

TACAMO History

TACAMO's Birthright – JFK in Cuban Missile Crisis

- **CNO's "Number One Priority" project – assured connectivity to SSBNs**
- **Classified Top Secret – Known only as CNO #1 Priority**
- **LT Jerry Tuttle (later VADM in charge of all Navy comms) selected to lead**
 - **A-4 Attack pilot, just completed comms engineering at NPGS Monterey**
 - **Assigned to OPNAV 941- Sub Comms office in Pentagon**
 - **Director of Navy Comms RADM Roeder briefed the need and urgency**
 - **Told LT to "Take charge and move out"- Tuttle made it an acronym**



Jerry Tuttle – **Father of TACAMO** - Guest Speaker at Wing Commissioning

- Boot camp in 54, NAVCAD, A-4 pilot in Viet Nam War
- NAVCAD in 56, Wings in 57
- NPGS Comm Engineering 1962
- OPNAV 94 1962-1965- TACAMO Project
- Viet Nam- A-4 Skyhawk – DFC and Air Medals
- CO tours- VA, AOR, CV, CAG, 6th Fleet
- JCS J-6, OP 94



TACAMO History

TACAMO System Development



- **Test Pilot LCDR Walt Reese (HOF '12) locates an EC-121 at Pax back line**
- **Airborne Early Warning gear removed at NAS Johnsville**
- **Collins Radio VLF test rig installed and flown off Atlantic coast- May 1962**
- **Navy Site Chincoteague monitored and coordinated with 121 on signals**
- **Verticality, orbit, CV battle group avoidance, weather impacts etc learned**
- **VLF equipment later removed and transferred to borrowed KC-130**
- **Installation at Collins Radio, Addison Field, later Love Field, Texas**



EC-121 Ops Lessons Learned - 1962

- Orbit required to achieve VLF TWA verticality- More V=More Signal strength
- Don't fly TWA in strong wind shears
- Avoid transmission near thunderstorms and icing
- Use moving block of air space if TWA won't retract
- Guillotine needed to separate TWA when unable to retract
- Avoid Carrier Battle Group operating areas

TACAMO History

Development Period '62 – '63

- **Program goal: Create reliable alternative to fixed submarine VLF broadcasts until large array, mid-CONUS Extremely Low Frequency (ELF) was ready**
- **Van based concept developed to conceal true mission**
- **Modular Roll On/Roll Off with three vans - Operators and radios, power amplifier, antenna reel/wire- 25 KW – single TWA – 35,000 ft of wire**
- **Collins Radio built TACAMO I installed in borrowed KC-130F 149806 at Addison Field, Dallas Texas- 1963**
- **LT Tuttle flew as director in remote world area VLF testing of propagation to subs – S Atlantic – SW Pacific- 2-3 thousand NM ranges**
- **Submarines, sub tenders, and variety of fixed sites reported results**



TACAMO History

TACAMO Aircraft Fielding

- Bureau of Weapons (BUWEPS) Lyle Bercier given responsibility to support CNO's Number 1 Priority project
- Meets with VADM Jimmy Thach in OPNAV Pentagon
- Directed to go to Marietta Georgia Lockheed plant
- Takes over control of 4 USAF C-130s on the assembly line
- First 4 aircraft, C-130G aircraft given Navy BUNOs -late 1963
- New Navy tail numbers- BUNOs- 151888-891



Lockheed serial

3849
3858
3871
3878



Air Force Serial

63-7782
63-7790
63-7804
63-7808



Navy BuNo

151888 - VQ-4- Dec 63
151889 - VQ-4- Dec 63
151890 - VQ-3- Dec 63
151891 - VQ-3- Jan 64



VADM Jimmy Thach

- CNO's Aviation Director
- WWII VF-3 CO aboard USS Lexington
- Invented fighter tactic- Thach Weave
- 6 victories at Battle of Midway
- Founded WW II version of TopGun

Lyle Bercier

- MM2 at Manila Bay 7 Dec 1941
- Survived Japanese sinking his ship
- Sailed motor launch boat to Australia
- Senior civilian in BUWEPS

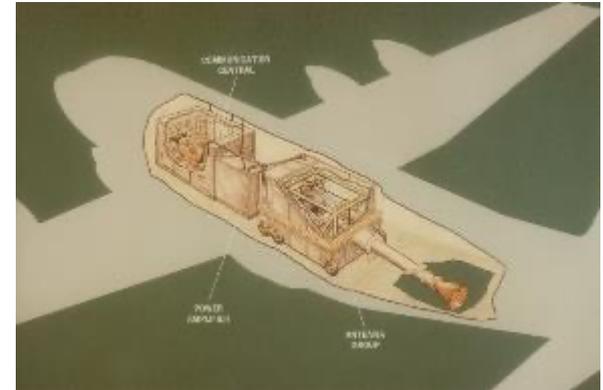
JFK's priority to initiate the system is executed by WW II heroes

TACAMO History

TACAMO II and III

➤ **TACAMO II – Production version of TACAMO I - 1964-1968**

- **EC-130G- 25 KW VLF power output**
- **35,000 ft Trailing Wire Antenna (TWA)**
- **50 KVA aircraft generators**
- **3 Roll On/Roll Off vans**
Comm/Power Amp/Reel
- **30 minute TWA extend time**
- **LARGELY used to prove out VLF and match opareas to sub opareas**



➤ **TACAMO III – Improved and Integrated systems – 1968-1974**

- **Installed on EC-130Q aircraft – 156XXX series – “H” models**
- **Single wire TWA**
- **25 KW VLF output power**
- **Mission systems integrated into airframe**
- **22 minute TWA extend time**



Fully operational systems fielded in 18 months – Constantly improved since then