#20

[redacted]

73 3059

Encl 10

THE JOINT CHIEFS OF STAFF
WASHINGTON, D.C. 20301

JCSM-301-73
5 July 1973

MEMORANDUM FOR THE SECRETARY OF DEFENSE

Subject: Communications Security for Civil Meteorological Satellites (U)

1. (U) Reference is made to:

a. A memorandum by the Director of Defense Research and Engineering, dated 26 February 1973, subject as above, which requested recommendations regarding the selection of communications security (COMSEC) provisions for the operational meteorological satellites of the National Oceanic and Atmospheric Administration (NOAA), Department of Commerce (DOC).

b. The US Communications Security Board document 3-12, dated 15 April 1970, subject: "National Policy on the Security of Meteorological Satellite Information (U)," which establishes the national policy on COMSEC for meteorological satellites and, among other things, designates the Secretary of Defense as responsible for selecting the COMSEC provisions to be employed in all operational meteorological satellite systems.

2. (U) The Joint Chiefs of Staff recommend that all civil meteorological satellites be equipped with appropriate devices for receiving secure command and control information via the communications up link from US command stations. This capability is considered a national necessity to preclude a hostile nation gaining a military advantage by assuming control of civil meteorological satellites, thereby denying US civil and military users the weather data derived therefrom. Securing of the command and control information to the satellite is in consonance with reference 1b, Chapter IV, Guidelines, and is not interpreted to conflict with the intent of US national policy regarding the international cooperation aspects of the National Meteorological Satellite Program. In addition, securing of the command up link of civil meteorological satellites will enhance the dependability of the data, will insure that no military advantage is gained by a hostile nation through preemption of control, and will, at the same time, provide some backup for DOD Defense Systems Application Program (DSAP) satellites.

~~Classified by Director, J-3~~
~~EXEMPT FROM GENERAL DECLASSIFICATION SCHEDULE OF EXECUTIVE ORDER 11652~~
~~EXEMPTION CATEGORY (3)~~
~~DECLASSIFY ON~~

D

RD

13-M-4619

T43 D

1 of 25 Copies each
6 pages series "A"

[redacted] SEC DEF CONTR No. X-3000

3. (S) Securing of the data down links of civil operational meteorological satellites, as is currently done on the DOD DSAP, would be highly desirable to complement DOD DSAP satellites and provide additional operational flexibility during crises or general war. However, the Joint Chiefs of Staff do not recommend securing of civil meteorological data down links for the following reasons:

a. The cost of equipping civil satellites and both military and civil ground stations with security devices for contingency use only cannot be justified as long as a separate DOD satellite program exists (DSAP) that provides meteorological data in support of certain national and military requirements.

b. The current and projected future orbital parameters of the civil meteorological satellites and their orientation toward support of international programs of the World Meteorological Organization preclude full satisfaction of DOD primary and secondary user mission requirements even on a contingency basis.

4. (S) The Joint Chiefs of Staff further recommend that both polar orbiting and geosynchronous civil meteorological satellites be designed for selective silencing by secure command up links over designated geographic areas or at specific times as outlined in subparagraph 4c(1)(b) of reference 1b. When employed, the adverse effect of selective silencing on commercial and other governmental activities could be partially offset by providing essential information to NOAA for these users from military meteorological sources.

5. (S) The costs associated with implementing the above recommendations in civil meteorological satellites can only be determined through extensive engineering cost analysis; however, it is anticipated that the costs would be comparable ($165,000 per ground station and $770,000 per satellite) to those incurred by the Department of Defense in providing the same capability in such programs as the DSAP.

6. (S) If, as a result of the ongoing Office of Management and Budget study, a convergence of DOD and DOC satellite programs which provide meteorological data should be directed in the future, the advisability of securing the data links in the resultant joint use spacecraft would have to be evaluated.

For the Joint Chiefs of Staff:

MARTIN G. COLLADAY
Major General, USAF
Vice Director, Joint Staff