

BACKGROUND PAPER

ON

CURRENT MAPPING CAMERA SYSTEM (MCS) AND
METRIC PAN SYSTEM (MPS) DISCUSSIONS AND ACTIONS
AS OF 6 MARCH 1975

This paper covers (1) a brief background leading to the Metric Pan System proposal, (2) the principal decisions to date, and (3) the principal actions which remain underway.

- The Mapping, Charting and Geodesy Working Group (MC&GWG) and the DMA had tasked the NRO early in 1974 to conduct a study to determine the feasibility and alternatives for providing an attitude capability for the panoramic cameras 1
- The MC&GWG is chaired by the DMA, with membership by Army, Air Force, Navy, DIA, US Geological Survey, CIA. The NRO provides technical advice, simulations, etc.
- NRO tasking was necessary since neither DMA nor the MC&GWG have direct access to the system contractors 2
- The results were very positive, identifying several possible techniques, and were the basis for the subsequent proposal for an MPS 3
- AF/IN supported DMA proposal. Main reasons are:
 - We have used the reduction of the target error (Geodetic error) to achieve weapon accuracy to the point where it probably will become cost ineffective to attempt to reduce much further
 - Provided sufficient coverage is achieved, subsequent acquisition systems (i.e., KH-11) need only address cultural changes. Might not require metric quality. This could be very cost effective
 - KH-9 MPS would allow the accumulation of a high quality source material data base which might well be the epitome for MC&G
 - If greater accuracy were required in future than would be available in this data base it would have to be satisfied by weapon system development

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- The most stringent operational requirements to be satisfied by the DMA and the state-of-the-art technical objectives for which the DMA must initiate planning come from the Air Force
- Briefly summarized, the DMA proposal asked for:
 - A modification of the MCS to increase the spool film capacity by 20% (NRO proposed)
 - To be incorporated on already bought MCS perhaps as early as Mission 1215
- Make certain changes to allow pan camera photography to have metric capability. Program Memorandum, 11 Jan 75, from DMA to ASDI stated that it would be more advantageous to satisfy current and long term metric requirements by purchasing an MPS now rather than two additional 12" mapping cameras as presently programmed
- MPS to be operational perhaps as early as Mission 1215
- During DMA pre-briefs to Dr. Hall's staff, Mr. Vance reportedly agreed to the proposed modification of the MCS
 - This agreement by Mr. Vance resulted in deletion of this item in briefing to Dr. Hall
- AF/IN agreed to assist in locating AF FY 75 funds in exchange for FY 76 funds (.6 million for MCS modification and .5 million for MPS "Study")
- Funds located. To date, still available
- Our efforts to staff the transfer of funds have found no apparent consensus of opinion regarding MCS modification agreements. DMA is pursuing and they expect a written response from OASDI during current week
- Detailed briefings were presented by DMA staff to both NRO staff and ASDI staff prior to briefings to Dr. Hall and Secretary Plummer. Complete agreement had apparently been reached at staff level. Dr. Hall briefed on 14 January 1975 and again 17 January 1975. Secretary Plummer briefed on 13 January 1975
- Dr. Hall, by memorandum, 31 Jan 75, responded to the DMA Memorandum by directing:

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- Purchase of two MCS for Missions 1217 and 1218 as being consistent with the presently identified and near term requirements (known as Option 1), and
- ~~An NRO-funded study of alternative means for providing metric quality attitude information to the pan system~~

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- Study will address the several techniques originally identified by NRO
- NRO, by message, 7 Feb 75, outlined the required study to be completed early enough for decision making which might provide an MPS application to missions beyond 1218 (1981+)
- NRO suggested FY 75 funding could be reduced since MPS would not be required for Missions 1217 and 1218
- DMA, by memorandum to ASDI, 14 Feb 75, responded to Dr. Hall
- Agreed with decision to buy two additional MCS to assure a continuing metric capability and to provide greatest likelihood of satisfying current MC&G requirements
- Stated this would not satisfy projected requirements
- Expressed concern for early "study results" and for earliest MPS mission capability possible

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HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON, D.C.REPLY TO
ATTN OF: IN (AFIS/INTB)

10 MAR 1975

SUBJECT: Status of Metric Pan System Proposal (S)

TO: SAF/US (Mr. Plummer)

1. Reference our discussion on 26 February 1975.

2. I am providing for your information an internal AF/IN Background Paper prepared by my staff to summarize the status of Mapping Camera System and Metric Pan System actions and discussions as we know them to date.

1 Atch

Background Paper (TS/TK/B) ☐
(1 c) (3 pages)
GEORGE J. KEGAN, JR.
Major General, USAF
Asst Chief of Staff, Intelligence

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