

AFRL RESEARCH TOPIC CALL FOR FY13

1. **Research Title:** Human Factors of Intelligence, Surveillance, and Reconnaissance Analysts
2. **Individual Sponsor:** *List the AFRL research topic sponsor's contact information:*
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3. **Academic Area/Field and Education Level:** Psychology (Experimental, Perceptual, Cognitive) and Human Factors (BA/Bs, MS or PhD level).
4. **Objectives:** Develop metrics for ISR analyst performance. Determine the cognitive, perceptual, attentional, and human factors which effect ISR analyst success and failure. Develop new analysis procedures, aids, and augmentation for better performance.
5. **Description:** The task of ISR analysts is to detect anomalies and changes in their data input streams. This is true for junior analysts viewing full-motion video to senior analysts searching for and digesting various written media. Unfortunately, intelligence too often fails in detection. We need answers to three questions: How prevalent are failures to detect both "obvious" and subtle items? Why do detection failures occur? How do we improve ISR analysis? Perceptual and cognitive research shows that people, even when actively looking for anomalies that they have been forewarned about, often miss glaring oddities in dynamic events when they are engaged in information gathering tasks. In addition to psychological research on "change blindness" and "inattention blindness," personality and thinking styles may affect anomaly detection, but the research is still in its infancy. Research projects should focus on detection failures and improvement, but the research need not use or mimic military ISR scenarios.
6. **Research Classification/Restrictions:** This research is about fundamental psychological processes and is expected to be published in the open literature (unlimited public release).
7. **Eligible Research Institutions:** (Check all that apply.)
 Universities (DAGSI) AFIT (only) USAFA

8. **Interest in Summer USAFA Cadet:**

If you are submitting a topic for the USAFA, please indicate if you are also interested in sponsoring a USAFA Cadet in summer of 2013. (**Avg Cost for USAFA Cadet for 33 days is \$5000**):

I would like to sponsor an USAFA Cadet in the summer of 2013: Yes No