

Answer of the Federal Government to the Minor Interpellation submitted by the Members of the Bundestag Andrej Hunko, Christine Buchholz and other Members and the Left Party parliamentary group on 12 June 2015

Bundestag printed paper 18/5224 of 15 June 2015

NATO drones in the Alliance Ground Surveillance programme

Preliminary remarks of the questioners

Six years ago, 13 NATO members agreed to establish the “Alliance Ground Surveillance”(AGS) in Sicily (Bundestag printed papers 17/14571, 18/1794). The programme is based on drones and comprises an air and ground segment. Together, they form the core of the new system, the “AGS Core”. Initially the plan was to procure eight “Global Hawk”drones, the number has since been reduced to five. On the ground, piloting and flight-control installations are being put in place. This includes relay stations for satellite communication. The 2009 contract also contains cost-sharing arrangements which divide up the planned investments of EUR 1.45 billion across 13 procuring nations according to certain percentages. Many Member States withdrew right at the beginning – mostly for financial reasons. Belgium, the Netherlands, Greece, Denmark and Spain are not on board. Canada has now opted out for good. Great Britain and France now want to avail themselves of the option of contributing their own drones rather than money. Apart from Germany, Italy, Luxembourg and Norway, this leaves above all Eastern European countries, including all three Baltic States and Bulgaria, Czech Republic, Romania, Slovakia and Slovenia.

The NATO drones can be controlled from the base in Sigonella. The collection, processing and analysis of reconnaissance data also takes place – as far as is known – in Sicily. This is also where a training unit for pilots and analysts is located. But the use of mobile, transportable ground stations is also possible. These would then be connected to the facility in Sicily by satellites. It is unclear where these mobile units are stationed in peace situations. The Global Hawk’s long range means that data exchange with the analysis and control unit requires broadband data relay satellites, which have to be backed up in the event of breakdown. For security reasons, such units always need to be kept in duplicate. As even this is not enough, additional commercial satellite capacities are also rented, above all for the transmission of reconnaissance data. Following a market study in 2014, in 2015 the plan is to start setting up satellite communication in Sigonella. Until this is completed, NATO could use the facilities which already exist at the US base there.

The Bundeswehr also intends to purchase large drones from Northrop Grumman. There were plans to purchase four “Euro Hawk”drones, but the project failed due to the high add-on costs entailed by approval procedures (Bundestag printed paper 18/3663). A prototype already supplied is now to be used to test the on-board telecommunications interception equipment. The Federal Ministry of Defence now favours the “Triton”drone, also a spin-off of the “Global Hawk,”but a more recent model. The Bundeswehr has commissioned a study on the possible approval of drones and is working on a technical evaluation. The US military has to be involved in purchasing plans of this kind, and it is the Navy there that is in charge in the case of “Triton”. The Bundeswehr has already initiated a planning procedure for this.

It is unclear when the Global Hawks delivered to NATO will be able to take to the skies for normal operation for the first time, it may be that time-consuming separate permits will be required each time. Although the drones have been approved by the US authorities, for them to be integrated into the military airspace over Sigonella, clearance by a military authorisation agency of the Italian ministry of defence is required.

According to the Federal Government there is no reason to believe that the NATO AGS approval process is seriously faltering. Yet, it remains unclear when it will be possible to go ahead with the routine completion of a maiden flight.

A year ago, during an exercise staged in Norway, NATO carried out the first extensive tests with the giant drones (Bundestag printed papers 18/2938, 18/1794). The US Air Force has also already stationed two Global Hawks in Sigonella. The NATO staff in charge of the exercise used both of these drones and had them fly several routes from Sigonella to Norway. The test mission was remotely piloted from a control station at a base in the US. There is no documentation whatsoever as to which satellites or relay stations were used to conduct the flight. It is conceivable that the control signals were transmitted via installations in

Ramstein or Sigonella. The drones flew at an altitude of 16 kilometres and were travelling at speeds of almost 600 km/h. Along the flight paths in the countries flown over, temporary restricted zones were put in place. The US Air Force was in charge of applying for these. Originally, Germany was also meant to be flown over, but the government of Austria, which had also been planned to be part of the flight path, did not issue fly-over permission. Finally, NATO opted for a flight path over France and Great Britain. The Bundeswehr had nonetheless prepared for the flyover and initiated a procedure to this end. The Bundeswehr Technical Centre 61 (Wehrtechnische Dienststelle 61) is the organisation in charge of this which initially carried out an operational and technical analysis. On the basis of this, the Federal Ministry of Defence then issued permission, on the provision however, that all the on-board tapping and reconnaissance equipment be switched off over Germany. The actual flight over Germany would then have been managed by German air traffic control.

Preliminary remarks of the Federal Government:

The Federal Government points out that the answers provided below reflect its knowledge as on 26 June 2015. The on-going implementation progress in the different projects and analysis of the outcomes mean that the information contained in the answers is subject to continuous change.

1. As things currently stand, when are the Global Hawks to leave the supplier and be handed over to NATO?

The NATO AGS aircraft are being handed over in stages in line with the Integrated Master Schedule (IMS).

This forms part of the AGS procurement contract concluded on 20 May 2012. Under the IMS, the delivery of the first aircraft to the client, the NATO AGS Management Agency (NAGSMA), is scheduled to take place 52 months after the conclusion of the contract. The last of the five aircraft is to be handed over to the client 58 months after the conclusion of the contract according to the IMS.

a) What tests and operational procedures have to be carried out after delivery and before routine operation of the drones?

According to the Integrated Master Schedule, after the delivery and handover of the unmanned aircraft and prior to normal flight operations by the user, NATO AGS Force, a two-tier operational test is to take place in accordance with a testing schedule to be developed by the user. Upon successful completion of these tests, the user will declare initial military capability or full operational capability. Standard flight operation then begins with the declaration of full operational capability.

b) Who is in charge of this?

The NATO AGS Force carries out the checks and tests relating to this.

2. As things currently stand, when might it be possible to go ahead with the routine completion of a

maiden flight?

The Italian approval authority believes the maiden flight will be possible in spring 2016 as things currently stand.

- 3. *To what extent has the “ground-breaking ceremony” scheduled to take place in early April 2014 in Sigonella but then postponed (Bundestag printed paper 18/1794) since taken place and who attended?***

The “ground-breaking ceremony” planned to take place in early April 2014 was not carried out and will no longer take place.

- 4. *If this “ground-breaking ceremony” did not take place as announced what reasons is the Federal Government aware of for the delay?***

Scheduling difficulties were responsible for the cancellation.

- 5. *What knowledge does the Federal Government have regarding the schedule for the approval process for the NATO AGS drones?***

In terms of the schedule for the approval process there is currently a delay of several months according to information from the Italian approval authority.

- a. *What knowledge does the Federal Government have regarding the risks related to the approval process, which according to its own statements Italy “views to be manageable” and is why “the issue of certification” is not currently thought to be a “showstopper” (Bundestag printed paper 17/14571)?***

Issues relating to possible delays during the course of the approval procedure are dealt with between the Italian approval authority and industry. According to the Italian approval authority, apart from a delay in terms of time, there are currently no negative impacts in terms of the issuance of the model authorisation.

- b) *What knowledge does the Federal Government have regarding current problems relating to the approval procedure for the NATO AGS drones?***

The Federal Government has no knowledge in relation to this.

- 6. *Which agencies from which countries are on NATO’s RPAS Airspace Integration Integrated Project Team and what are their tasks (Bundestag printed paper 18/5022)?***

The “RPAS Airspace Integration Integrated Project Team” is a NATO body in which operational issues regarding the integration of RPAS of the HALE and MALE classes into air traffic are discussed. In the past, alongside Germany, representatives from the following nations were involved: Belgium, Denmark, France, Italy, the Netherlands, Norway, Great Britain and the United States of America. The Federal Government has no information on which agencies the representatives of these nations belonged to. For Germany, it was mainly Air Force Operational Force Command that performed these tasks.

- 7. *To what extent is the operational procedure developed by the Bundeswehr for the NATO “Unified Vision” manoeuvre for the “situation-related use” of German airspace by the US Global Hawk drones transferrable to the NATO Global Hawks or what adjustments would be required for it to be transferrable from the Federal Government’s point of view?***

The decision on the operational procedures for potential fly-overs in the scope of the “Unified Vision” exercise was an individual decision for this particular case.

Only once detailed information is made available (flight profile, flight path and flight procedure) can it be assessed whether this procedure or parts thereof are transferrable to other

unmanned aircraft.

8. Which companies have been commissioned with the planning, erecting and operation of the air and ground segments (including analysis and communication components) in the scope of NATO AGS (please provide a breakdown for the individual measures)?

Prime contractor: NGISSli (overall responsibility and system integration)

Subcontractors: NGSC² (air segment)

EADS CASSIDIAN³ (mobile ground equipment) SELEX (MOB')

KONGSBERG (data archive)

Northrop Grumman ISS International Inc. Northrop Grumman Systems Corporation

³ EADS CASSIDIAN now Airbus Defence and Space, ADS

⁴ Main Operating Base

9. In what way are the manufacturers of surveillance technology based in the Czech Republic ERA, T-CZ, ELDIS, RAMET and RETIA involved in implementing NATO AGS to the knowledge of the Federal Government?

Under the NATO AGS Core procurement contract, the companies RETIA and ICZ based in the Czech Republic are involved as subcontractors of the company Airbus Defence and Space. The company RETIA has been assigned the work component relating to the

“Mobile Ground Stations Shelter with Design and

Installation/Integration”, the company ICZ the work component relating to “Software Development”.

10. To the knowledge of the Federal Government, to what extent is it correct that the company RETIA is developing mobile ground stations for NATO AGS with the defence corporation Airbus as reported by www.tagesschau.de (5 June 2015), and what specific contributions is the company making here?

Please refer to the answer to question 9.

11. What knowledge does the Federal Government have regarding the findings of a market study scheduled for February 2014 in the context of NATO AGS on “Requirements for satellite communication (leasing, performance period November 2015 to December 2037)” (Bundestag printed paper 17/14571)?

NATO decided not to go ahead with the market study originally planned for satellite communication.

12. What knowledge does the Federal Government have as to what extent satellite communication in Sigonella has started to be set up this year as planned?

Work to put in place the satellite communication system began in January.

13. Where other than in Sicily could the collection, processing and analysis of the reconnaissance data take place to the knowledge of the Federal Government?

The collection, processing and analysis of the reconnaissance data requires a communication component and an analysis component and from a technical perspective is theoretically possible anywhere where there is an according data connection and authorisation to access the system.

a. *How many mobile, transportable ground stations are to be procured as things currently stand?*

As things currently stand, the NATO AGS Core procurement contract provides for six Mobile General Ground Stations (MGGS), two Transportable General Ground Stations (TGGS) and two Deployable UAV Control Elements (DUCE).

b) *Where would these mobile, transportable ground stations be stationed as things currently stand?*

The plan at the present time is to station the mobile, transportable ground stations in Sigonella, Italy.

14. *To the knowledge of the Federal Government, to what extent is it possible or even planned for the data recorded by the NATO AGS Global Hawks to be forwarded to other situation centres or control centres in real time by fibre optic cables after it has been “transferred via data relay satellites and a broadband data connection (line of sight) to the relevant NATO AGS ground stations?”*

The NATO AGS Core System is planned solely for military use inside military communication networks. From a technical perspective data forwarding is theoretically possible.

15. *What technical explanations can the Federal Government provide as to what extent relay stations could or would have to be used for such a procedure?*

Please refer to the answer to question 14.

16. *To what extent would such a procedure not just be conceivable for the analysis of data but also to control the drones “via radio”?*

Controlling unmanned aircraft requires a ground station authorised to conduct and control flights and the according data connection to and access authorisation for the system.

17. *To the knowledge of the Federal Government, to what extent are there plans to also be able to control the NATO drones stationed in Sigonella from bases on other continents?*

The Federal Government has no knowledge of such plans.

18. *What knowledge does the Federal Government have as to what extent facilities of the US Armed Forces in Sigonella could be used to launch, control or analyse data from NATO drones (including only temporarily) or this is actually even planned?*

The Federal Government has no knowledge of this.

19. *To the knowledge of the Federal Government to what extent is it true that some NATO states like the Federal Government are procuring “national contributions” for NATO AGS and what are these as things currently stand?*

To the knowledge of the Federal Government, two nations, Great Britain and France currently intend to make use of the option of a “contribution in kind” (contribution of national systems) in lieu of a financial contribution.

17. *What knowledge does the Federal Government have regarding the latest status of the offer from Great Britain and France to provide a “contribution in kind” in the form of “Sentinel” and “Heron TP” drones in lieu of their financial contribution?*

The Federal Government has no new knowledge regarding the “contribution in kind” by Great Britain and France, apart from the known contribution in lieu of a financial contribution. The “Sentinel” system is not an unmanned aircraft.

21. *How many German soldiers in which posts are currently directly involved in the NATO AGS programme and what are their respective duties?*

Currently a total of eight German soldiers are directly involved in the NATO AGS programme at the locations or organisations SHAPE AGS Implementation Office (AGSIO) in Belgium (five soldiers) and Sigonella in Italy (three soldiers).

Their respective duties entail the following main tasks:

Team leader AGSIO (SHAPE, Belgium):

Leading, coordination, managing and monitoring the AGS support element, tasks related to the operational roll out of the NATO AGS programme.

Head of staff (SHAPE, Belgium):

Drafting of staffing requirements and staffing schedules and guidelines concerning the AGS support element taking into account national and international guidelines.

Head of tactics and doctrine (SHAPE, Belgium):

Developing tactics and doctrine for the AGS support element.

Head of ground issues C2⁵ & CIS⁶ (SHAPE, Belgium):

Coordination and surveillance of all CIS requirements of the NATO AGS Core in consultation with the NATO procurement agency NAGSMA, industrial partners and other stakeholders inside NATO and the NATO command structure.

Office administrator AGSIO (SHAPE, Belgium): Organising the daily running of the office.

DDO DtAY NATO AGS (Sigonella, Italy) /Commander ADVON Team: Command of the NATO AGS Force Advanced Echelon.

Deputy Head of Civil Engineering (Sigonella, Italy):

Consultancy and coordination for all aspects of the NATO AGS infrastructure development at the stationing location (MOB)⁸, Sigonella, Italy.

Administrator (Sigonella, Italy):

Assisting the commander of the NATO AGS Force Advanced Echelon.

⁵ Command & Control

⁶ Communication & Information System

Longest-serving German Office for the German Section ⁸ Main Operating Base

22. *How many German Soldiers are currently qualified and certified as pilots and/or instructors for the Euro Hawk, Global Hawk and Triton drones (please provide a breakdown), and which other soldiers are expected to receive this certification in the future?*

The “Remotely Piloted Aircraft — Pilots” (RPA-F) of the German Air Force who were earmarked for use on the Unmanned Aircraft System (UAS) EURO HAWK - for which certification is required - received system training for the UAS GLOBAL HAWK. None of the German Air Force’s RPA-Fs hold a model authorisation for EURO HAWK.

GLOBAL HAWK:

At the present time, three RPA-F still hold a valid GLOBAL HAWK model authorisation, including one RPA-F who holds an additional flight instruction authorisation. Over the next five years the German Air Force will be deploying up to 16 RPA-Fs in NATO AGS on UAS GLOBAL HAWK and training them accordingly.

TRITON:

No selection has taken place in the SLWÜA project yet. As a result there is no staffing schedule for the MQ4-C TRITON system yet.

23. *What presentations did members of the Federal Government give on the topics of training and further training or licence retention for pilots at the seventh meeting of the “European MALE RPAS Community” user group (Bundestag printed paper 18/5022)?*

On behalf of the Federal Ministry of Defence, a representative of the German Air Force Headquarters attended the 7th meeting of the EDA MALE Remotely Piloted Air System (RPAS) Community working group. Presentations were given on the topic of "Retaining the military aircraft flying licence ‘area with instrument flight authorisation’ (MFS-F/IB) for RPA-Fs in the German Air Force" and on possible approaches to skills retention for crews of unmanned aircraft.

24. *Which drones from which armed services of which countries were deployed in the NATO “Unified Vision” exercise (www.pinterest.com/pin/46936021091988339)?*

The following unmanned aircraft were deployed as part of the NATO “Unified Vision 2014” demonstration:

Belgium: B Hunter

Italy: Strix, Raven, MQ-1 Predator

Norway: Raven, Puma

Romania: Hirus

USA: Global Hawk (Block 30)

a. *Where did the flights take place to the knowledge of the Federal Government?*

To the Federal Government’s knowledge the flights took place primarily on the training grounds of the “Oerland Main Air Station” in Norway, although the Belgian B Hunter was only deployed in Belgium and the Italian MQ-1 Predator only in Italy, however. For the US Global Hawk please refer to the answer in Bundestag printed paper 18/1794.

b. *Where were the drones controlled from in each case to the knowledge of the Federal Government?*

Please refer to the answer in Bundestag printed paper 18/1794.

c. *Which relay stations were used to control the drones or for communication purposes to the knowledge of the Federal Government?*

Please refer to the answer in Bundestag printed paper 18/5061, question 36.

d. *Where was the reconnaissance data from the drones analysed?*

The initial analysis of the reconnaissance findings of the unmanned aircraft was done nationally as a general principle and primarily on the training grounds of the “Oerland Main Air Station” in Norway. Then the findings of the analysis were made available to the demonstration network, which additional national agencies in Europa and the US as well as NATO agencies were linked up to.

25. *What knowledge does the Federal Government have from its involvement in the NATO manoeuvre “Unified Vision” as to why “no flyover authorisation” could be secured “in time” from Austria for the Global Hawk?*

The Federal Government has no information on this.

- 26. *To what extent does the Federal Government view it to be necessary or at least desirable that a “national observer”, who is also a pilot and flight instructor for the Euro Hawk and Global Hawk drones and operator of the surveillance sensors of the drones be informed as to whether a drone he is observing is being controlled via fibre optic cable or satellite (records of the plenary proceedings 18/108)?***

There are no stipulations providing for a dedicated briefing on transmission routes of controlling signals for a pilot or controller of an unmanned aircraft and such a briefing has no bearing on the conduct of the mission.

- 27. *In which technical processes of the flights of the Global Hawk drones from Sigonella to Norway during the NATO “Unified Vision” manoeuvre was the officer sent to an Air Force base in the US actually involved as a “national observer” if at all?***

The officer deployed to the mission control station at the US Air Force Base in Beale who was qualified in operation and surveillance was able to observe the processes relating to the conduct of the mission and the use or activation of the sensors for the missions carried out in the context of the “Unified Vision 2014” exercise from the beginning of engine start-up onwards. He was not involved in any other technical processes for the flights.

- 28. *What incidents did the German national observer seconded to the mission control station Beale Air Force Base (USA) which has sole responsibility for the flights document?***

No incidents were documented by the national observer.

- 29. *What other problems or critical situations are described in the evaluation of the “Unified Vision” exercise?***

The Federal Government has no information on problems or critical situations.

- 30. *Which manned or unmanned aircraft of which armed services from which countries were deployed in the JAWTEX 2014 (Joint Air Warfare Tactical Exercise) described as a “Bundeswehr key exercise”?***

During the JAWTEX 2014 exercise only manned aircraft (AC) from a total of ten nations (Germany (DEU), the Netherlands (NLD), Italy (ITA),

Nation	No. of aircraft (Fixed wing aircraft)	No. of aircraft (helicopters)
DEU	Air Force (AF): 35 (EF, TOR, C-160, A310 MRTT) Civilian: 15 (A-4N, Learjet, PC-9)	AF: 5 (CH-53) Army: 6 (TIGER, NH-90, UH-1D)
NLD	AF: 5 (F-16, C-130)	
ITA	AF: 12 (EF, TOR, AMX)	
TUR	AF: 5 (F-16, C-130)	
HUN	AF: 5 (GRIPEN)	
GRC	AF: 4 (F-16)	
SVN	AF: 3 (PC-9M)	AF: 1 (COUGAR)
CHE		AF: 3 (COUGAR)
FIN	AF: 3 (F-18)	
AUT		AF: 2 (UH-60)
NATO	AF: 1 (E-3A AWACS)	
Total	88 AC	17 AC

Turkey (TUR), Hungary (HUN), Greece (GRC), Slovenia (SVN), Switzerland (CHE), Finland (FIN), Austria (AUT) and NATO were deployed. A total of 105 aircraft took part in the JAWTEX 2014 exercise. Broken down into nations and armed services, this gives rise to the list below:

a. Which flyovers or other flights by drones over Germany were planned as part of the exercise and which actually took place?

The deployment of unmanned aircraft during the exercise was neither planned nor did it take place.

b. At what altitude and at what speeds did the drones fly?

Please refer to the answer to question 30 a).

c. From where were the drones controlled in each case to the knowledge of the Federal Government?

Please refer to the answer to question 30 a).

d. Which relay stations were used to the knowledge of the Federal Government to control the drones or for communication purposes?

Please refer to the answer to question 30 a).

e. Where was the reconnaissance data from the drones analysed?

Please refer to the answer to question 30 a).

31. Which “functionally responsible departments at the Federal Ministry of Defence” are currently involved in the decision on the next steps and possible continued use of the “Euro Hawk Full Scale Demonstrator”?

At the Federal Ministry of Defence, depending on their respective functional responsibility, the Directorate-Generals for Equipment, Information Technology and In-Service Support (AIN), Planning (Plg), Forces Policy (FüSK), Strategy and Operations (SE) and Budget and

Controlling (HC) are involved in the decision on the next steps and the possible continued use of the "Euro Hawk Full Scale Demonstrator".

- a. To what extent has the "agreement to end the contractual relationship to date" with the contractors of the "Euro Hawk Full Scale Demonstrator" since come into being (Bundestag printed paper 18/2729), which the Federal Government indicated would take place at the "end of March 2015" at the earliest?*

The agreement has not yet come into being. At the end of May 2015, amended offers were presented by industry, which the Federal Office of Bundeswehr Equipment, Information Technology and In-Service Support (BAAINBw) is currently conducting negotiations on.

- b. If a final agreement has not yet been secured to end the contract, what reasons can the Federal Government cite for this?*

On account of the changed offers only being submitted in late May 2015 and the negotiations to be conducted on these, it has not yet been possible to come to an agreement.

32. What was the upshot of the review planned by the end of March 2015 of the "technical condition" of the "Euro Hawk" drone, which has been decommissioned since December 2013 (Bundestag printed paper 18/3663)?

The current technical condition of the EURO HAWK FSD aircraft, which has been decommissioned since December 2013, was evaluated from mid January to the end of April 2015.

The examination found that the aircraft is in good condition and can be returned to an airworthy state.

- a. What is the status of the "work in preparation" of further Euro Hawk flights and when might these flights take place as things currently stand?*

On the basis of the findings of the review of the technical condition of the EURO HAWK FSD, the resumption of test flights is being prepared for summer 2016.

- b. What work required to acquire new provisional flight certification was identified as "economically worthwhile" and is consequently being carried out?*

In the scope of the review conducted, measures were identified which would be required to be worked through prior to reissuance of provisional flight certification. The offer submitted by industry, which *inter alia* contains the measures required for reissuance of provisional flight certification is currently being examined and assessed by the appropriate officials.

33. What information can the Federal Government provide regarding adherence to the schedule for issuing a statement on the approvability of the MQ-4C Triton drone which was planned for the third quarter of 2015 (Bundestag printed paper 18/3663)?

A statement on the approvability of TRITON will be available in February 2016 at the earliest.

- a. In what way is the US Navy involved in the work on such an approvability study?*

In a government contract (FMS Case), the US Navy is the named executing or coordinating contracting partner, who provides the German side with technical information and supports analysis of the information by the German side.

- b) What information does the government contract concluded with the US Navy in 2014 contain regarding an examination of the approvability of drones (Written Question no. 5/103 submitted by Member of the Bundestag Andrej Hunko on 19 May 2015, Answer of 9 June 2015)?*

A government contract (FMS Case) was concluded in April 2015 with the US NAVY following

preparatory work in 2014 to examine whether the MQ-4C TRITON can be authorised in Germany.

Initial expert talks took place in June 2015. Results on the approvability of TRITON are not yet available.

c) To what extent are the US authorities and the manufacturer of the MQ-4C Triton drones demonstrating a willingness to cooperate in terms of providing all the documents and technical data required to verify whether military flight certification is possible?

The competent approval agency of the US NAVY is working cooperatively with the German agencies involved. To date all the documents requested of relevance for authorisation have been provided.