

Overview of the Exercises

26 July 2011, Bulgaria

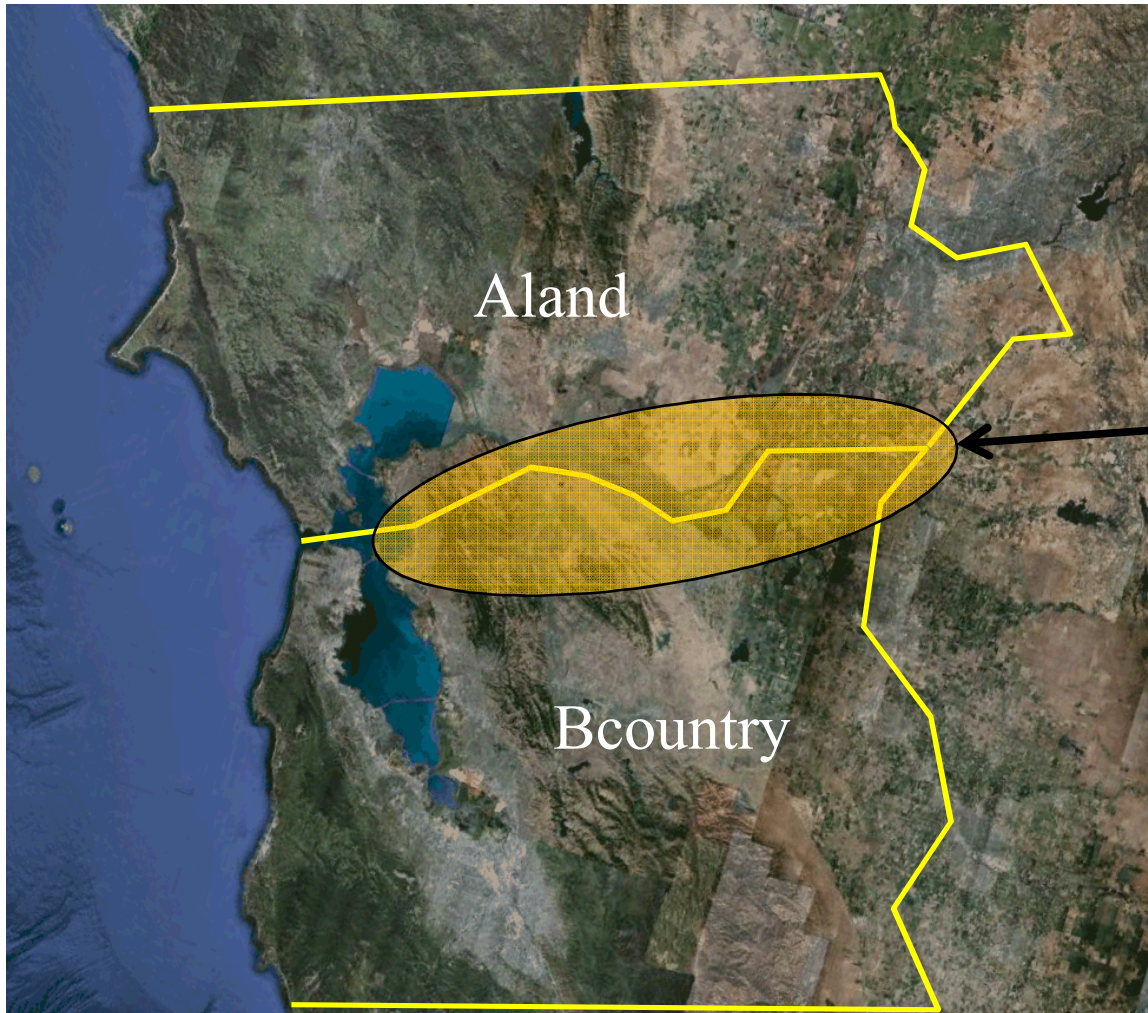
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SAND#**



Sandia National Laboratories is a multi-program laboratory managed and operated by Sandia Corporation, a wholly owned subsidiary of Lockheed Martin Corporation, for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000.



Aland and Bcountry have independently decided to eliminate some obsolete missiles:



Joint border...region of tension...

Exercise 1: Exchange Pre-dismantlement Missile Photos

To increase transparency of the dismantlement—and build confidence in each other—the countries have decided:



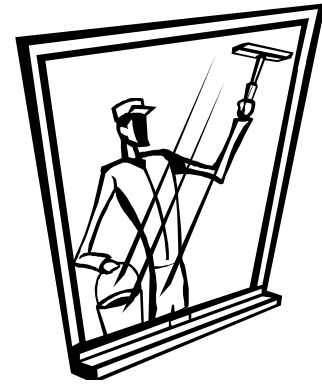
Inform each other of the missile system to be retired...

...provide a picture of a missile to be retired under the program to the other country...



There are no particular requirements about the photos to be exchanged...

...but both sides want to provide as much transparency as possible...



Source: UN.org

...and both sides want to assure the security of information that does not have to be exchanged.

There are four “phases” to the first exercise:

1. Team Discussion/planning—we have allocated 30 minutes
 - a) Pick Teams
 - i. Please make these multi-national teams! (If you like, the instructors can suggest team compositions but you are free to pick your own teams if you prefer.)
 - b) Plan which pictures you are going to take!
 - i. Take at least two:
 - 1) Plan on taking one with and one without a measuring

stick:

Source: G. Forden



- 2) Take more if you like! You can pick which ones to “send” to the other team.

Exercise 1 (con't)

1. Team Discussion/planning (con't)
 - a) Plan what you are going to do to prevent the transmission of information you do not want to transmit and how you are going to prevent it from being transmitted.
 - i. What's in the background?
 - ii. What part of the missile do you not want to show?

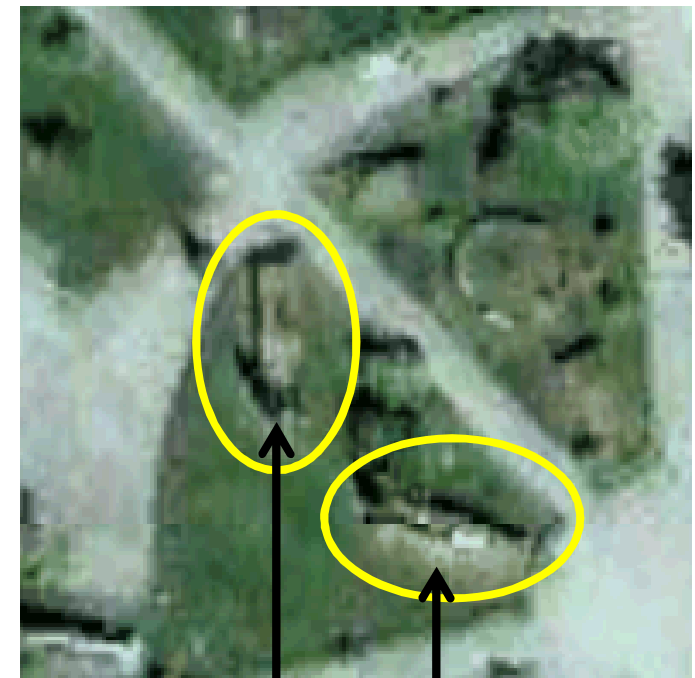
 - b) We have arbitrarily decided that the missile warhead and “control surfaces” are sensitive information and that you should not show those. But **how are you going to prevent it?**

Exercise 1 (con't)

1. Team Discussion/planning (con't)
 - c) Familiarize yourself with the camera equipment and software you will need.

2. Implementation (30 minutes):
 - a) Aland will go out and photograph the SS-23
 - b) Bcountry will go out and photograph the SCUD-B
 - c) **Plan** who is going to do what?
 - i. Who is taking the photograph?
 - ii. Who is responsible for placing the measuring device?
 - iii. Who will shroud missile components (if you decide to do this)

The two missiles to be used in the exercise are near the center of the outdoor exhibits:



SS-23 (Aland)

SCUD-B (Bcountry)

Exercise 1 (con't)

3. **Pre-exchange formatting/evaluation of photos to be exchanged (30 minutes)**
 - a) Upload the photos you took to your computer. (The instructors can help you if you need it.)
 - b) Decide which (and how many) you want to exchange
 - i. Definitely include one with and one without the measuring device—we will pretend that these are two different exchanges.
 - c) Using a program like Power Point, add whatever software masks you want to use to block sensitive information
 - d) Save the photos you want to exchange to jpg format (the instructors can show you how if need be)
 - e) Create a “hash” file for authentication (**if you decide to do this**) for each photo you want to give to the other team.
 - f) Exchange photos (either by thumb-drive or email...the instructors will let you know on which method to use.)

Exercise 1 (con't)

4. **Individual Team evaluation of received photos (30 minutes)**
 - a) Evaluate the photos you receive from the other team:
 - i. Check them against the information available from the Web about the missile (Instructors can help you with any quantitative checks you might perform.) Do you gain an increase in confidence from having the measuring stick present?
 - b) Think about the level of confidence you get from this exercise. The next slide has some questions to help you evaluate your confidence.

Questions to help evaluate the confidence/transparency of this exercise

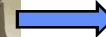
- What level of confidence do you have that the photo represents the missile the other team has declared it would dismantle.? In addition to evaluating this confidence, each team should ask themselves:
 - How much help was the presence of the measuring device to the photo they received?
 - Did including the measuring device in the photo that the team emailed to the other side reveal any information that should not have been released?
- What was the value of the publicly available information in identifying the missile? Was it sufficient to their needs to build confidence that the missile to be dismantled was what it was declared to be? Would the exchange of information about the missile have been any help?
- What could either team have done in the exchange of photographs to increase transparency and confidence?
- Would having a pre-dismantlement satellite image of the missile at the dismantlement site have increased your confidence? How would you have arranged that?



<http://blog.tsa.gov/2008/07/calling-all-lurkers.html>

Exercise 2: Exchange of On-Site Visits

This exercise is designed to let you explore and practice some of the technologies and principles that the “technology” modules presented.



Declarations

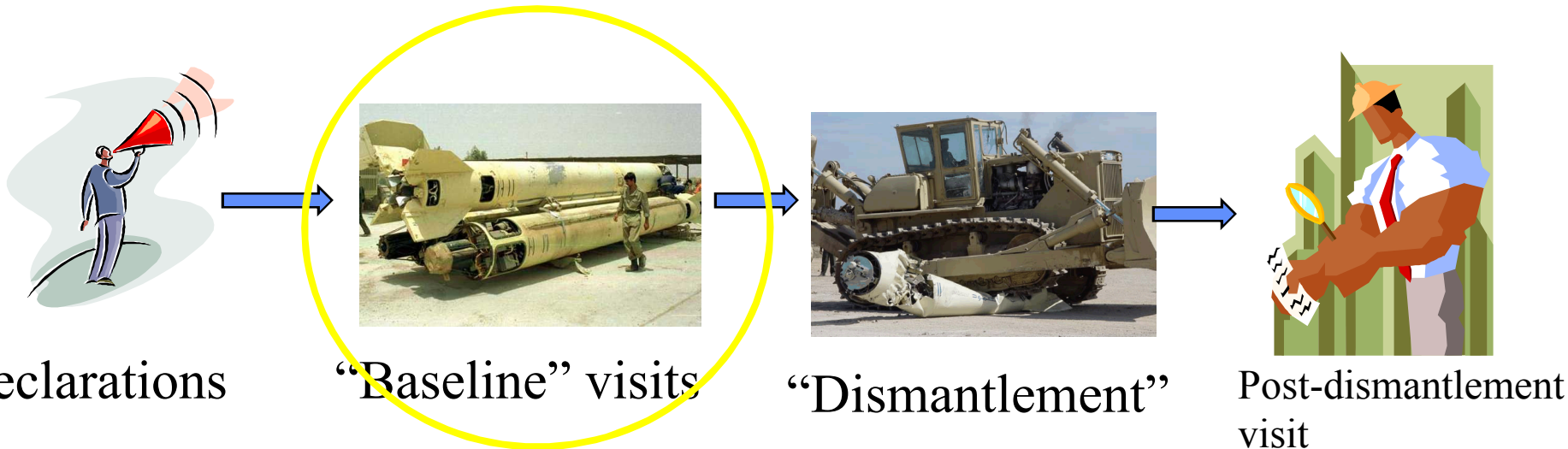
“Baseline” visits

“Dismantlement”

Post-dismantlement
visit

Exercise 2: Exchange of On-Site Visits

This exercise is designed to let you explore and practice some of the technologies and principles that the “technology” modules presented.



Only the Baseline visit will be simulated!

A Baseline visit:

1. Increases confidence that the item to be retired is as has been declared.
2. Lays the ground work for whatever transparency measures have been agreed to.
3. Symmetric between the two sides when they visit:
The same rules that govern Bcountry's visit to Aland's facility will govern Aland's visit to Bcountry's site.

The practical rules for each visit are call the Modalities

Exercise 2 (con't)—the four phases:

1. Planning and Prep-work (1 hour)
2. Modality Negotiations (30 minutes)
3. Onsite Visit/Managed Access (45 minutes)
4. Individual Team After-Exercise Evaluation (30 minutes)

Exercise 2 (con't)—Planning and Prep-work:

1. Planning and Prep-work (1 hour)
 - a) Each team will receive **role-specific** instructions
 - i. A land will play the **Host** (for the SS-23 missile visit)
 - ii. B country will play the **Visitors** (observers of the SS-23)
 - b) During planning, each team will:
 - i. Decide on what they need to do to accomplish their goals.
(Technologies/procedures/...)
 - ii. Decide how to “identify” the missile in the (unsimulated) Post-Dismantlement Visit.
 - iii. Planning what individual members should do during the implementation phase.

Exercise 2 (con't)—Planning and Prep-work:

- c) Decide on backup procedures/technologies if the negotiations fail to reach agreement.
- d) The Host must use this time to set up anything they need for the visit. (Shrouds etc.)

Remember:

All procedures used by one side need to be agreed to by the other side!

Exercise 2 (con't)—Negotiating the Modalities:

2. Modality Negotiations (30 minutes)

- a) Aland will present its plan for managed access

- b) Bcountry will present its plan for increasing transparency (including a list of the equipment they will take with them)

Try not to get bogged down in these negotiations!

If things look like they are not making progress, the instructors will suggest a compromise to keep things on schedule.

Exercise 2 (con't)—Onsite Visit/Managed Access:

3. On-Site Visit/Managed Access (45 minutes)

- a) The procedures agreed to by both sides will be followed for the entire length of this part of the exercise. (Plan accordingly for rest breaks etc.)
- b) Everybody on each team should have a good idea of what they are going to be doing during the exercise.
- c) Everyone must consider safety an important aspect of everything they do!**

Exercise 2 (con't)—After-Exercise Evaluation:

4. Individual Team After-Exercise Evaluation (30 minutes)

Each team will take this time to evaluate what they thought :

- The exercise accomplished
- How much transparency was achieved
- Where were problems or disagreements

After the individual teams have reached an assessment of the exercise, there will be a plenary discussion.



<http://blog.tsa.gov/2008/07/calling-all-lurkers.html>