MEMORANDUM FOR: Comptroller, OSA

SUBJECT: Concept of Operations, Project AQUILINE

1. This memorandum will outline the OSA concept of operations for project AQUILINE for FY 1969 thru FY 1974. This concept is based on the following assumptions:

a. OSA will support AQUILINE in the test phase through completion of the Proof of Concept (FY69).

b. OSA will operate AQUILINE in the operational phases (FY70 thru FY74).

c. "Proof of Concept" ends at the completion of the final test phase of the model aircraft (early FY 1970).

d. The airframe, sensors, ground control unit, to be used for full operational employment by OSA, will be determined prior to the final test phase of the model aircraft (start of FY 1970).

e. Operational range of the model aircraft will not be more than.

f. Operational range of the model aircraft will not be more than.

g. Targeting for project AQUILINE will be dependent upon on-going sensor development, and it is not possible to describe accurately the exact mission role and functions of the project at this time.

2. Interim Operational Concept FY 1969:

OSA will initiate actions to integrate AQUILINE into the OSA structure starting with FY69. The OSA concept for FY69 will be training, testing and exploring the methods of employing this system. To implement this concept it will
be necessary for OSA to use the existing AQUILINE ground facilities and to have six flyable model aircraft. With this equipment it is conceivable that should an emergency situation arise there could be a short range mission flown in FY 1969.

3. FY 1970 Operational Concept:

Starting with the first of FY 1970, OSA will begin to man and operate the AQUILINE project using the model aircraft. By mid 1970 project AQUILINE is to be manned with sufficient personnel to provide for two mobile and one fixed units. The mobile units will be deployed to and from the parent fixed base as and when the situation dictates. To implement this concept, ten model aircraft and three ground control stations plus the associated sensor systems will be required by end FY 1970. During the last quarter of FY 1970 it will be possible to conduct multiple missions with the AQUILINE vehicle.

4. FY 1971 thru FY 1974 Concept:

It is assumed that there will be ten missions per year for project AQUILINE. This should require the purchase of a minimum of five aircraft per year for replacements and spares.