

Headquarters U.S. Air Force

Fly – Fight – Win

AF Audiologic Research Past, Present, and Future



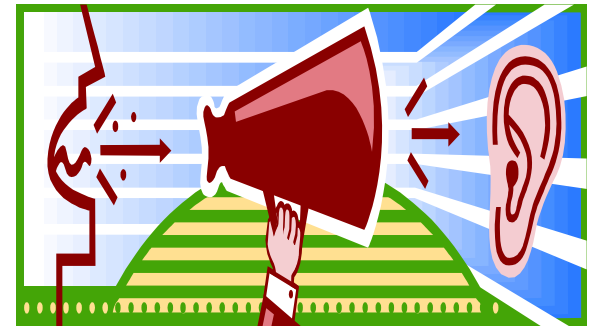
**Lt Col Joe Narrigan
AF/SGRC**

**1Lt Tamarah Murphy
79AMDS/SGPE**



Information Brief

- 30 minutes
- Unclassified



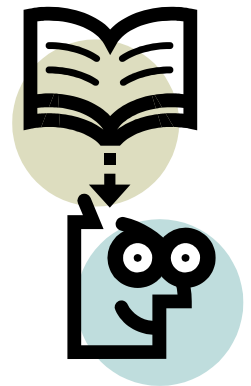
Fly – Fight – Win



Purpose

- **To inform AF audiologists of:**
 - **The correct process to initiate and fund research**
 - **Requirements to ensure subject protections**

- **To inspire audiologic research by highlighting:**
 - **Past accomplishments**
 - **Present efforts**
 - **Future possibilities**





Before You Begin

- You'll need:
 - A determination regarding whether your plan is human research and / or exempt
 - If your plan is non-exempt human research:
 - Institutional Review Board (IRB) approval
 - Assurance of Compliance (Institutional or Individual Investigator Agreement)
 - Investigator training (as determined by IRB)
 - Funds (varies by protocol)
 - Your assignment location determines your path



Research / Human Subject

- **Is your activity research involving human subjects?**

- **Research:**
 - **A systematic investigation, including R&D, T&E, designed to develop or contribute to generalizable knowledge (32 CFR 219.102(d))**

- **Human Subject:**
 - **A living individual about whom an investigator obtains data through intervention or interaction with the individual, or identifiable private information (32 CFR 219.102(f)(1-2))**



Requirements

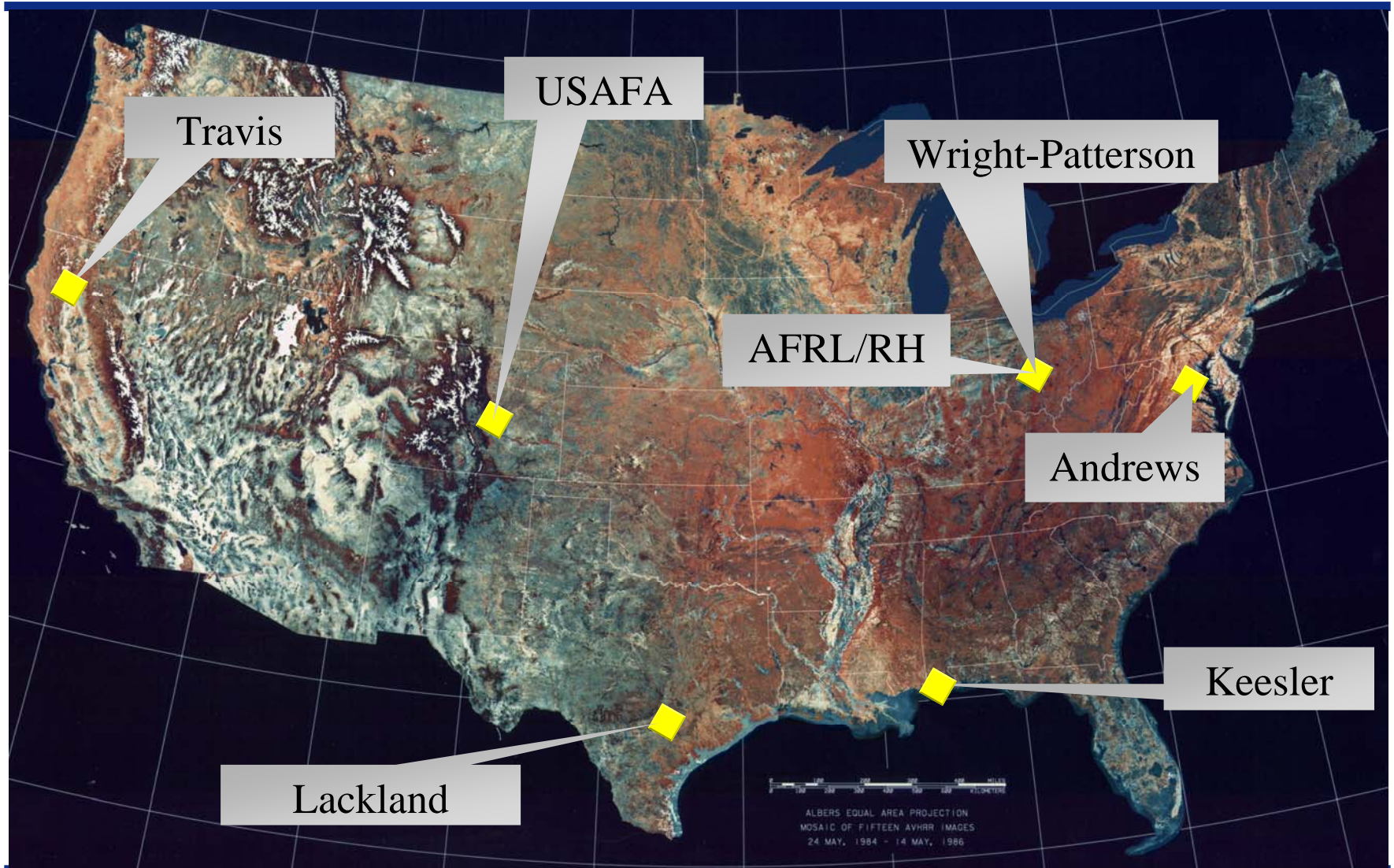
- Requirements are managed by AF/SGRS

- Focus research on validated research requirements
 - MAJCOM
 - SG/ROCC
 - CIF / CIP (in support of GME)
 - Talk to CIF / CIP leaders

- Research that supports our ability to fly / fight / win our nation's wars / conflicts
 - War fighter communication needs...



AF Research Facilities with IRBs



Fly – Fight – Win



IRB Contact Information

- **AF Academy, CO**
Gail Rosado
719-333-6593
Gail.Rosado@usafa.af.mil
- **AF Research Lab, WP AFB, OH**
Lt Douglas C. Grafel: 937-656-5437
Douglas.Grafel@wpafb.af.mil
- **David Grant MC, Travis AFB, CA**
Rebecca Austria: 707-423-7263
Rebecca.Austria02@travis.af.mil
- **Keesler AFB, MS**
Randi Byrd: 228-377-7926
Randi.Byrd@keesler.af.mil
- **Malcolm Grow Medical Center (MC)
Andrews AFB, MD**
Cheryl James: 240-857-8745
Cheryl.James-02@andrews.af.mil
- **Wilford Hall MC, Lackland AFB, TX**
Rachel Montez: 210-292-4683
Rachel.Montez@lackland.af.mil
- **Wright Patterson (WP) MC, WP AFB, OH**
Debbie Bachman: 937-257-4242
Debbie.Bachman@wpafb.af.mil



Institutional Review Board

- **#1 consideration is human research protection**
 - **Scientific merit**
 - **Sufficient power analysis (determination of “n”)**
 - **Sufficient informed consent**
 - **Additional protections afforded to DoD**

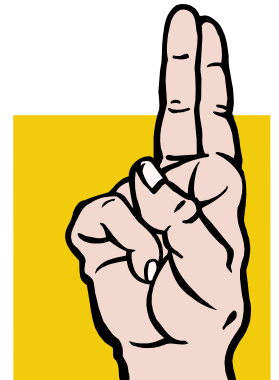




Assurance of Compliance

- **An assurance is a “promise” signed by an institutional official stating their institution will conduct research in compliance with all Federal / DoD laws and regulations regarding human research protection**

- **An Individual Investigator Agreement is a similar “promise” signed by an investigator who does not have an affiliation with an institution**





Investigator Training

- Individuals wishing to conduct human research must complete investigator training
- Training requirements are determined by the IRB named on the Assurance
- All AF IRBs utilize the Collaborative Institutional Training Initiative (CITI)
 - www.citiprogram.org
- Contact your IRB before logging onto CITI to ensure you take the correct training modules



Opportunities for Funding

- Each CIF / CIP receives \$\$ baseline research funding
 - They locally rack/stack to determine cut line
- AF/SGRS funds research
- Broad Area Announcement (BAA)
- Congressional research funds





Transition Slide

- Your association with the AF gives you an amazing opportunity to conduct meaningful research
- The structure is built
- There are people who can help get you started
- Funds are available
- Learn the processes then go forth and research
- 1Lt Murphy:
 - Role of audiology in research
 - Past, present, and future needs



What we bring to the fight

- **Role of AF audiology**
 - **Hearing Conservation (HC)**
 - **Clinical Services**

- **Research**
 - **Research in the profession (standard of care & best practice)**
 - **Research in the AF (standard of care, best practice, new technology, advance our reputation as being on the cutting edge!)**



Research Past

- **AFRL, Brooks City Base, and WHMC**

- **Focus**
 - **Mainly HC – evaluation of Hearing Protective Devices, communication devices/custom headsets**

 - **Some clinical interest – Hearing Aid benefit, tinnitus, vestibular function, Central Processing Disorders, and audiological assessment techniques**



Research Present

- **AFRL, Brooks City Base, and WHMC**
 - **Implantable middle ear transducer**
 - **Tinnitus treatment and management**
 - **Vestibular evaluation and management**
 - **HC efforts**
 - **Evaluation of Digital Frequency Compression aids**
 - **Localization**
 - **Communication technology in the field**
 - **Auditory Processing**



Research Future

- **Tele-medicine/audiometry**
- **Diagnostic methods**
- **Clinical issues**
- **Education**
- **Hearing conservation**



Fly – Fight – Win



Summary

- **Role of AF audiology**
- **Role of research**
- **Protocols: Past, Present, and Future**



Fly – Fight – Win



Questions?



Fly – Fight – Win