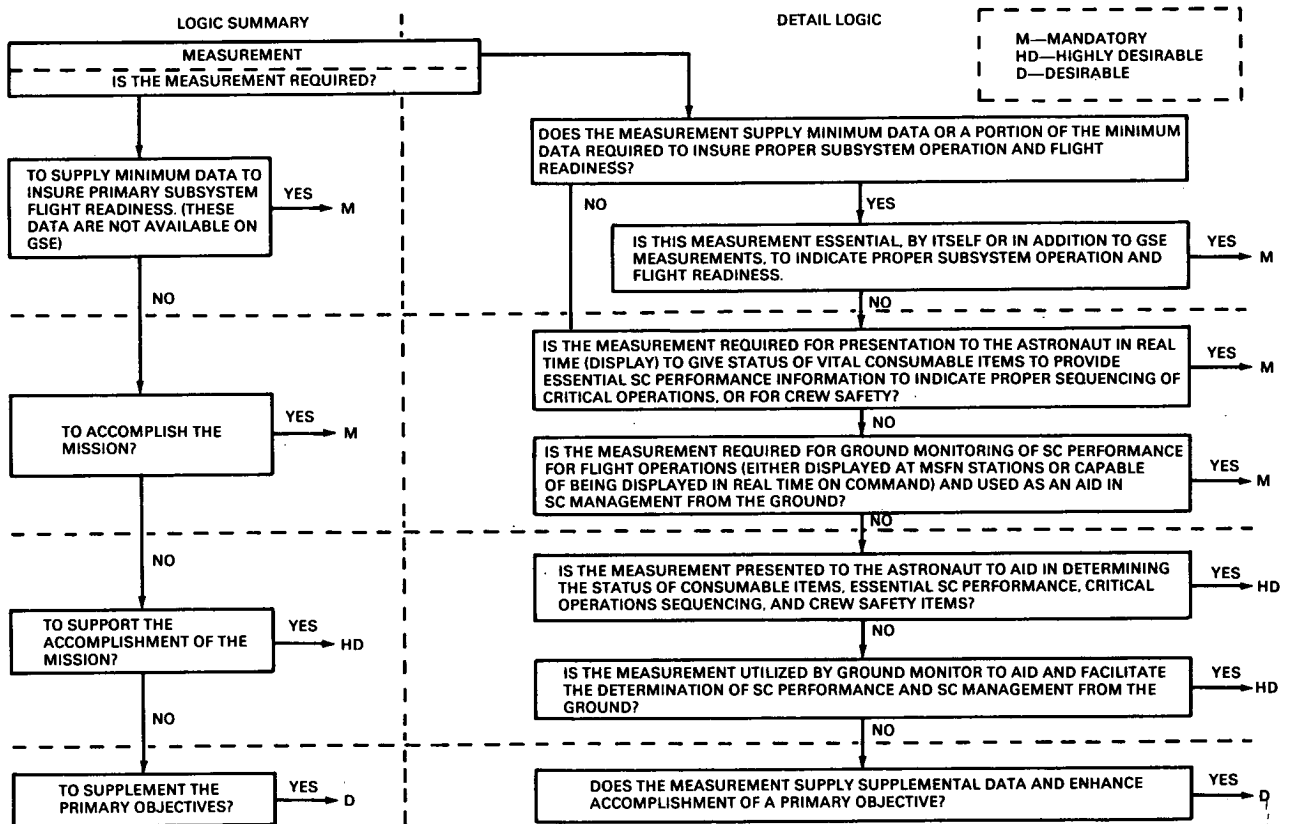


NASA TECH BRIEF



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Logic System Aids in Evaluation of Project Readiness



The problem:

To devise a systematic procedure for determining the readiness of a complex project to go forward as planned. In many cases, decisions as to adequacy and readiness of given project criteria are made by personal judgment, and frequently, no system exists to assure examination of all important criteria.

The solution:

A system of Measurement Operational Readiness Requirements (MORR) assignments logic. In this system, a logic network assigns qualities to all important criteria in a project (e.g., mandatory, highly desirable, desirable but not sufficiently necessary to alter course of action) and establishes a logical se-

(continued overleaf)

quence of measurements to determine what the conditions are.

How it's done:

The MORR assignment logic consists of detail logic and a logic summary. The detail logic contains a series of related questions that are posed for examination of each parameter to yield a "yes" or "no" answer. The user progresses through the questions asked, following the logic indicated until an assignment is made. The logic summary may be used to quickly examine a parameter in order to proceed to a point where more detailed questions are required. At this point, the user can cross over to the corresponding area of the detail logic to examine the parameter in detail.

In operation, to determine the operational readiness requirements of a certain measurement, the user begins screening the measurement through assignment logic by answering the logic summary questions in order. When the answer to a given question is "yes," the logic assigns it a requirement classification. If the answer is "no," the user proceeds to the next question. When a question in the logic summary cannot be readily answered, the user proceeds to the set of detail logic and screens the measurement through the corresponding set of detail questions. If the answer to these detail questions is "yes," again a classification is assigned. If the answer is "no," the user goes back to the logic summary and resumes screening the questions.

Notes:

1. The detail logic can be used without the logic summary, but the logic summary should not be used alone unless the user is familiar with the detail logic and can answer each question in the logic summary with a definite "yes" or "no."
2. This system was developed for and is used in determining the operational readiness of Apollo spacecraft missions.
3. The concepts involved in this system can be applied to a number of nonspace applications, such as the development, testing and validation of new drugs; the planning and execution of large scale financing; the planning, construction, and startup of manufacturing facilities; the planning and initiating of advertising campaigns; and many other complex activities.
4. Inquiries concerning this innovation may be directed to:

Technology Utilization Officer
Manned Spacecraft Center
Houston, Texas 77058
Reference: B66-10457

Patent status:

No patent action is contemplated by NASA.

Source: T. J. O'Brien and S. J. Maris
of North American Aviation, Inc.
under contract to
Manned Spacecraft Center
(MSC-753)