Noon: Welcome, Introductions, Agenda Review (Co-chairs).

1210: Review highlights of last MLAIWG, held 25 July 2017 (All).

1220: ML-AI Workshop During GEOINT Community Week, Nov 2017.

- Review DRAFT Workshop Agenda submitted 10 August.
- Discuss latest status, enhancements, next steps.

1250: Update from sub-working groups regarding the MLAIWG’s four work plan topics. (Sub-WG Co-leads).

- Participation, scope, deliverables, milestones, activities, help needed.

1340: Review next steps and wrap-up (Co-chairs).

Lunch Available at USGIF: Sponsored by Cray
1. The meeting convened at noon in USGIF offices in Herndon, VA.

2. We reviewed and discussed progress on our four work plan topics.
   - Co-leads for topics 2, 3, and 4 provided updates on their activities.
   - Topic 2 team met with Gregg B. and discussed initial framework. Requested quick turn on pending survey.
   - Topic 3 sought government Portfolio team review of their planned approach and deliverables.
   - Topic 4 team is looking for a collaborative workspace (virtual).
   - NVIDIA volunteered to explore available resources to support topic 1 since the previous co-leads stepped down.

3. We began planning for a Machine Learning and AI workshop during GEOINT Community Week in November 2017.
GEOINT Community Week
ML & AI Workshop Overview

Where: NGA Allder Conference Center, Springfield, Virginia.
• Venue accommodates unclassified & classified sessions.
Why: help to advance ML and AI applications to problems of interest to the geospatial intelligence (GEOINT) and intelligence, surveillance, and reconnaissance (ISR) community through information sharing, education, networking and collaboration.
What: Themes / topic to explore…
• The state of ML and AI in GEOINT, including analyst perspective and data sets/sources.
• The impact and implications of ML and AI for training and development of GEOINT and ISR professionals.
• Challenges associated with relying on ML and AI (e.g., trusting the tools and methods, explaining results, sparse data, unanticipated behavior, etc.).
• Lessons from applications and advances in commercial world.
• Notable projects demonstrating what is achievable.
GEOINT Community Week

Planning Milestones:

- Aug 10: Draft agenda with proposed speakers to USGIF; initial calendar checks with proposed speakers
- Aug 14: Official invitations and confirmations of speakers begin
- Sep 5: Registration Opens; marketing speakers and sponsors
- Oct 13: Agenda Finalized
- Nov 13: Workshop
1. Develop and deliver educational informational regarding advanced mathematical techniques and algorithms, elaborating on when and where to best apply each type of algorithm and how to reduce the number of false alerts. *Identifying use case(s) / problem domain(s) will be essential to success in addressing this topic.*

2. Identify creative hardware for processing large amounts of data – can the MLAIWG help suggest how the government can build such an architecture?

3. Identify the implications of ML and AI adoption for future GEOINT professionals education / training (USGIF recommendation to help benefit the community). *Should include addressing “the trust issue.”*

Work Plan Topic Co-Leads

Topic #1: Vacant (NVIDIA Investigating Resources)

Topic #2: Frank Tanner, Raytheon / Dr. Willie Williams, Government / Hans Mortensen, NVIDIA

Topic #3: Doug McGovern, IBM / Scott Jachimski, BAH / Peter Hanson, CTC

Topic #4: Todd Bacastow, DGI / Ian Eishen, USAF / Zslot Kira, GTRI
Topic # 2 Sub-WG Update

Participants: Willie Williams, Frank Tanner, Hans Mortensen, Tim Barr

Scope: Identify creative architectures for processing large amounts of data – can the MLAIWG help suggest how the government can build such an architecture?

Deliverables: White paper on options as they relate to government customer set.

Milestones:
- Survey distributed to MLAIWG for comments (originally July, now August)
- MLAIWG responses (August/Sept)
- White paper on options (Sept/Oct)
Topic 3 Sub-WG Update

- **Participants:** Doug McGovern, Scott Jachimski, Pete Hanson.
- **Scope:** Evaluating implications of ML & AI for future GEOINT professionals education and training.
- **Deliverables:** See following pages.
- **Milestones:** Mea culpa! We need to make better progress this month.
- **Activities:** Reached out to AC Portfolio for review of draft approach and deliverables as well as help coordinating a survey of analysts.
- **Help needed:** Well, if we invented the education and training AI capability first, it would be all the help we’d need…
Topic 4 Sub-WG Update

- **Participants**: Todd Bacastow, Ian, Eishen, Zsolt Kira
- **Scope**: Characterize the State of ML and AI in GEOINT focusing on open source data, ML frameworks, and software projects
- **Deliverables**: List of open source datasets suitable for ML by phenomenology
  - List of general ML classification libraries
  - List of open source software projects by application area
  - Summary outputs – USGIF website page, blog post, Trajectory article.
  - GEOINT 2017 Symposium analysis of ML/AI agenda, transcripts, tweets? (reach out to Justin at USGIF)
- **Milestones**:
  - April 2017: Committee formed
  - May 2017: Established focus areas and initial plan
  - June-July 2017: Develop lists, organize, and start to summarize findings
  - August 2017: Explore opportunities to publish findings
  - September-October 2017: Publish findings with USGIF
- **Activities**: Held call to discuss path forward and created Google sheet for collaborative list of findings.
- **Help needed**: Discuss shared workspace w/ USGIF and GEOINT follow-up items.
Next Steps and Wrap-up

• Review action items from this meeting.

• Around the room / phone for final comments.

• Upcoming MLAIWG events:
  • 26 September 2017: MLAIWG monthly meeting (noon – 2 PM at USGIF).