‘THE ROLE OF CIRCUMSTANTIAL EVIDENCE IN THE OVERALL ACCOUNTING AND IDENTIFICATION PROCESS OF U.S. SERVICE MEMBERS ‘MISSING IN ACTION/UNACCOUNTED FOR’ IN SOUTH EAST ASIA/VIETNAM WAR’

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-Our Mission-

➢ To directly support the Department Of Defense mission to account for U.S. personnel who are ‘Missing In Action (M.I.A.)’ or ‘Unaccounted For’
➢ To support current-day U.S. Air Force aviation mishap investigations
➢ To provide technical and scientific support to various DoD personnel agencies, and military equipment programs
Forensic Analysis by LSEL

- LSEL assists in the identification and accounting process of U.S. M.I.A. service members, through the scientific and forensic analysis of recovered Life Sciences Equipment artifacts.

- Accounting for M.I.A. personnel is possible by identifying Circumstantial Evidence (Life Sciences Equipment artifacts), and associating it with, the involved M.I.A. personnel.
What Is ‘Circumstantial Evidence’?

- Evidence that establishes an inference, which is then linked to a conclusion of fact
- Often referred to as ‘Indirect Evidence’
- In the field of Personnel Recovery and Accounting, *Circumstantial Evidence* may take the form of:
  - Personal Equipment artifacts *(Life Sciences Equipment)*
  - Personal Effects artifacts *(ring, watch, medallion)*
  - Aircraft/Vehicle Wreckage artifacts
Aspects of an M.I.A. Loss Site Recovery

- Items of key significance that are sought in the recovery/excavation of an MIA loss site:
  - Human Remains
  - *Life Sciences Equipment artifacts*
  - Aircraft/Vehicle artifacts
Life Sciences Equipment

- Categories of Life Sciences Equipment:
  - Military Uniform Items (Clothing/Apparel)
  - Personal Equipment Items (Equipment/Gear worn or carried on a person)
    - Flight Gear
    - Ground Gear
  - Escape and Survival Equipment
    - Aircraft Seats
    - Survival Kits & Gear
Analysis of Life Sciences Equip. Artifacts

Life Sciences Equipment artifacts often display and provide highly unique and very specific evidence details, which are not found or displayed elsewhere.

The forensic and scientific analysis of Life Sciences Equipment artifacts can often support and confirm the presence (and thus accounting) of M.I.A. personnel, with or without the presence and identification of human remains.
Pursued Goals Of The Analysis Of Life Sciences Equipment Artifacts

- What is the number of involved persons that are represented by the Life Sciences artifacts?
- What indicators of survivability are displayed by the artifacts?
- What Service Branch is represented by the artifacts?
- What vehicle type, and escape system (if involved), is represented by the artifacts?
- What is the time frame of loss that is represented by the artifacts? (i.e. early 1966, mid-1969, etc.)
- Are the artifacts consistent with the involved loss details, and also one another?
LT Jeffrey M. Krommenhoek, USN

- LT Jeffrey Morris Krommenhoek, United States Navy
- Lost over NVN on 25 October 1967, of unknown causes
- 26 YOA at time of loss
- Born 27 October 1940
- Native of Iowa
- Single; unmarried; no children
- Family: both parents, one brother
- U.S. Naval Academy graduate, Class of 1959
LT Jeffrey M. Krommenhoek, USN

➤ LT Jeffrey Morris Krommenhoek, United States Navy

➤ Attack Pilot of VA-163, “Saints”
  ➤ Flew A-4E ‘Skyhawk’ bomber
  ➤ Flew first SEA combat tour with VS-37, aboard USS HORNET
  ➤ Flew S-2E ‘Tracker’
    ➤ Anti-sub/Ocean surveillance missions
  ➤ August 1965-March 1966
REFNO 0875: LT J. Krommenhoek

- LT Krommenhoek was lost on 25 October 1967, over NVN
- Attack pilot assigned to VA-163
- Aboard USS ORISKANY
- Assigned to VA-163 only 47 days (reported on 08 Sept 1967)
- Went missing on a major air wing strike against Phuc Yen airfield, North Vietnam (north of Hanoi)
- Last seen evading missiles just prior to attack
- No communications received
**Attack Squadron 163 “Saints”**

- LT Krommenhoek was the sixth of eight total VA-163 pilots lost during 1967-68 cruise.
- Worst loss rate of any USN squadron during the VN War.
- 5 KIA/MIA; 3 POW; 8 total pilots lost.
- All original unit aircraft did not survive tour.

**Uncommon Valor:**
- 3 Navy Crosses
- 7 Silver Stars
- 34 Distinguished Flying Crosses
- 4 Purple Hearts
LT Krommenhoek was lost on 25 October 1967, over NVN

LCDR John S. McCain was lost on 26 October 1967, over NVN

Was shot down on a major air wing strike against a thermal power plant in Hanoi

Assigned to VA-163 only 26 days (reported on 30 Sept 1967)

Ejected from aircraft; survived

Taken as POW, and held for 5½ years in NVN
Recovery of ‘REFNO 0875’ site

- In January 1995, a U.S. team of ‘Joint Task Force-Full Accounting’ locates the possible crash site of LT Krommenhoek in Minh Phu Village, NVN: Recommends excavation of site.
Recovery of ‘REFNO 0875’ site
Recovery of ‘REFNO 0875’ site
Recovery of ‘REFNO 0875’ site
Analysis of ‘REFNO 0875’ artifacts

- Recovery team excavates the crash site in October-November 1995
- It finds six possible human remains fragments, and moderate amounts of Life Sciences Equipment artifacts
Life Sciences Equipment artifacts frequently survive in some form, and are thus able to be recovered and analyzed as evidence.

Life Sciences Equipment items are typically made from synthetic materials (nylon, rayon, fiberglass), and thus do not degrade or erode easily over time.

Fragment of a USN NOMEX flight suit

Has not degraded physically
Life Sciences Equipment artifacts usually display unique and distinctive construction details and features.

These unique features/details are much like individual fingerprints, as they are often unique to a specific area of origin, on a specific piece of Life Sciences Equipment.

USAF LPU-2/P Life Preserver

Favored by USN A-4 pilots in 1967 timeframe
When a Life Sciences Equipment artifact is properly analyzed and identified, it can be aligned to a specific area of origin, on a specific equipment item.

- USN Flying Safety Boot outsole
- Left boot, ball area
- ‘Vibram’ brand design
- Widely used by USN pilots during the 1967 timeframe
Each Life Sciences Equipment artifact provides a small, but critical, segment of information regarding the loss incident, and the overall fate of the involved individual.

- Lap Belt Fitting, from a Parachute Container
- Used only in A-4 a/c
- It’s recovery indicates that no ejection occurred, with seat/pilot still in aircraft at crash impact
- Corrosion supports lengthy residence at site
The identified Life Sciences Equipment artifacts all consistently support the conclusion that the involved pilot did not eject prior to crash impact.

The displayed damage signs, and environmental exposure forms, all support a non-survivable (fatal) crash, with no attempt to eject being made.

All recovered artifacts are reflective of use in a US Navy A-4 aircraft and escape system, and are consistent with use by a Navy A-4 pilot, during the 1967 time frame.

All the artifacts aligned to the involved case details and facts.
Jeff Krommenhoek
MIA  25 Oct 67
REFNO 0875:
Life Sciences Equipment Types, as represented by the identified and aligned artifacts

- Flying Helmet, Type APH-6
- Oxygen Mask, Type MS-22001
- Torso Harness, Type MA-2
- Survival Vest, Type SV-2
- Life Preserver, USAF Type LPU-2/P (Unofficial USN Modification)
- Anti-G Suit, Type Z-3
- Flying Safety Boot, (Official USN Modification)
- Parachute Components
They shall grow not old, as we that are left grow old; Age shall not weary them, nor the years condemn. At the going down of the sun and in the morning, We will remember them.

‘For The Fallen’, by Laurence Binyon September 1914