | 4.12 | 2.35 | 1.50 | 20.37 | 19.37 | 36.47 | 19.26 |
| 148582185023 | 23.92 | 25.19 | 41.52 | 20.48 | 2.47 | 3.47 | 4.55 | 1.72 | 20.37 | 19.37 | 36.47 | 19.26 |
| 148582185045 | 19.75 | 17.61 | 31.92 | 19.98 | 2.47 | 3.47 | 4.55 | 1.11 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185025 | 20.25 | 20.16 | 31.26 | 14.77 | 1.23 | 2.05 | 3.26 | 2.03 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185000 | 19.44 | 19.33 | 24.50 | 14.17 | 1.23 | 2.05 | 3.26 | 1.02 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185022 | 21.41 | 19.68 | 34.58 | 17.00 | 1.44 | 2.22 | 1.86 | 1.63 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185018 | 19.02 | 17.70 | 29.16 | 13.95 | 1.22 | 1.50 | 1.46 | 0.82 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185018 | 20.10 | 19.81 | 33.77 | 18.94 | 1.34 | 2.67 | 2.10 | 2.28 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185028 | 21.17 | 20.63 | 31.00 | 14.34 | 1.36 | 1.51 | 2.06 | 1.18 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185016 | 20.49 | 19.34 | 31.57 | 19.26 | 1.43 | 2.66 | 3.43 | 2.24 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185024 | 22.56 | 24.18 | 31.15 | 14.62 | 1.44 | 2.44 | 2.92 | 1.56 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185030 | 20.32 | 19.00 | 32.70 | 16.22 | 1.87 | 3.22 | 3.43 | 2.82 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185017 | 21.51 | 20.76 | 30.65 | 14.39 | 1.33 | 1.86 | 2.01 | 1.10 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185029 | 23.39 | 24.83 | 32.39 | 14.96 | 2.08 | 2.24 | 2.21 | 0.93 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185019 | 18.77 | 17.63 | 27.34 | 13.06 | 1.11 | 1.11 | 1.60 | 1.04 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185019 | 20.71 | 20.32 | 29.35 | 15.44 | 1.28 | 3.44 | 1.01 | 0.65 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185021 | 21.59 | 23.29 | 32.89 | 15.35 | 2.21 | 3.55 | 1.40 | 1.55 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185023 | 23.36 | 23.97 | 33.29 | 15.00 | 1.24 | 3.08 | 2.79 | 1.65 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185031 | 19.45 | 21.32 | 32.06 | 14.88 | 1.79 | 3.16 | 3.79 | 3.67 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185025 | 20.33 | 24.71 | 30.13 | 13.02 | 1.44 | 3.16 | 3.92 | 1.44 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185026 | 20.27 | 24.71 | 30.13 | 13.02 | 1.44 | 3.16 | 3.92 | 1.44 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185027 | 19.09 | 22.49 | 33.02 | 14.86 | 1.67 | 2.05 | 2.78 | 1.32 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185018 | 17.71 | 20.45 | 34.81 | 16.29 | 1.30 | 2.34 | 2.29 | 0.94 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185028 | 20.00 | 25.26 | 34.29 | 15.40 | 1.49 | 2.33 | 2.15 | 1.44 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185016 | 19.34 | 21.11 | 35.38 | 16.45 | 1.54 | 2.33 | 2.60 | 1.12 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185024 | 24.23 | 31.15 | 38.54 | 19.87 | 1.59 | 2.33 | 2.51 | 1.06 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185030 | 18.68 | 21.19 | 34.08 | 16.46 | 1.19 | 2.33 | 2.60 | 4.02 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185017 | 19.94 | 21.39 | 34.63 | 16.04 | 1.24 | 2.04 | 2.07 | 1.02 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185022 | 22.26 | 26.87 | 33.30 | 14.83 | 2.24 | 2.18 | 2.48 | 1.07 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185029 | 22.53 | 28.44 | 35.77 | 15.97 | 1.43 | 2.04 | 2.84 | 1.21 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185019 | 22.92 | 28.42 | 35.74 | 15.49 | 2.19 | 2.63 | 2.84 | 2.47 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185021 | 22.18 | 27.47 | 35.47 | 16.74 | 2.57 | 3.01 | 2.60 | 2.29 | 19.75 | 17.61 | 31.92 | 19.26 |
| 148582185023 | 23.01 | 27.14 | 35.33 | 15.33 | 4.92 | 3.11 | 3.33 | 3.42 | 19.75 | 17.61 | 31.92 | 19.26 |
| 151181185022 | 22.16 | 21.13 | 21.13 | 9.31 | 2.24 | 3.24 | 5.00 | 1.96 | 20.27 | 27.28 | 28.60 | 28.39 |
| 151181185019 | 23.05 | 23.08 | 21.76 | 4.40 | 1.84 | 1.98 | 2.81 | 0.44 | 20.27 | 27.28 | 28.60 | 28.39 |
| 151181185020 | 23.50 | 24.24 | 23.15 | 10.00 | 3.45 | 5.42 | 6.57 | 2.67 | 20.27 | 27.28 | 28.60 | 28.39 |
| 151181185016 | 22.41 | 22.02 | 20.55 | 4.32 | 2.63 | 3.16 | 3.43 | 2.53 | 20.27 | 27.28 | 28.60 | 28.39 |
| 151181185021 | 23.09 | 23.00 | 21.36 | 9.82 | 1.33 | 1.67 | 1.57 | 0.75 | 20.27 | 27.28 | 28.60 | 28.39 |
| 151181185023 | 20.64 | 19.09 | 18.77 | 7.95 | 3.85 | 6.45 | 4.43 | 4.71 | 20.27 | 27.28 | 28.60 | 28.39 |
| 151181185027 | 23.81 | 23.47 | 22.16 | 4.40 | 3.52 | 4.32 | 5.29 | 1.80 | 20.27 | 27.28 | 28.60 | 28.39 |
| 151181185029 | 26.94 | 28.22 | 28.73 | 12.06 | 3.00 | 3.72 | 5.44 | 2.21 | 20.27 | 27.28 | 28.60 | 28.39 |
| 151181185028 | 32.22 | 35.90 | 39.67 | 14.44 | 7.44 | 8.72 | 8.94 | 3.75 | 20.27 | 27.28 | 28.60 | 28.39 |
| 151181185017 | 23.06 | 23.26 | 23.13 | 10.60 | 3.14 | 2.05 | 5.80 | 3.32 | 20.27 | 27.28 | 28.60 | 28.39 |
| 151181185018 | 22.12 | 22.00 | 21.04 | 4.38 | 1.70 | 2.29 | 3.00 | 1.60 | 20.27 | 27.28 | 28.60 | 28.39 |
| 151181185026 | 22.47 | 22.52 | 21.64 | 9.68 | 1.84 | 2.54 | 3.46 | 2.21 | 20.27 | 27.28 | 28.60 | 28.39 |
| 151181185024 | 23.60 | 23.70 | 23.08 | 9.70 | 2.75 | 3.33 | 6.06 | 2.60 | 20.27 | 27.28 | 28.60 | 28.39 |
| 151181185025 | 73.36 | 76.45 | 75.97 | 30.97 | 2.02 | 4.17 | 4.36 | 18.24 | 20.27 | 27.28 | 28.60 | 28.39 |
| 151181185030 | 23.41 | 23.51 | 22.74 | 4.96 | 2.32 | 3.50 | 4.37 | 1.74 | 20.27 | 27.28 | 28.60 | 28.39 |
| 151181185018 | 22.50 | 23.00 | 33.42 | 15.37 | 3.14 | 4.27 | 11.23 | 5.54 | 22.80 | 23.10 | 33.42 | 15.37 |
| 151181185022 | 20.50 | 20.59 | 21.72 | 9.66 | 1.45 | 2.66 | 4.38 | 1.74 | 22.80 | 23.10 | 33.42 | 15.37 |
| 151181185016 | 21.00 | 22.08 | 23.08 | 10.35 | 1.44 | 2.02 | 4.44 | 1.65 | 22.80 | 23.10 | 33.42 | 15.37 |
| 151181185020 | 21.20 | 21.61 | 21.61 | 10.07 | 2.57 | 3.62 | 6.21 | 2.81 | 22.80 | 23.10 | 33.42 | 15.37 |
| 151181185016 | 22.05 | 22.74 | 24.26 | 10.88 | 2.32 | 3.32 | 5.26 | 2.51 | 22.80 | 23.10 | 33.42 | 15.37 |
| 151181185023 | 21.18 | 21.18 | 20.99 | 4.55 | 1.94 | 2.64 | 3.45 | 1.13 | 22.80 | 23.10 | 33.42 | 15.37 |
| 151181185023 | 24.09 | 24.40 | 28.23 | 12.18 | 3.44 | 4.08 | 5.94 | 2.23 | 22.80 | 23.10 | 33.42 | 15.37 |
| 151181185024 | 21.98 | 22.15 | 22.08 | 4.97 | 2.57 | 3.23 | 5.15 | 1.83 | 22.80 | 23.10 | 33.42 | 15.37 |
| 151181185027 | 20.67 | 20.84 | 25.97 | 12.11 | 1.72 | 2.72 | 6.20 | 3.42 | 22.80 | 23.10 | 33.42 | 15.37 |
| 151181185017 | 23.26 | 24.10 | 26.91 | 11.61 | 2.79 | 3.78 | 6.20 | 2.60 | 22.80 | 23.10 | 33.42 | 15.37 |
| 151181185018 | 23.31 | 24.15 | 30.88 | 14.38 | 2.15 | 1.99 | 8.74 | 4.76 | 22.80 | 23.10 | 33.42 | 15.37 |
| 151181185026 | 19.67 | 19.86 | 20.36 | 4.45 | 2.33 | 2.46 | 7.21 | 3.37 | 22.80 | 23.10 | 33.42 | 15.37 |

24

FILE: TYSW

SPECTRAL A

CONVERSATIONAL MONITOR SYSTEM

| | | | | | | | | | | | | | |
|---------|----------|-------|-------|-------|-------|------|------|------|------|-------|-------|-------|-------|
| 1544481 | 1045019 | 28.16 | 32.21 | 35.95 | 15.11 | 1.64 | 2.12 | 3.72 | 1.82 | 25.80 | 29.81 | 31.40 | 13.29 |
| 1544481 | 1045018 | 24.56 | 32.16 | 32.25 | 14.00 | 1.61 | 1.74 | 3.30 | 0.92 | 25.80 | 29.81 | 31.40 | 13.29 |
| 1544481 | 1045017 | 27.94 | 32.87 | 32.03 | 14.83 | 1.84 | 1.59 | 2.78 | 0.70 | 31.53 | 34.29 | 36.71 | 14.83 |
| 1544481 | 12221544 | 31.53 | 34.29 | 36.71 | 15.33 | 1.65 | 2.22 | 2.52 | 1.74 | 31.53 | 34.29 | 36.71 | 14.83 |
| 1544481 | 12225028 | 34.78 | 38.78 | 39.63 | 15.33 | 1.32 | 2.22 | 2.81 | 1.20 | 31.53 | 34.29 | 36.71 | 14.83 |
| 1544481 | 12225029 | 30.31 | 33.58 | 34.36 | 13.44 | 1.47 | 1.44 | 2.07 | 0.73 | 31.53 | 34.29 | 36.71 | 14.83 |
| 1544481 | 12225026 | 33.73 | 38.89 | 38.90 | 13.44 | 1.11 | 1.86 | 2.34 | 0.90 | 31.53 | 34.29 | 36.71 | 14.83 |
| 1544481 | 12225027 | 31.55 | 34.67 | 34.65 | 13.33 | 1.04 | 2.22 | 2.44 | 1.33 | 31.53 | 34.29 | 36.71 | 14.83 |
| 1544481 | 12225022 | 30.15 | 32.36 | 34.15 | 13.33 | 1.22 | 2.22 | 2.69 | 1.05 | 31.53 | 34.29 | 36.71 | 14.83 |
| 1544481 | 12225030 | 30.63 | 37.80 | 37.20 | 15.15 | 1.76 | 2.37 | 2.83 | 1.77 | 31.53 | 34.29 | 36.71 | 14.83 |
| 1544481 | 12225021 | 32.52 | 37.80 | 37.04 | 14.44 | 1.42 | 2.22 | 2.68 | 1.07 | 31.53 | 34.29 | 36.71 | 14.83 |
| 1544481 | 12225020 | 32.21 | 33.92 | 35.88 | 14.44 | 1.33 | 2.22 | 2.22 | 1.21 | 31.53 | 34.29 | 36.71 | 14.83 |
| 1544481 | 12225025 | 31.13 | 35.14 | 35.54 | 14.44 | 1.44 | 2.22 | 2.77 | 1.01 | 31.53 | 34.29 | 36.71 | 14.83 |
| 1544481 | 12225026 | 31.32 | 33.34 | 33.83 | 13.33 | 1.11 | 1.88 | 2.54 | 0.77 | 31.53 | 34.29 | 36.71 | 14.83 |
| 1544481 | 12225018 | 30.22 | 32.81 | 33.86 | 13.33 | 1.11 | 1.75 | 2.31 | 0.54 | 31.53 | 34.29 | 36.71 | 14.83 |
| 1544481 | 12225017 | 30.35 | 32.97 | 33.71 | 14.11 | 1.11 | 1.78 | 2.37 | 1.11 | 31.53 | 34.29 | 36.71 | 14.83 |
| 1544481 | 1461544 | 30.25 | 31.74 | 34.19 | 16.00 | 1.02 | 2.55 | 2.33 | 2.32 | 30.25 | 31.74 | 34.19 | 16.00 |
| 1544481 | 1461544 | 32.43 | 33.30 | 38.77 | 17.23 | 1.61 | 2.22 | 2.44 | 1.17 | 30.25 | 31.74 | 34.19 | 16.00 |
| 1544481 | 1461544 | 31.03 | 33.77 | 40.54 | 15.44 | 1.84 | 2.22 | 2.74 | 1.54 | 30.25 | 31.74 | 34.19 | 16.00 |
| 1544481 | 1461544 | 30.35 | 33.42 | 35.44 | 14.88 | 1.55 | 2.22 | 2.54 | 0.85 | 30.25 | 31.74 | 34.19 | 16.00 |
| 1544481 | 1461544 | 32.36 | 35.86 | 38.84 | 16.88 | 2.06 | 2.22 | 2.17 | 1.73 | 30.25 | 31.74 | 34.19 | 16.00 |
| 1544481 | 1461544 | 33.67 | 38.52 | 40.93 | 18.00 | 2.55 | 2.22 | 2.88 | 1.02 | 30.25 | 31.74 | 34.19 | 16.00 |
| 1544481 | 1461544 | 30.25 | 31.84 | 40.33 | 17.54 | 2.03 | 2.77 | 2.28 | 1.77 | 30.25 | 31.74 | 34.19 | 16.00 |
| 1544481 | 1461544 | 31.21 | 33.67 | 36.03 | 19.24 | 2.03 | 2.22 | 2.03 | 1.90 | 30.25 | 31.74 | 34.19 | 16.00 |
| 1544481 | 1461544 | 31.75 | 34.40 | 37.04 | 14.88 | 1.75 | 2.11 | 1.88 | 0.83 | 30.25 | 31.74 | 34.19 | 16.00 |
| 1544481 | 1461544 | 32.24 | 34.21 | 35.00 | 14.88 | 1.51 | 1.88 | 2.33 | 1.52 | 30.25 | 31.74 | 34.19 | 16.00 |
| 1544481 | 1461544 | 35.13 | 40.13 | 42.44 | 17.36 | 2.63 | 2.22 | 2.08 | 0.99 | 30.25 | 31.74 | 34.19 | 16.00 |
| 1544481 | 1461544 | 33.33 | 37.31 | 42.53 | 17.36 | 2.22 | 2.11 | 2.04 | 1.44 | 30.25 | 31.74 | 34.19 | 16.00 |
| 1544481 | 1461544 | 33.33 | 34.88 | 38.84 | 19.51 | 1.45 | 2.22 | 2.13 | 1.27 | 30.25 | 31.74 | 34.19 | 16.00 |
| 1544481 | 1461544 | 33.33 | 33.53 | 35.37 | 19.51 | 1.55 | 2.22 | 2.33 | 1.01 | 30.25 | 31.74 | 34.19 | 16.00 |
| 1544481 | 1461544 | 32.99 | 32.83 | 33.88 | 18.24 | 1.55 | 2.22 | 2.22 | 0.88 | 30.25 | 31.74 | 34.19 | 16.00 |
| 1544481 | 1461544 | 30.61 | 33.83 | 38.05 | 18.24 | 1.55 | 2.22 | 2.22 | 0.88 | 30.25 | 31.74 | 34.19 | 16.00 |
| 1544481 | 1581544 | 31.94 | 30.83 | 44.38 | 18.60 | 2.52 | 2.55 | 2.31 | 3.73 | 31.94 | 30.83 | 44.38 | 18.60 |
| 1544481 | 1581544 | 32.26 | 31.87 | 43.88 | 19.35 | 2.33 | 2.33 | 2.02 | 1.14 | 31.94 | 30.83 | 44.38 | 18.60 |
| 1544481 | 1581544 | 31.03 | 32.00 | 43.60 | 19.31 | 2.33 | 2.00 | 2.00 | 2.43 | 31.94 | 30.83 | 44.38 | 18.60 |
| 1544481 | 1581544 | 32.68 | 32.86 | 38.40 | 15.42 | 2.22 | 2.60 | 2.71 | 0.45 | 31.94 | 30.83 | 44.38 | 18.60 |
| 1544481 | 1581544 | 33.14 | 32.09 | 41.55 | 17.00 | 2.22 | 2.60 | 2.49 | 1.00 | 31.94 | 30.83 | 44.38 | 18.60 |
| 1544481 | 1581544 | 32.27 | 33.38 | 40.95 | 16.55 | 2.66 | 2.66 | 2.49 | 2.15 | 31.94 | 30.83 | 44.38 | 18.60 |
| 1544481 | 1581544 | 34.42 | 30.59 | 45.74 | 18.74 | 2.67 | 3.38 | 2.55 | 3.42 | 31.94 | 30.83 | 44.38 | 18.60 |
| 1544481 | 1581544 | 33.41 | 33.31 | 43.37 | 17.50 | 2.37 | 3.81 | 2.13 | 0.91 | 31.94 | 30.83 | 44.38 | 18.60 |
| 1544481 | 1581544 | 31.75 | 33.33 | 43.37 | 17.50 | 2.37 | 3.81 | 2.13 | 2.41 | 31.94 | 30.83 | 44.38 | 18.60 |
| 1544481 | 1581544 | 33.33 | 33.33 | 43.37 | 17.50 | 2.37 | 3.81 | 2.13 | 0.88 | 31.94 | 30.83 | 44.38 | 18.60 |
| 1544481 | 1581544 | 33.33 | 33.33 | 43.37 | 17.50 | 2.37 | 3.81 | 2.13 | 1.30 | 31.94 | 30.83 | 44.38 | 18.60 |
| 1544481 | 1581544 | 33.33 | 33.33 | 43.37 | 17.50 | 2.37 | 3.81 | 2.13 | 1.45 | 31.94 | 30.83 | 44.38 | 18.60 |
| 1544481 | 1581544 | 33.33 | 33.33 | 43.37 | 17.50 | 2.37 | 3.81 | 2.13 | 1.45 | 31.94 | 30.83 | 44.38 | 18.60 |
| 1544481 | 1581544 | 33.33 | 33.33 | 43.37 | 17.50 | 2.37 | 3.81 | 2.13 | 1.41 | 31.94 | 30.83 | 44.38 | 18.60 |
| 1544481 | 1581544 | 33.33 | 33.33 | 43.37 | 17.50 | 2.37 | 3.81 | 2.13 | 1.57 | 31.94 | 30.83 | 44.38 | 18.60 |
| 1544481 | 1581544 | 31.01 | 31.55 | 48.29 | 15.31 | 2.45 | 1.88 | 2.02 | 0.45 | 31.94 | 30.83 | 44.38 | 18.60 |
| 1544481 | 1761544 | 30.87 | 32.19 | 50.44 | 21.42 | 2.72 | 9.08 | 6.07 | 2.44 | 30.87 | 32.19 | 50.44 | 21.42 |
| 1544481 | 1761544 | 35.70 | 40.57 | 44.30 | 14.22 | 2.03 | 7.80 | 6.04 | 1.02 | 30.87 | 32.19 | 50.44 | 21.42 |
| 1544481 | 1761544 | 29.15 | 28.85 | 50.42 | 21.85 | 1.57 | 3.67 | 2.43 | 0.80 | 30.87 | 32.19 | 50.44 | 21.42 |
| 1544481 | 1761544 | 35.27 | 39.50 | 52.48 | 21.66 | 2.17 | 3.67 | 2.43 | 1.44 | 30.87 | 32.19 | 50.44 | 21.42 |
| 1544481 | 1761544 | 32.73 | 35.35 | 53.72 | 22.45 | 3.15 | 3.70 | 3.13 | 1.18 | 30.87 | 32.19 | 50.44 | 21.42 |
| 1544481 | 1761544 | 35.60 | 34.52 | 52.65 | 21.45 | 3.15 | 4.02 | 3.73 | 1.80 | 30.87 | 32.19 | 50.44 | 21.42 |
| 1544481 | 1761544 | 33.75 | 32.86 | 53.88 | 22.83 | 2.88 | 4.17 | 3.66 | 2.20 | 30.87 | 32.19 | 50.44 | 21.42 |
| 1544481 | 1761544 | 27.41 | 24.48 | 54.89 | 24.57 | 2.07 | 3.06 | 2.42 | 1.58 | 30.87 | 32.19 | 50.44 | 21.42 |
| 1544481 | 1761544 | 38.46 | 45.80 | 52.96 | 20.60 | 2.12 | 3.68 | 2.74 | 1.08 | 30.87 | 32.19 | 50.44 | 21.42 |
| 1544481 | 1761544 | 31.44 | 31.90 | 52.40 | 22.12 | 2.48 | 3.68 | 2.55 | 1.77 | 30.87 | 32.19 | 50.44 | 21.42 |
| 1544481 | 1761544 | 32.45 | 33.90 | 50.72 | 22.03 | 3.31 | 4.81 | 3.65 | 1.31 | 30.87 | 32.19 | 50.44 | 21.42 |
| 1544481 | 1761544 | 29.83 | 33.90 | 50.72 | 24.81 | 2.70 | 3.63 | 3.07 | 1.30 | 30.87 | 32.19 | 50.44 | 21.42 |
| 1544481 | 1761544 | 31.20 | 33.03 | 47.74 | 24.94 | 2.70 | 3.23 | 3.07 | 1.33 | 30.87 | 32.19 | 50.44 | 21.42 |
| 1544481 | 1761544 | 32.03 | 33.84 | 50.45 | 24.53 | 2.73 | 3.34 | 3.01 | 1.07 | 30.87 | 32.19 | 50.44 | 21.42 |
| 1544481 | 1761544 | 25.19 | 22.81 | 52.84 | 24.32 | 2.63 | 3.34 | 3.36 | 2.17 | 30.87 | 32.19 | 50.44 | 21.42 |
| 1544481 | 1761544 | 25.42 | 22.81 | 52.84 | 24.32 | 2.63 | 3.34 | 3.36 | 2.10 | 30.87 | 32.19 | 50.44 | 21.42 |
| 1544481 | 2211544 | 25.13 | 22.00 | 37.45 | 17.83 | 3.28 | 5.34 | 5.78 | 3.10 | 25.13 | 22.00 | 37.45 | 17.83 |
| 1544481 | 22115028 | 23.69 | 22.00 | 39.83 | 19.70 | 1.96 | 2.17 | 2.08 | 2.98 | 25.13 | 22.00 | 37.45 | 17.83 |
| 1544481 | 22115029 | 25.35 | 22.00 | 42.54 | 22.45 | 1.60 | 1.14 | 1.14 | 0.78 | 25.13 | 22.00 | 37.45 | 17.83 |
| 1544481 | 22115026 | 25.35 | 27.52 | 37.32 | 17.40 | 1.31 | 1.61 | 1.73 | 2.51 | 25.13 | 22.00 | 37.45 | 17.83 |
| 1544481 | 22115027 | 25.35 | 27.52 | 37.32 | 17.40 | 1.31 | 1.61 | 1.73 | 2.51 | 25.13 | 22.00 | 37.45 | 17.83 |
| 1544481 | 22115022 | 25.35 | 27.52 | 37.32 | 17.40 | 1.31 | 1.61 | 1.73 | 2.51 | 25.13 | 22.00 | 37.45 | 17.83 |
| 1544481 | 22115027 | 25.35 | 27.52 | 37.32 | 17.40 | 1.31 | 1.61 | 1.73 | 2.51 | 25.13 | 22.00 | 37.45 | 17.83 |
| 1544481 | 22115030 | 22.57 | 22.13 | 38.22 | 14.24 | 1.89 | 2.77 | 2.08 | 1.74 | 25.13 | 22.00 | 37.45 | 17.83 |
| 1544481 | 22115023 | 27.05 | 23.99 | 35.25 | 14.72 | 1.24 | 1.90 | 2.05 | 2.05 | 25.13 | 22.00 | 37.45 | 17.83 |
| 1544481 | 22115021 | 25.90 | 23.34 | 32.41 | 14.44 | 1.24 | 1.90 | 2.05 | 2.24 | 25.13 | 22.00 | 37.45 | 17.83 |
| 1544481 | 22115016 | 25.90 | 23.34 | 32.41 | 14.44 | 1.24 | 1.90 | 2.05 | 2.24 | 25.13 | 22.00 | 37.45 | 17.83 |
| 1544481 | 22115025 | 23.17 | 25.92 | 35.75 | 16.71 | 2.74 | 3.32 | 3.04 | 3.52 | 25.13 | 22.00 | 37.45 | 17.83 |

| | | | | | | | | | | | | | |
|--------|---------|-------|-------|-------|-------|------|------|-------|------|-------|-------|-------|-------|
| 163641 | 1905029 | 18.37 | 12.32 | 44.04 | 24.69 | 2.01 | 1.84 | 11.49 | 0.24 | 22.57 | 16.52 | 44.77 | 24.60 |
| 163642 | 1905030 | 18.41 | 12.31 | 44.01 | 24.68 | 2.02 | 1.85 | 11.48 | 0.25 | 22.56 | 16.51 | 44.76 | 24.59 |
| 163643 | 1905031 | 18.45 | 12.30 | 43.98 | 24.67 | 2.03 | 1.86 | 11.47 | 0.26 | 22.55 | 16.50 | 44.75 | 24.58 |
| 163644 | 1905032 | 18.49 | 12.29 | 43.95 | 24.66 | 2.04 | 1.87 | 11.46 | 0.27 | 22.54 | 16.49 | 44.74 | 24.57 |
| 163645 | 1905033 | 18.53 | 12.28 | 43.92 | 24.65 | 2.05 | 1.88 | 11.45 | 0.28 | 22.53 | 16.48 | 44.73 | 24.56 |
| 163646 | 1905034 | 18.57 | 12.27 | 43.89 | 24.64 | 2.06 | 1.89 | 11.44 | 0.29 | 22.52 | 16.47 | 44.72 | 24.55 |
| 163647 | 1905035 | 18.61 | 12.26 | 43.86 | 24.63 | 2.07 | 1.90 | 11.43 | 0.30 | 22.51 | 16.46 | 44.71 | 24.54 |
| 163648 | 1905036 | 18.65 | 12.25 | 43.83 | 24.62 | 2.08 | 1.91 | 11.42 | 0.31 | 22.50 | 16.45 | 44.70 | 24.53 |
| 163649 | 1905037 | 18.69 | 12.24 | 43.80 | 24.61 | 2.09 | 1.92 | 11.41 | 0.32 | 22.49 | 16.44 | 44.69 | 24.52 |
| 163650 | 1905038 | 18.73 | 12.23 | 43.77 | 24.60 | 2.10 | 1.93 | 11.40 | 0.33 | 22.48 | 16.43 | 44.68 | 24.51 |
| 163651 | 1905039 | 18.77 | 12.22 | 43.74 | 24.59 | 2.11 | 1.94 | 11.39 | 0.34 | 22.47 | 16.42 | 44.67 | 24.50 |
| 163652 | 1905040 | 18.81 | 12.21 | 43.71 | 24.58 | 2.12 | 1.95 | 11.38 | 0.35 | 22.46 | 16.41 | 44.66 | 24.49 |
| 163653 | 1905041 | 18.85 | 12.20 | 43.68 | 24.57 | 2.13 | 1.96 | 11.37 | 0.36 | 22.45 | 16.40 | 44.65 | 24.48 |
| 163654 | 1905042 | 18.89 | 12.19 | 43.65 | 24.56 | 2.14 | 1.97 | 11.36 | 0.37 | 22.44 | 16.39 | 44.64 | 24.47 |
| 163655 | 1905043 | 18.93 | 12.18 | 43.62 | 24.55 | 2.15 | 1.98 | 11.35 | 0.38 | 22.43 | 16.38 | 44.63 | 24.46 |
| 163656 | 1905044 | 18.97 | 12.17 | 43.59 | 24.54 | 2.16 | 1.99 | 11.34 | 0.39 | 22.42 | 16.37 | 44.62 | 24.45 |
| 163657 | 1905045 | 19.01 | 12.16 | 43.56 | 24.53 | 2.17 | 2.00 | 11.33 | 0.40 | 22.41 | 16.36 | 44.61 | 24.44 |
| 163658 | 1905046 | 19.05 | 12.15 | 43.53 | 24.52 | 2.18 | 2.01 | 11.32 | 0.41 | 22.40 | 16.35 | 44.60 | 24.43 |
| 163659 | 1905047 | 19.09 | 12.14 | 43.50 | 24.51 | 2.19 | 2.02 | 11.31 | 0.42 | 22.39 | 16.34 | 44.59 | 24.42 |
| 163660 | 1905048 | 19.13 | 12.13 | 43.47 | 24.50 | 2.20 | 2.03 | 11.30 | 0.43 | 22.38 | 16.33 | 44.58 | 24.41 |
| 163661 | 1905049 | 19.17 | 12.12 | 43.44 | 24.49 | 2.21 | 2.04 | 11.29 | 0.44 | 22.37 | 16.32 | 44.57 | 24.40 |
| 163662 | 1905050 | 19.21 | 12.11 | 43.41 | 24.48 | 2.22 | 2.05 | 11.28 | 0.45 | 22.36 | 16.31 | 44.56 | 24.39 |
| 163663 | 1905051 | 19.25 | 12.10 | 43.38 | 24.47 | 2.23 | 2.06 | 11.27 | 0.46 | 22.35 | 16.30 | 44.55 | 24.38 |
| 163664 | 1905052 | 19.29 | 12.09 | 43.35 | 24.46 | 2.24 | 2.07 | 11.26 | 0.47 | 22.34 | 16.29 | 44.54 | 24.37 |
| 163665 | 1905053 | 19.33 | 12.08 | 43.32 | 24.45 | 2.25 | 2.08 | 11.25 | 0.48 | 22.33 | 16.28 | 44.53 | 24.36 |
| 163666 | 1905054 | 19.37 | 12.07 | 43.29 | 24.44 | 2.26 | 2.09 | 11.24 | 0.49 | 22.32 | 16.27 | 44.52 | 24.35 |
| 163667 | 1905055 | 19.41 | 12.06 | 43.26 | 24.43 | 2.27 | 2.10 | 11.23 | 0.50 | 22.31 | 16.26 | 44.51 | 24.34 |
| 163668 | 1905056 | 19.45 | 12.05 | 43.23 | 24.42 | 2.28 | 2.11 | 11.22 | 0.51 | 22.30 | 16.25 | 44.50 | 24.33 |
| 163669 | 1905057 | 19.49 | 12.04 | 43.20 | 24.41 | 2.29 | 2.12 | 11.21 | 0.52 | 22.29 | 16.24 | 44.49 | 24.32 |
| 163670 | 1905058 | 19.53 | 12.03 | 43.17 | 24.40 | 2.30 | 2.13 | 11.20 | 0.53 | 22.28 | 16.23 | 44.48 | 24.31 |
| 163671 | 1905059 | 19.57 | 12.02 | 43.14 | 24.39 | 2.31 | 2.14 | 11.19 | 0.54 | 22.27 | 16.22 | 44.47 | 24.30 |
| 163672 | 1905060 | 19.61 | 12.01 | 43.11 | 24.38 | 2.32 | 2.15 | 11.18 | 0.55 | 22.26 | 16.21 | 44.46 | 24.29 |
| 163673 | 1905061 | 19.65 | 12.00 | 43.08 | 24.37 | 2.33 | 2.16 | 11.17 | 0.56 | 22.25 | 16.20 | 44.45 | 24.28 |
| 163674 | 1905062 | 19.69 | 11.99 | 43.05 | 24.36 | 2.34 | 2.17 | 11.16 | 0.57 | 22.24 | 16.19 | 44.44 | 24.27 |
| 163675 | 1905063 | 19.73 | 11.98 | 43.02 | 24.35 | 2.35 | 2.18 | 11.15 | 0.58 | 22.23 | 16.18 | 44.43 | 24.26 |
| 163676 | 1905064 | 19.77 | 11.97 | 42.99 | 24.34 | 2.36 | 2.19 | 11.14 | 0.59 | 22.22 | 16.17 | 44.42 | 24.25 |
| 163677 | 1905065 | 19.81 | 11.96 | 42.96 | 24.33 | 2.37 | 2.20 | 11.13 | 0.60 | 22.21 | 16.16 | 44.41 | 24.24 |
| 163678 | 1905066 | 19.85 | 11.95 | 42.93 | 24.32 | 2.38 | 2.21 | 11.12 | 0.61 | 22.20 | 16.15 | 44.40 | 24.23 |
| 163679 | 1905067 | 19.89 | 11.94 | 42.90 | 24.31 | 2.39 | 2.22 | 11.11 | 0.62 | 22.19 | 16.14 | 44.39 | 24.22 |
| 163680 | 1905068 | 19.93 | 11.93 | 42.87 | 24.30 | 2.40 | 2.23 | 11.10 | 0.63 | 22.18 | 16.13 | 44.38 | 24.21 |
| 163681 | 1905069 | 19.97 | 11.92 | 42.84 | 24.29 | 2.41 | 2.24 | 11.09 | 0.64 | 22.17 | 16.12 | 44.37 | 24.20 |
| 163682 | 1905070 | 20.01 | 11.91 | 42.81 | 24.28 | 2.42 | 2.25 | 11.08 | 0.65 | 22.16 | 16.11 | 44.36 | 24.19 |
| 163683 | 1905071 | 20.05 | 11.90 | 42.78 | 24.27 | 2.43 | 2.26 | 11.07 | 0.66 | 22.15 | 16.10 | 44.35 | 24.18 |
| 163684 | 1905072 | 20.09 | 11.89 | 42.75 | 24.26 | 2.44 | 2.27 | 11.06 | 0.67 | 22.14 | 16.09 | 44.34 | 24.17 |
| 163685 | 1905073 | 20.13 | 11.88 | 42.72 | 24.25 | 2.45 | 2.28 | 11.05 | 0.68 | 22.13 | 16.08 | 44.33 | 24.16 |
| 163686 | 1905074 | 20.17 | 11.87 | 42.69 | 24.24 | 2.46 | 2.29 | 11.04 | 0.69 | 22.12 | 16.07 | 44.32 | 24.15 |
| 163687 | 1905075 | 20.21 | 11.86 | 42.66 | 24.23 | 2.47 | 2.30 | 11.03 | 0.70 | 22.11 | 16.06 | 44.31 | 24.14 |
| 163688 | 1905076 | 20.25 | 11.85 | 42.63 | 24.22 | 2.48 | 2.31 | 11.02 | 0.71 | 22.10 | 16.05 | 44.30 | 24.13 |
| 163689 | 1905077 | 20.29 | 11.84 | 42.60 | 24.21 | 2.49 | 2.32 | 11.01 | 0.72 | 22.09 | 16.04 | 44.29 | 24.12 |
| 163690 | 1905078 | 20.33 | 11.83 | 42.57 | 24.20 | 2.50 | 2.33 | 11.00 | 0.73 | 22.08 | 16.03 | 44.28 | 24.11 |
| 163691 | 1905079 | 20.37 | 11.82 | 42.54 | 24.19 | 2.51 | 2.34 | 10.99 | 0.74 | 22.07 | 16.02 | 44.27 | 24.10 |
| 163692 | 1905080 | 20.41 | 11.81 | 42.51 | 24.18 | 2.52 | 2.35 | 10.98 | 0.75 | 22.06 | 16.01 | 44.26 | 24.09 |
| 163693 | 1905081 | 20.45 | 11.80 | 42.48 | 24.17 | 2.53 | 2.36 | 10.97 | 0.76 | 22.05 | 16.00 | 44.25 | 24.08 |
| 163694 | 1905082 | 20.49 | 11.79 | 42.45 | 24.16 | 2.54 | 2.37 | 10.96 | 0.77 | 22.04 | 15.99 | 44.24 | 24.07 |
| 163695 | 1905083 | 20.53 | 11.78 | 42.42 | 24.15 | 2.55 | 2.38 | 10.95 | 0.78 | 22.03 | 15.98 | 44.23 | 24.06 |
| 163696 | 1905084 | 20.57 | 11.77 | 42.39 | 24.14 | 2.56 | 2.39 | 10.94 | 0.79 | 22.02 | 15.97 | 44.22 | 24.05 |
| 163697 | 1905085 | 20.61 | 11.76 | 42.36 | 24.13 | 2.57 | 2.40 | 10.93 | 0.80 | 22.01 | 15.96 | 44.21 | 24.04 |
| 163698 | 1905086 | 20.65 | 11.75 | 42.33 | 24.12 | 2.58 | 2.41 | 10.92 | 0.81 | 22.00 | 15.95 | 44.20 | 24.03 |
| 163699 | 1905087 | 20.69 | 11.74 | 42.30 | 24.11 | 2.59 | 2.42 | 10.91 | 0.82 | 21.99 | 15.94 | 44.19 | 24.02 |
| 163700 | 1905088 | 20.73 | 11.73 | 42.27 | 24.10 | 2.60 | 2.43 | 10.90 | 0.83 | 21.98 | 15.93 | 44.18 | 24.01 |
| 163701 | 1905089 | 20.77 | 11.72 | 42.24 | 24.09 | 2.61 | 2.44 | 10.89 | 0.84 | 21.97 | 15.92 | 44.17 | 24.00 |
| 163702 | 1905090 | 20.81 | 11.71 | 42.21 | 24.08 | 2.62 | 2.45 | 10.88 | 0.85 | 21.96 | 15.91 | 44.16 | 23.99 |
| 163703 | 1905091 | 20.85 | 11.70 | 42.18 | 24.07 | 2.63 | 2.46 | 10.87 | 0.86 | 21.95 | 15.90 | 44.15 | 23.98 |
| 163704 | 1905092 | 20.89 | 11.69 | 42.15 | 24.06 | 2.64 | 2.47 | 10.86 | 0.87 | 21.94 | 15.89 | 44.14 | 23.97 |
| 163705 | 1905093 | 20.93 | 11.68 | 42.12 | 24.05 | 2.65 | 2.48 | 10.85 | 0.88 | 21.93 | 15.88 | 44.13 | 23.96 |
| 163706 | 1905094 | 20.97 | 11.67 | 42.09 | 24.04 | 2.66 | 2.49 | 10.84 | 0.89 | 21.92 | 15.87 | 44.12 | 23.95 |
| 163707 | 1905095 | 21.01 | 11.66 | 42.06 | 24.03 | 2.67 | 2.50 | 10.83 | 0.90 | 21.91 | 15.86 | 44.11 | 23.94 |
| 163708 | 1905096 | 21.05 | 11.65 | 42.03 | 24.02 | 2.68 | 2.51 | 10.82 | 0.91 | 21.90 | 15.85 | 44.10 | 23.93 |
| 163709 | 1905097 | 21.09 | 11.64 | 42.00 | 24.01 | 2.69 | 2.52 | 10.81 | 0.92 | 21.89 | 15.84 | 44.09 | 23.92 |
| 163710 | 1905098 | 21.13 | 11.63 | 41.97 | 24.00 | 2.70 | 2.53 | 10.80 | 0.93 | 21.88 | 15.83 | 44.08 | 23.91 |
| 163711 | 1905099 | 21.17 | 11.62 | 41.94 | 23.99 | 2.71 | 2.54 | 10.79 | 0.94 | 21.87 | 15.82 | 44.07 | 23.90 |
| 163712 | 1905100 | 21.21 | 11.61 | 41.91 | 23.98 | 2.72 | 2.55 | 10.78 | 0.95 | 21.86 | 15.81 | 44.06 | 23.89 |
| 163713 | 1905101 | 21.25 | 11.60 | 41.88 | 23.97 | 2.73 | 2.56 | 10.77 | 0.96 | 21.85 | 15.80 | 44.05 | 23.88 |
| 163714 | 1905102 | 21.29 | 11.59 | 41.85 | 23.96 | 2.74 | 2.57 | 10.76 | 0.97 | 21.84 | 15.79 | 44.04 | 23.87 |
| 163715 | 1905103 | 21.33 | 11.58 | 41.82 | 23.95 | 2.75 | 2.58 | 10.75 | 0.98 | 21.83 | 15.78 | 44.03 | 23.86 |
| 163716 | 1905104 | 21.37 | 11.57 | 41.79 | 23.94 | 2.76 | 2.59 | 10.74 | 0.99 | 21.82 | 15.77 | 44.02 | 23.85 |
| 163717 | 1905105 | 21.41 | 11.56 | 41.76 | 23.93 | 2.77 | 2.60 | 10.73 | 1.00 | 21.81 | 15.76 | 44.01 | 23.84 |
| 163718 | 1905106 | 21.45 | 11.55 | 41.73 | 23.92 | 2.78 | 2.61 | 10.72 | 1.01 | 21.80 | 15.75 | 44.00 | 23.83 |
| 163719 | 1905107 | 21.49 | 11.54 | 41.70 | 23.91 | 2.79 | 2.62 | 10.71 | 1.02 | 21.79 | 15.74 | 43.99 | 23.82 |
| 163720 | 1905108 | 21.53 | 11.53 | 41.67 | 23.90 | 2.80 | 2.63 | 10.70 | 1.03 | 21.78 | 15.73 | 43.98 | 23.81 |
| 163721 | 1905109 | 21.57 | 11.52 | 41.64 | 23.89 | 2.81 | 2.64 | 10.69 | 1.04 | 21.77 | 15.72 | 43.97 | 23.80 |
| 163722 | 1905110 | 21.61 | 11.51 | 41.61 | 23.88 | 2.82 | 2.65 | 10.68 | 1.05 | 21.76 | 15.71 | 43.96 | 23.79 |
| 163723 | 1905111 | 21.65 | 11.50 | 41.58 | 23.87 | 2.83 | 2.66 | 10.67 | 1.06 | 21.75 | 15.70 | 43.95 | 23.78 |
| 163724 | 1905112 | 21.69 | 11.49 | 41.55 | 23.86 | 2.84 | 2.67 | 10.66 | 1.07 | 21.74 | 15.69 | 43.94 | 23.77 |
| 163725 | 1905113 | 21.73 | 11.48 | 41.52 | 23.85 | 2.85 | 2.68 | 10.65 | 1.08 | 21.73 | 15.68 | 43.93 | |

APPENDIX B
PERIODIC OBSERVATIONS DATA BASE

APPENDIX C
TY SPRING WHEAT FLAGS DATA BASE

