

NORTHUMBERLAND (GREEN RIGG / RAY / STEADINGS) WINDFARMS PUBLIC INQUIRY**Questions Arising From The Visit To The Electronic Warfare and Tactics Range****RAF Spadeadam on 24 April 2008**

Ser.	Question	Response
1	For the Skyguard equipment;	
a	How is the camera system linked to the monopulse radar tracker? E.g. are they slave to each other? Is the optical used to set the tracker or vice versa?	Certain technical information relating to the specified equipment is available from open sources, such as Jane's and the web. The MOD says nothing as to the accuracy or otherwise of this open source information. For reasons of military intelligence the MOD declines to disclose what it considers to be the specifications of the equipment in question.
b	How does the operator know he has lock-on?	See question 1a above
c	How does the operator know what has been locked on to?	See question 1a above
d	How does the system reacquire lock after it has been lost?	See question 1a above
e	Does the optical tracker have a laser range finder associated with it?	No
f	What, if any, decoy resistance does the equipment have?	See question 1a above
2	How long is lock-on required to fulfil the tactical mission or the training requirement?	See question 1a above
3	How is the success/failure of a mission assessed when debriefing pilots?	Success/failure is defined by the user once he has reviewed available data from the mission on the ground.
4	There is a crossbar on the threat co-ordination system display which shows radial vectors originating from the threat radar systems. What are they?	See question 1a above
5	Is there training for defence from the ground as well as attack from the air?	Operators are briefed and trained to operate their equipment in accordance with known tactical principles that include defensive measures.
6	Is forward air controller training carried out at Spadeadam?	Yes.
7	Can a description be provided of what was seen during the visit on the Range Controller's radar and the ATC radar?	The Range Controller's display is not a radar display and shows just the Range traffic. From 11:00 to 11:30 the ATC display was set to show Deadwater Fell Primary and Secondary radar data. From 11:30 to 14:30 the ATC display was set to show Berry Hill Primary and Greymare Secondary radar data.
8	Is the information the Range Controller sees on his screen exactly what the threat system operator sees on his?	No.
9	In relation to the track history on the ATC screen seen during the visit:	
a.	Why was there a lot of track history on the ATC screen seen during the visit?	The track history was set to permanent trails i.e. any return displayed on the console remains until the display is reset.
b.	Is that the usual situation for the displays at RAF Spadeadam?	No – the ATC consoles are usually set to show 30 seconds of history but can be changed by the operator
c.	Was there a pre-determined time-period for the track history display? If so, what was it?	No – see answer to 9a

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10	What were the proportions of planned and opportunistic flights seen during the visit?	On the day of the site visit the following activity took place at RAF Spadeadam: (1) Operation Joint Warrior (planned exercise): 1 hr in am and 1 hr in pm; (2) DA 20 pre-booked mission: 1 hr in am and 1 hr in pm; (3) Tornado training 30 mins (short-term booking); (4) Tornado training 20 mins (short-term booking); (5) Army training 30 mins (short-term booking). It must be remembered that every day is different and there is no obvious pattern between the types of usage you mention. Some days it may all be "pre planned", at other times it may be wholly opportunistic.
11	Were the threat system operators told the direction from which aircraft would be approaching?	Yes.
12	If so, is that standard practice?	Yes – but dependent on the tactical situation prevailing at the time.
13	The threats seen during the visit appeared to be at short range. Were the sorties during the visit representative or does training at longer range also take place?	Training was taking place at longer ranges.
14	Are the away points mentioned during the PowerPoint briefing fixed, or are they related to a specific task?	The more northern sites are used to maximise range airtime. The eastern sites, such as Otterburn, Charterhall and Albermarle, are used for bigger exercises The dispersal of sites allows for two groups of aircraft to be trained at the same time.
15	All of the approaches seen during the visit were from the east. Is this typical?	Not all of the approaches were from the east during the time both groups were in the Ops Room. Aircraft can approach from any direction commensurate with the needs of Flight Safety. However, approaches from the east do form a significant proportion of events/sorties. Ultimately, the pilot retains Mission Command to choose routing according to the specific requirements of each sortie.
16	Weather related clutter was seen on the screens during the morning. How is such clutter dealt with?	Routinely controllers will assess the situation and issue a warning about the possible weather breakthrough and offer the pilot a re-route or limited service. The controller can determine which Watchman radar gives best picture for the task and select that radar.
17	In the morning it appeared that primary and secondary radar were both being provided from Berry Hill but in the afternoon primary radar came from Berry Hill and secondary radar from Deadwater Fell. Is mixing the sources of primary and secondary radar common?	Yes – dependent on availability of radars due to essential maintenance unserviceability etc. Controllers are free to mix and match to get the best coverage.

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18	Who controls the radars during night flying?	<p>If the Range is open to night flying then we operate as we would do during the day. The Danger Area is activated for a stated time period, we provide an Air Traffic Service and we man and operate the threat radars as normal. After a normal day of flying, we close, the Danger Area is de-activated and we do not provide an ATC. Military aircraft are then free to transit the area as it reverts to a Low Flying Area whose usage is organised under the arrangements for military low flying. Civilian flying can proceed without avoiding what is now effectively a "danger free" zone although the extant airspace control measures in the immediate vicinity still apply.</p>