Taking The Night Away From Charlie

• SIXTH TRIENNIAL VIETNAM SYMPOSIUM

• THE VIETNAM CENTER

• TEXAS TECH UNIVERSITY
QT-2PC Aircraft
Six Sheave 3:1 V-Belt Reduction System
Starlight Scopes
“Skonk Works, North Rules
(with respect to Kelly Johnson)

- Limited Access
- Very short Chain Of Command
- Direct contact with customer.
- Minimum inspection, documentation, and reporting.
- Commercial parts and local vendors.
- Many usual DoD & Lockheed requirements waived.
Prize Crew Operational Evaluation (OpEval) Plan

• Add IFR Instrumentation and Comm/Nav Avionics
• Add viewing ports for the Tactical Observers
• Paint the aircraft for night operations.
• Train the aircrews
• Deploy the aircraft to Vietnam within 90 days.
• Conduct nightly surveillance missions.
• Evaluate the quiet aircraft concept and, specifically the Prize Crew Aircraft, in a tactical operational environment.
Up-Loading a QT-2PC into USAF MAC C-130 at NAS Moffett Field, (“Blimp” Hanger in background)
Soc Trang Army Airfield, RVN

- 3500’ Long
- 130’ Wide
- Near Sea Level
- In the Mekong Delta
  Near Bassac R. and
  the South China Sea
Off-Loading the QT-2PC (on its trailer) from the USAF C-130
Uncrating the QT-2PC
Crew Installing Port Wing
Preflight Checkout
Typical Hanger Work 1
Typical Hanger Work 2
QT-2PCs on Ramp
(STAF Tower in background)
Prize Crew OpEval Objectives

• Determine which missions and roles can be performed by quiet aircraft and ascertain whether the results justify further development of the concept.
• Determine the capabilities and limitations of the quiet aircraft in performing those missions and roles.
• Determine the requirements to improve mission performance in a future quiet aircraft.
• The plan also included additional objectives beyond the scope of this paper: Development and identification of tactics, organizational structures, resources, and support for quiet aircraft operational deployment.
QT-2PC Range/Endurance
Prize Crew Mission Planning

• Two four-hour missions per aircraft each night between sundown and sunrise and within a 70-mile radius of Soc Trang.
• Crew change at turn-around.
• On-station times approximately half of the mission time.
• Half-hour a fuel reserve allowed for unplanned events.
• Alternate Airfields:
  • 1st: Binh Thuy VNAFB
  • Tertiary: Tan Son Nhut and Binh Hoa
Prize Crew Ops Shack
Air Crew Brief/Debrief
Aircrew Ingress and Buckle-Up
Pre-Flight Check-out
Salute and Take-Off
QT-2PC in Left Turn
QT-2PC Landing After a Mission
Prize Crew Mission Roles

• Hot Contact, Pre- and Post- Strike intelligence.
• Linear surveillance along routes, trails, roads, tree lines and waterways
• Area and perimeter searches around bases, camps, and outposts: Defense and location of enemy attack positions:
• Support for:
  • Artillery
  • Special Forces and SEALs.
  • Riverine and Coastal Naval Forces
## Prize Crew Sightings

<table>
<thead>
<tr>
<th>Mission</th>
<th>% Total Flight</th>
<th>% Sightings</th>
<th>Sightings/Flight Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>River/Canal</td>
<td>35</td>
<td>70</td>
<td>0.9</td>
</tr>
<tr>
<td>Route:</td>
<td>15</td>
<td>20</td>
<td>0.62</td>
</tr>
<tr>
<td>Area, Coastal, Perimeter</td>
<td>27.5</td>
<td>12.5</td>
<td>0.26</td>
</tr>
<tr>
<td>&amp; Strike Enroute/Training</td>
<td>22.5</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Average</td>
<td>100</td>
<td>---</td>
<td>0.49</td>
</tr>
</tbody>
</table>
Optimum Moon-Target-Aircraft relationship for target viewing and minimum aircraft detectability
QT-2PC Joint Service Air Crew
QT-2PC Joint Service Ground Crew