

ADS-B Technology Application for the Solution
of Operational Tasks in Favor of Federal
Customs Service (FCS)

Flight and Methodical Meetings of FCS
Aviation Key Personnel

11-12 October, 2013

Pscov

Goal of the Meeting:

- ADS-B classes for the participants of the meeting;
- Practical demonstration of ADS-B technology in the development of the interaction of FCS aircraft with vessels and ground vehicles of customs agencies, solution of search-and rescue tasks

Objects, equipped with ADS-B:

- Mi-8MTB-1 helicopter of FCS aviation;
- FCS patrol boat;
- Ground vehicle;
- Ground ATC center

Mi-8MTB-1 helicopter of FCS aviation



FCS patrol boat



ADS-B equipment on the patrol boat



ADS-B equipment on the ground vehicle



ADS-B equipment complete with FGUP “GosNIIAS” small-size MGTR-4 transponder



NITA ATC station



Display at ATC station



Helicopter flight to the boat



TDS-84 display on board a helicopter



Patrol boat

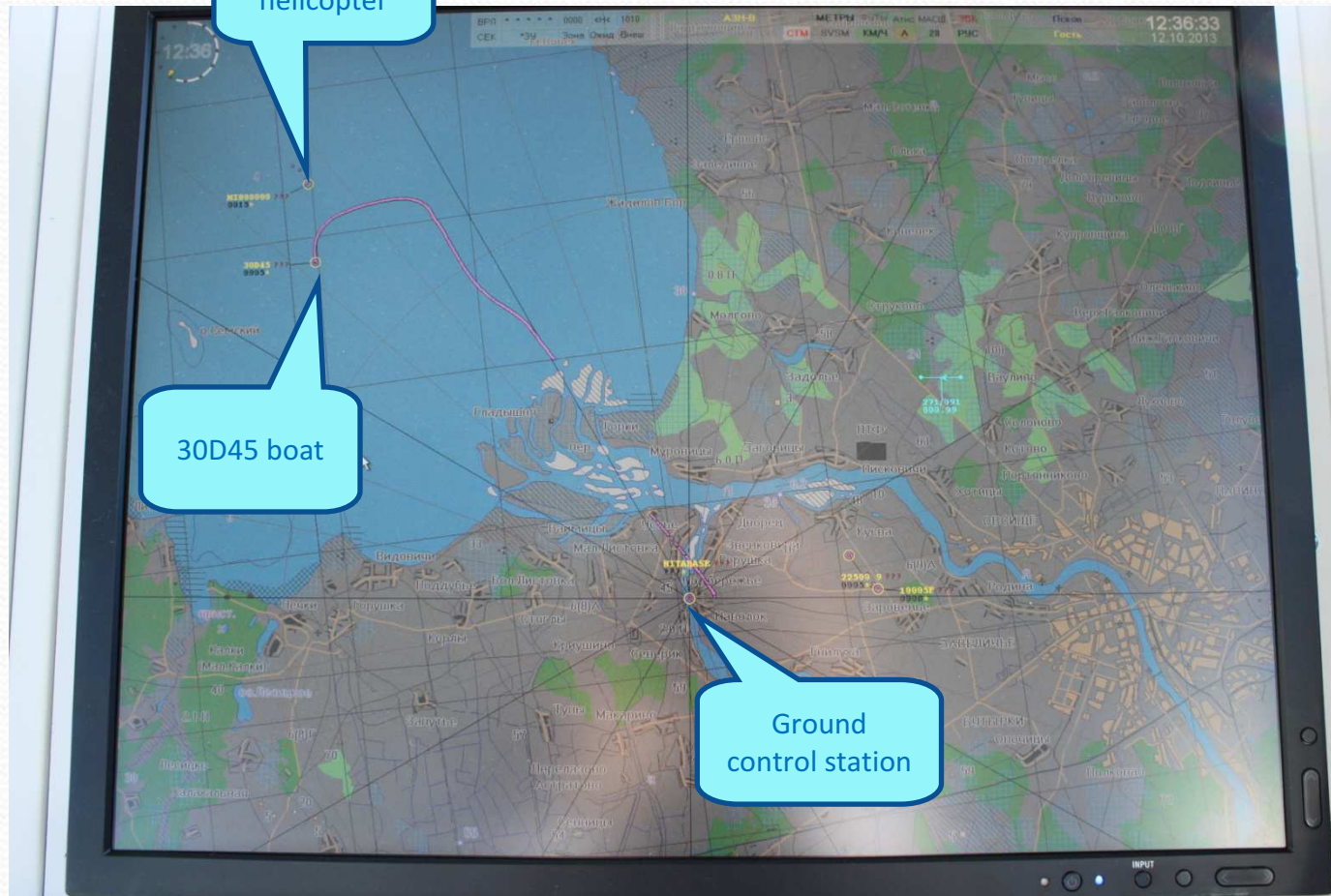
Mi-8MTB-1 helicopter

NITABASE control station

Information about ADS-B objects

Detailed information about the boat (highlighted object)

Helicopter and boat interaction



Patrol boat

Mi-8MTB-1
helicopter



ADS-B objects on the display



Return of the helicopter to the landing site



Mi-8MTB-1
helicopter

NITABASE
control station

Mi-8MTB-1
helicopter
mark

Conclusion

1. ADS-B is an efficient and low-cost tool providing surveillance of aircraft flights.
2. ADS-B is the most advanced technology of monitoring and control of moving objects and is the basis for the solution of special tasks.
3. VDL Mode 4 provides the full-scale ADS-B work («Out» and «In»), including implementation of adjacent applications in the broadcast mode.
4. ADS-B mode 4 allows to facilitate flights of state aviation aircraft, their interaction with ground and naval objects.