

# *Early Air Traffic Control - From NTDS to ARTS*



Jack Sater

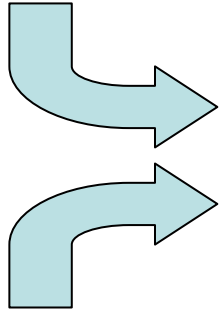
Retired Director, Air Traffic Control Engineering



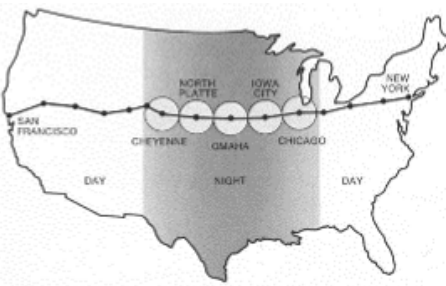
“The FAA was put in contact with Univac by the Navy, who wanted to show Congress that their work on NTDS should continue to be funded because it also had application to civilian efforts, such as *Air Traffic Control.*”

# Early ATC Genealogy

NTDS



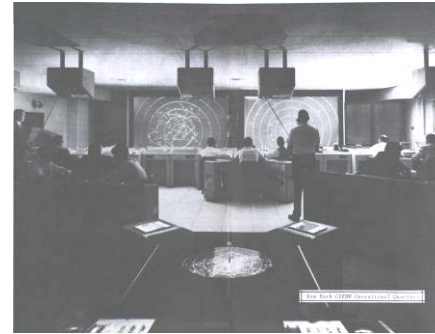
FAA's  
Project  
Beacon



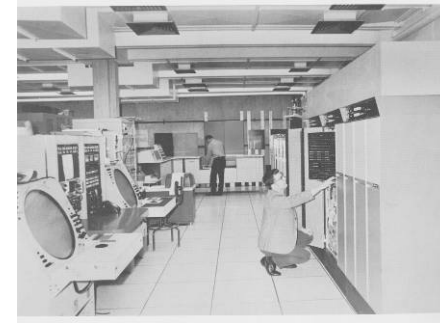
Atlanta  
ARTS I  
1963 award



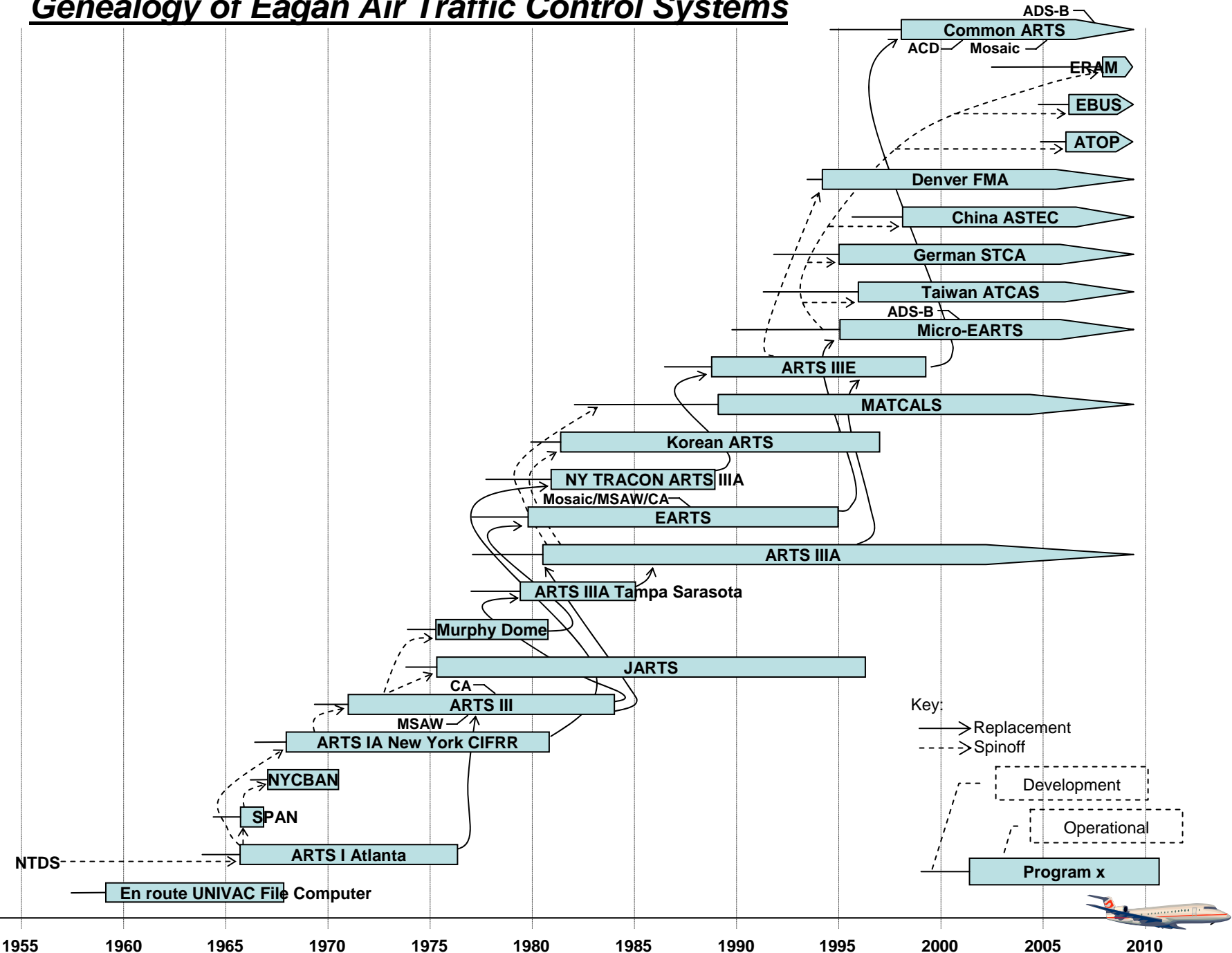
NY CIFRR  
ARTS IA  
1966 award



ARTS III  
1969 award  
64 U.S. sites



# Genealogy of Eagan Air Traffic Control Systems



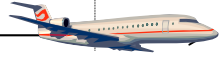
Key:

- Replacement
- - - Spinoff

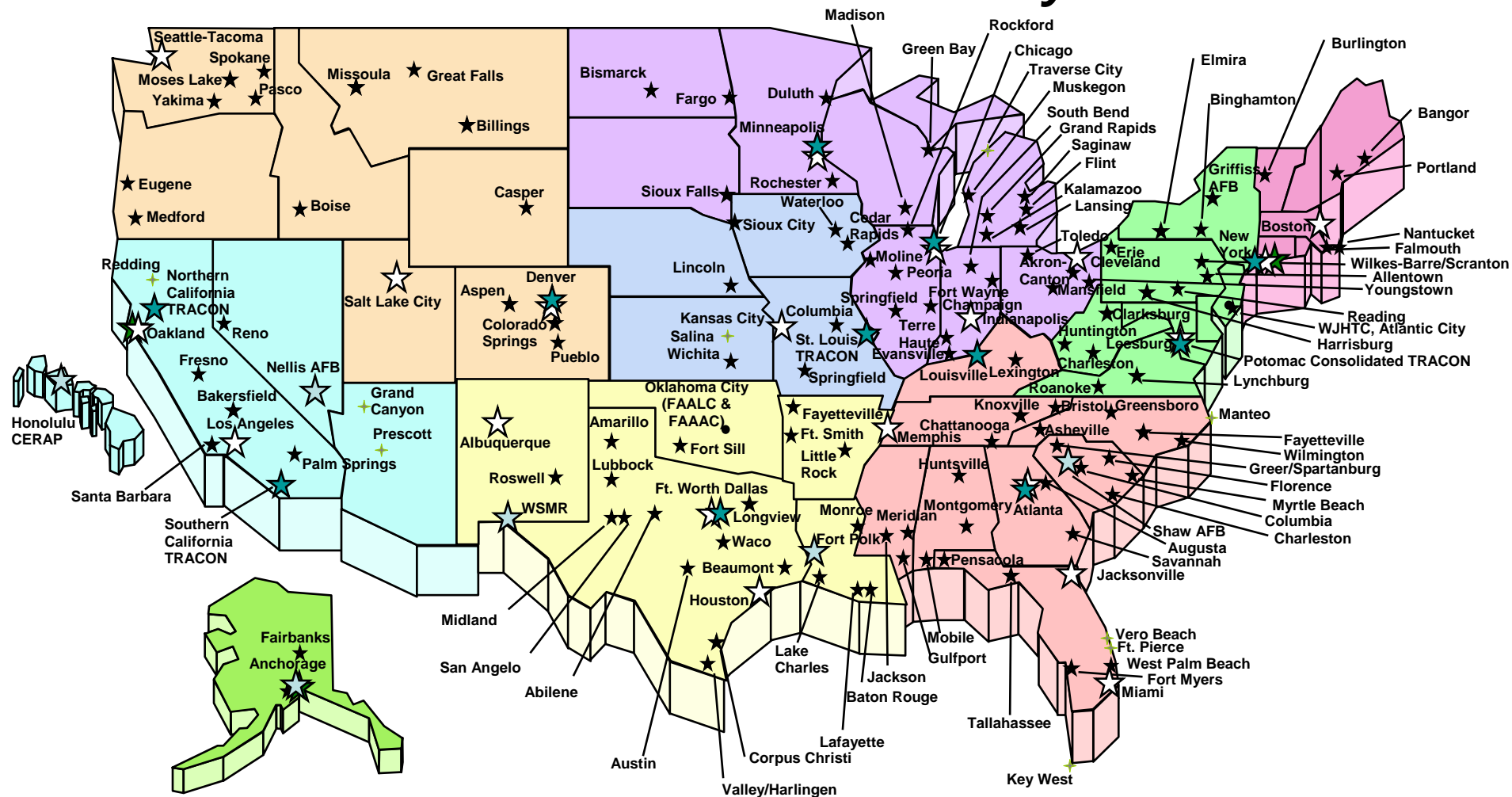
Development (dashed box)

Operational (solid box)

Program x



# Today's Lockheed Martin Terminal, Enroute and Oceanic FAA ATC Systems



Guam CERAP



Micro-EARTS  
 En Route Centers  
 Common ARTS  
 Oceanic



San Juan CERAP