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NASA TECH BRIEF



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Computer Program for Off-Design Performance of Radial Inflow Turbines

A computer program for off-design performance of radial-inflow turbines has been developed and is available.

The program can be used in two ways. For an existing turbine where the performance at the design operating point may be known, this program provides a convenient way to estimate off-design performance without making actual tests. The program is also useful as a design guide. For a proposed turbine design, the design point performance can usually be closely estimated. However, if the off-design operation is of sufficient importance, modifications in the design may be considered. In this case, the effect of a series of small design changes on performance may be studied by repeated use of this program.

Use of the program requires as input information the turbine flow areas, diameters, and blade angles.

An estimate of design point performance is also necessary. The output consists of conventional performance parameters at specified flow conditions and speeds.

Notes:

1. This program is written in FORTRAN IV for use on the IBM 7094/7044 DCS.
2. Inquiries should be made to:
COSMIC
Computer Center
University of Georgia
Athens, Georgia 30601
Reference: B69-10267

Patent status:

No patent action is contemplated by NASA.
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