

# Durham Tees Valley Air Traffic Control & Fishburn Aero Club ATCO – Pilot Forum



Durham Tees Valley Air Traffic Control  
&  
Fishburn Aero Club  
ATCO – Pilot Forum

*Tuesday 18<sup>th</sup> June 2013*  
*at Fishburn Airfield*

Durham Tees Valley Air Traffic Control  
&  
Fishburn Aero Club

*An informal*

*ATCO – Pilot Forum*

*Tuesday 18<sup>th</sup> June 2013*

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Durham Tees Valley Air Traffic Control  
&  
Fishburn Aero Club

*Presented by*

*Graeme Bennie (ATCO)*

*Roger Braney (ATCO)*

*& Others*

# Durham Tees Valley Air Traffic Control & Fishburn Aero Club ATCO – Pilot Forum

- Firstly, can I welcome you all to Fishburn Airfield. For some of you this will be your first visit, but for most of you here will be familiar with the facilities.
- I would like to thank Beryl & everyone here at Fishburn Airfield for allowing us to host the event here.
- Also, thanks to Fishburn Aero Club & in particular, Tom Briton Hon Sec FAC for arranging the event.
- And thank you all for taking the time to come this evening.

# Introduction

- A brief introduction explaining who we are and what we do;
- Local flying;
- Radio communication;
- At the end of the evening we will have time to try and answer any questions that you may have.

# *Who are we?*

- **Graeme** has been through the NATS (National Air Traffic Control Services) cadet scheme and has worked at London Heathrow, Birmingham, West Freugh and at Durham for a number of years. He is a qualified sailplane instructor and has a ppl and flies regularly in the local area.
- I myself have been at Durham for over 25 years starting as an assistant becoming an ATCO before working at Newcastle and then returning to Durham last year. I have been a paragliding instructor & safety officer of the British paragliding Championships. I have flown from Fishburn in G-BZAP (Jabaru) with Steve Derwin a few times.

# *What do we do?*

- Durham Tees Valley Air Traffic Control Unit provides Air Traffic Control Services to aircraft taking-off and landing at Durham Tees Valley Airport and as far as possible aircraft flying in the local area which request a service.
- Air Traffic Control is sub-divided into aircraft that are flying in the vicinity of the airfield, which are usually looked after by the **Tower** (Aerodrome Control) and everything else by **Approach**, with or without the use of radar.



# *How do we do it? - Aerodrome*

- Aerodrome Control provides services to aircraft flying with visual reference to the surface in, and in the vicinity of, the Aerodrome Traffic Zone (*ATZ- Airspace of defined dimensions established around an aerodrome for the protection of aerodrome traffic*) and operating on the manoeuvring area.
- This is mainly achieved by looking out of the window and passing information to pilots to enable them to plan their flight paths accordingly.
- But could also include instructions to an aircraft to hold position, orbit, routing instructions or a maximum level to fly.

# *How do we do it? - Approach*

- Approach Control provides services to:-
  - a) arriving aircraft released by Area Control until control is transferred to aerodrome Control;
  - b) aircraft approaching from outside controlled airspace until control is transferred to Aerodrome Control;
  - c) departing aircraft until:
    - i. they are transferred to Area control; or
    - ii. they are clear of controlled airspace.
  - d) over-flying aircraft wishing to transit controlled airspace;

# *How do we do it? - Approach*

- Approach Control provides services to aircraft:-
  - e) Approach Control may also, (*subject to availability*) provide services to aircraft outside of controlled airspace which request a service.

This may depend on the availability of staff, the serviceability of equipment and specific, local unit instructions.

The type of service available will be discussed later.

# *How do we do it? - Radar*

- Approach Control may provide a services with or without the use of radar.
- At Durham Tees Valley Airport we have two systems. The Primary radar system is based on the airfield and a feed from a secondary system located at Great Dun Fell, near Appleby.
- Other Units may use Primary only, or Secondary only and area units may have many radar feeds for better coverage and reliability.
- Some units are now being equipped with Mode S-type radar, eg. Newcastle.

# *How do we do it? - Radar*

Primary Radar System.  
Located on the airfield.  
Plessey Watchman Radar  
owned and maintained by  
airport telecommunication  
engineers.



# *How do we do it? - Radar*

Secondary Radar System.  
Located on Great Dun Fell,  
near Appleby, owned and  
maintained by NATS  
engineers.



# How do we do it? - Radar

- Primary Radar Showing un-processed (raw) Radar.







18:10.59 21 Jan 2011 (ID:01)  
 Map 1: CENTRED 40NM  
 Trails: 5d/45s      Vectors: OFF  
 Range: 40.0nm      Rings: 10nm  
 Primary Ch: 1 Radar 1  
 SSR Ch: 1 Great Dun Fell  
**QNH: 1040**    TL055 16:20  
                  28.1nm 360/180  
                  54 58.67 N 001 28.09 W

DF **SSR** CCS U/C O/R

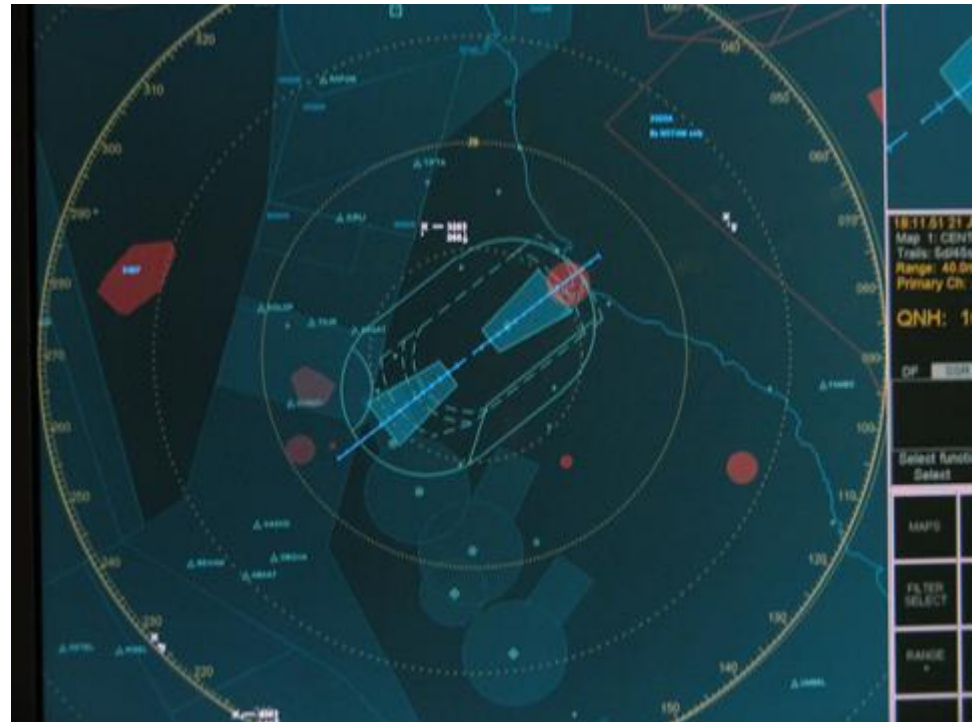
Select target  
 Select

MAPS	QNH ENTRY	CODE CALLSIGN	PA SE
FILTER SELECT	FILTER SETUP	LABELS	CI SE
RANGE +	RANGE -	CURSOR CONTROL	TR VEC
	DEFAULT	ALARM ACK	E



# *How do we do it? - Radar*

- Secondary Radar





18:11:51 21 J  
 Map 1: CENT  
 Trails: 5d/45s  
 Range: 40.0n  
 Primary Ch:

**QNH: 1**

DF  SSR

Select function  
 Select

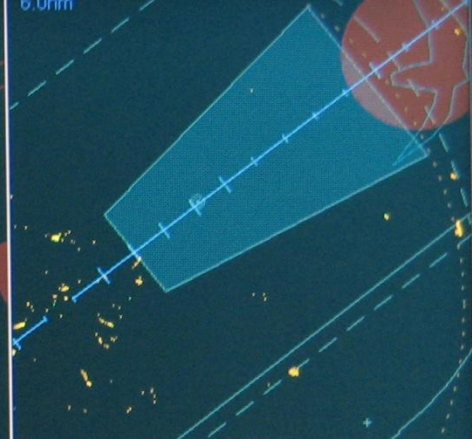
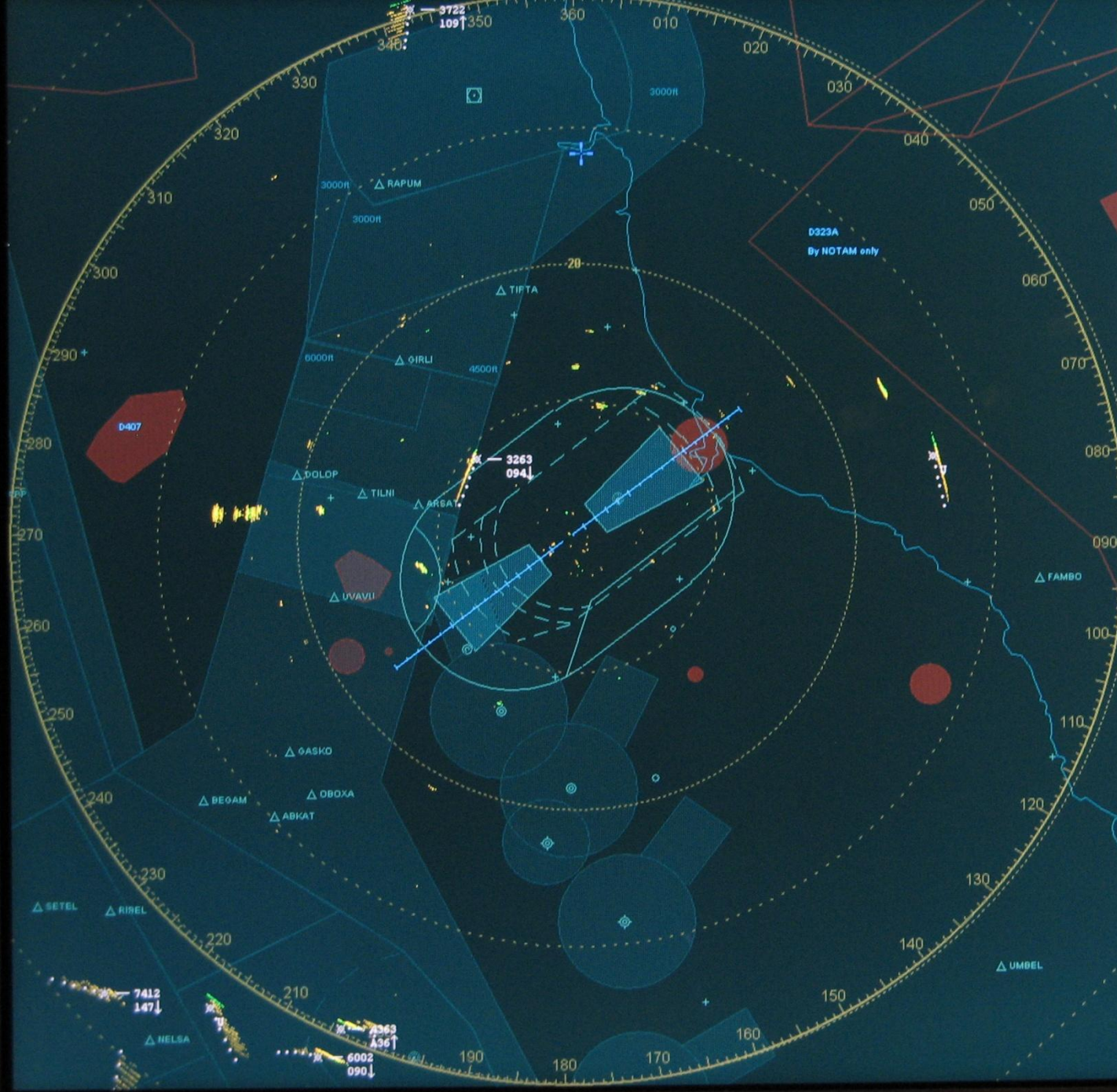
MAPS	
FILTER SELECT	
RANGE	



# *How do we do it? - Radar*

- Primary & Secondary Radar Combined.





18:10.27 21 Jan 2011 (ID:01)  
 Map 1: CENTRED 40NM  
 Trails: 5d/45s      Vectors: OFF  
 Range: 40.0nm      Rings: 10nm  
 Primary Ch: 1 Radar 1  
 SSR Ch: 1 Great Dun Fell  
**QNH: 1040**      TL055 16:20  
                          28.1nm 360/180  
                          54 58.67 N 001 28.09 W

DF   **SSR**   CCS   U/C   O'RIDE

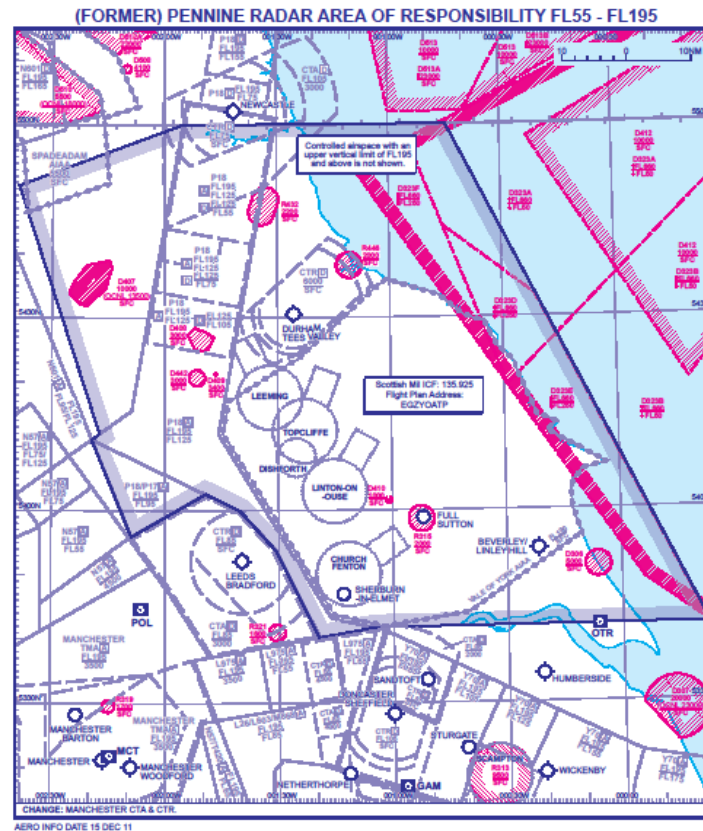
Select target  
 Select

MAPS	QNH ENTRY	CODE CALLSIGN	PAGE SELECT
FILTER SELECT	FILTER SETUP	LABELS	CHAN SELECT
RANGE +	RANGE -	CURSOR CONTROL	TRAILS VECTORS
	DEFAULT	ALARM ACK	ENG



# Airspace

The airspace around Durham Tees Valley Airport. The map depicts the controlled airspace around Durham Tees Valley Airport, showing the airways structure and the Military airfields in the Vale of York. Also shown is the airway P18 running from the south-west and joining the controlled airspace around Newcastle airport. Danger areas & Military Training Areas are also shown.



# Local Flying

- *Listen out on 118.85mHz, you will be able to decide how busy we are, which runway is in use, etc.*
- *Anticipate what is likely to be said. e.g. “Aircraft call sign, Basic Service, Tyne 1012, Squawk 7034”, etc*
- *If you want to transit controlled airspace, give the Radar Controller enough time to devise a plan. He / she may have to co-ordinate with the Tower controller if your intended route passes close to the airfield. Above 2500ft generally no need to advise the Tower.*
- *You may be transferred to the Tower on 119.8mHz if traffic to affect you, e.g. circuit aircraft.*

# *Local Flying*

- You may be asked to route to the east or west of the airfield to avoid the climb out;*
- You may be given a clearance limit of 3Nm North or South of the field. This could be to protect landing aircraft in the event of a go-around or departing aircraft.*
- An “A” call sign indicates a priority aircraft which might require a direct routing, keep a good look out, e.g. HLE 63A inbound to the James Cook Hospital in Middlesbrough, or UKP 06A. These helicopter flights can get airborne very quickly at very short notice.*

# *Local Flying*

- *Examples of phraseology can be found in CAP 413 Radiotelephony Supplement 3 available on-line:*
- *A Reference Guide to UK Radiotelephony Phraseology for General Aviation Pilots*
- *A supplement to CAA Radiotelephony Guide CAP 413, aimed at General Aviation Pilots, in the form of an interactive quick reference to the UK phraseology most commonly used in General Aviation operations. The supplement covers arriving at and departing from aerodromes, cross country flight, operating at unattended aerodromes, instrument approaches and emergency messages.*



# Local Flying

- *A typical exchange might be “Durham Radar, G-ROGR, a Para GT6, Fishburn, local flight not above 2000ft, requesting Basic Service”*
- *“G-ROGR, Durham RADAR, Squawk 7032, BASIC service, Tyne 1011”*
- *G-GR, Squawk 7032, Basic service, Tyne 1011”*
- *“G-GR, Peterlee and Fishburn active”*
- *“G-GR, Roger”*
- *“G-GR, squawk 7000, free-call Fishburn Radio, 118.275”*

# Local Flying

- *A Guide to VFR flying into and around Durham Tees Valley Airport produced by Graeme containing information about the airfield and surrounding area is available from Graeme by sending him an email to [gbennie@dtva.co.uk](mailto:gbennie@dtva.co.uk) & he will send you pdf version. We have a few copies here if anyone would like one.*
- *For any other information, please give us a call (01325) 331020 or email either myself, [rbraney@dtva.co.uk](mailto:rbraney@dtva.co.uk) or Graeme, [gbennie@dtva.co.uk](mailto:gbennie@dtva.co.uk) and we'll try and help.*

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10 minute break  
then some Q & A's

# Questions for DTVA/Fishburn Forum on 18 June 13

1 *Alan Gibson*

“How can I help you help me?”

- *Any special event, Fly-in, Bar-B-Que, let us know, by phone or email;*
- *Be brief on first call, aircraft call sign, type, from & to, level;*
- *If you have already been given a Squawk from another agency, no need to pass all your details, if we need to check something we'll ask;*
- *Call before entering controlled airspace, Fishburn to Sedgefield racecourse VRP is only 2.46Nm, not a lot of time to devise a cunning plan and co-ordinate with the Tower controller if passing close to the airfield.*
- *You will probably be offered a “Basic Service”, passed the TYNE regional pressure setting, possibly a squawk and warned if the Peterlee parachute centre is active.*

# Questions for DTVA/Fishburn Forum on 18 June 13

2 *Peter Bates –*

“Given that DVTA is seen to be under-utilised these days, does the airport have a strategy to maintain the level of services, including ATC that it currently offers?”

The services provided by ATC like any other service provided by the airport are constantly reviewed. As the majority of the airport is now owned by a private company, with the local councils retaining a minority stake the budgets for each department are carefully considered. Air Traffic Control is a relatively small if significant part of the company, but the cost is quite high with salaries and the cost of equipment. The services provided have been reduced as we now no longer work night shifts on a regular basis. In May we handled 541 Basic Service transit aircraft, 141 Traffic Service transit aircraft and 15 Deconfliction Service transit aircraft as well as the scheduled and flight-planned aircraft in and out of DTVA.

# Questions for DTVA/Fishburn Forum on 18 June 13

2 Peter Bates –

“Given that DVTA is seen to be under-utilised these days, does the airport have a strategy to maintain the level of services, including ATC that it currently offers?”

*These days, the hours that a controller can work and the shift patterns are regulated. The number of controllers required to man any unit for a given period of time can be calculated. Occasionally, there may be times when a first call to “Durham Approach” is not immediately replied to or “Stand-by” is heard. This is usually when the controller is handing over the position to another controller, or when the controller is on the phone or the intercom with the Tower controller. At times when a service is not available for any period a NOTAM will be promulgated.*

# Questions for DTVA/Fishburn Forum on 18 June 13

3 Brent Richardson

“As a microlight pilot I transit through the zone to other GA airfields and try to be as clear as I can regarding my intentions and I am grateful for the service provided which approves my transit in your controlled airspace. However, I operate in the most frugal part of the GA spectrum so would never contemplate landing at DTVA because the charges are too high and wonder, because there are also lots of GA pilots like me, whether the loss of my kind of business matters to you or Peel Aviation and if it influences your views?”

*In a recent survey in the June edition of General Aviation shows that Durham Tees Valley Airport had the 20<sup>th</sup> lowest airport charges for GA out of 48 airports where data was available. See following table.*



# Regional Airport Charges

## Regional airport charges

ADP member James Chan has updated the table of charges at regional airports he compiled for the first time last year. He points out that compared to last year, some fees have risen in line with inflation, and some have been frozen. Bristol now allows self-handling by GA up to 2.75 tonnes via the flying club. Further airport fee discounts are available. The Isle of Man now permits self-handling by GA via airport security. Some ground handling charges have decreased significantly, while a few have increased charges above inflation. Prestwick has doubled landing and navigation fees from £0 + £10 to £20 + £20.

Airport	Airport charge	24hr parking	Minimum FBO fee	Total (inc VAT)	Remarks
Alderney	11.88	11.7 *	0	11.88	
Guernsey	11.8	11.7 *	0	11.8	
Jersey	8	10 *	10 (Aero Club)	18	
Coventry	11.95	5.67	0 (Aero Club)	20.44	
Humberstone	18.09	0	0	21.71	
Dunfermline	12.29	6	0	21.94	
Isle of Man	15.11	3.75	0	22.62	
HNL **	17.53	2.55	0	24.1	
Manston	15	5.8	0 (Aero Club)	24.95	
Diary City	12.45	8.74	0	25.43	
Blackpool	18.4	5.2	0	25.95	
Shoreham	19.17	6.04	0	30.25	
Gloucester	14.83	10.5	0	30.39	Subtract £4.80 if VFR
Howarden	16	10	0	31.2	
Newquay	25	2	0	32.4	
St. Mary's	19.2	8.4	0	32.12	
Carlisle	18	10	0	33.60	
Biggin Hill	21.1	9.35	0	35.54	
Cambridge	20.83	10	0 (Aero Club)	37 ****	
Durham Tees	17.5	5	10 (Western)	39	
Edfort	19.5	16	0	39	
Exeter	23.4	10.22	0	40.34	
Nottingham	19.5	6.25	9.25 (Saxon Air)	42.12	
Cardiff	20.5	16.8	0 (Aero Club)	44.76	
Southend	24	15	0	46.8	
Prestwick	40	13 *	0 (Flight Centre)	48	
Leeds	34.5	8	0	51	Subtract £21.6 if VFR
Leeds Bradford	13.54	3.64	30 (MultiFlight)	56.61	
Birmingham	13.42	5.6	29 (Blue City)	57.62	
Cranfield	31	20	0	61.2	Subtract £18 if VFR
Bournemouth	20.86	15	13.14 (Airport)	62.4	
Liverpool	22.80	5.5	29.35 (Shewan)	68.10	
Bristol Intl	47.45	16	0 (Aero Club)	76.14 ****	
Doncaster	20	6	40 (Samson)	79.2	Club won't handle visitors
Don Sheff	14	1.8	55 (Western)	84.96	Club won't handle visitors
Belfast Intl	29.25	15.84	30 (EAC)	90.1	
East Mid	52	5.94	50 (Signature)	106.4	Club won't handle visitors
Belfast City	28	6.7	100 (Emerald)	161.64	
Southampton	20.79	6.85	128 ****	186.73	
Glasgow	50	5.95	105 (Signature)	193.14	Club won't handle visitors
Aberdeen	48.92	5.76	140 (Signature)	232.62	Club won't handle visitors
Manchester	35.42	10.5	150 (Premier)	248.4	
Edinburgh	44.08	6.14	150 (Signature)	296.57	Club won't handle visitors
Farnborough	370.83	16	Included	464.2	
Stansted	256.43	119.9 *	120 (Inflight)	495.6	
Luton	251.28	29.02	150 (RSS)	572.4	
Gatwick	500	554	215 (Signature)	1584	

Healthcare and London City Single Engine/Personal Transport/Recreational use NOT PERMITTED  
 \* Parking charge is not applied on first night of parking. \*\* HNL = Highlands and Islands Airports. Includes: Barra, Bebecoals, Campobello, Gilly, Inverness, Kirkwall, Stromness, Sumburgh, Tave and Wick. \*\*\* Southampton handling fee is reduced to £25.82 if you depart to Japan the same day. \*\*\*\* Significant airport discounts available if you become a member of the local aero club.  
**Member explanations:**  
**Airport charges:** This includes all charges levied by the aerodrome from inbound approach to outbound departure for a two-seater SEP aircraft (MTO 75kg) operated non-commercially during standard, non-peak operating hours.  
**Includes:** Any landing fees, instrument approach fees, navigation fees, runway movement and departure fees levied for visiting (non-landed) aircraft.  
**Excludes:** VAT, parking, discounts, training rates, package deals, customs/immigration charges, rebates or any other promotional offers.  
**24hr parking charge:** Parking Charge is for up to 24hrs after any initial free period of parking (typically 2 hours at most airports).  
**Excludes:** VAT.  
**Minimum FBO fee:** FBO fee obtained by contacting several based handling agents and flying schools on-site and noting the cheapest offer. £=No charge or self-handling. Excludes VAT.  
**Total:** Total to land, park for a night and take off the following day within a 24hr period. Includes VAT where applicable.

The table is taken from General Aviation, (June 2013), where Durham Tees Valley Airport is 20<sup>th</sup> out of nearly 50 airports where the data was available. The cheapest was Alderney £11.88 and the most expensive was Gatwick £1,584, [DTVA = £39.00] Whilst not trying to defend the cost of landing at Durham Tees Valley Airport, the charges are set by a separate company and ATC have no direct influence over the cost.

# Questions for DTVA/Fishburn Forum on 18 June 13

4 Ed Strong

“How essential is it to continue having large control zones (CTA/CTR) down the eastern side of northern England when, for the moment, there are still military units able to provide the same services outside of the controlled airspace?”

*Many of the regional airfields / units in the North of England receive an annual payment for providing a LARS (Lower Airspace Radar Service) to aircraft, for example, Newcastle, Durham Tees Valley and Humberside. Military units such as RAF Leeming, RAF Linton and RAF Waddington also provide a LARS, but they may not be available on a weekend or a Bank Holiday due to other operational commitments. Most recently, Doncaster (formally RAF Finningly) applied for and was afforded a large block of controlled airspace based on projected passenger figures of 2 million per year.(!)*

# Questions for DTVA/Fishburn Forum on 18 June 13

4 Ed Strong

“How essential is it to continue having large control zones (CTA/CTR) down the eastern side of northern England when, for the moment, there are still military units able to provide the same services outside of the controlled airspace?”

*continued;*

*For the civilian units outside of controlled airspace, it is sometimes better to provide a LARS to aircraft wishing to fly close to the airfield as this provides a more known traffic environment. This reduces the need to have to extend the routing of aircraft in and out of the airfield to avoid aircraft whose intentions are unknown. The establishment of a CTA / CTZ (controlled airspace) around an airport also provides a form of protection for airliners and passengers as well as training aircraft.*



# Questions for DTVA/Fishburn Forum on 18 June 13

5 Tom Briton

“At the recent regional airspace users working safety group meeting held at RAF Leeming some consideration and discussion was given to radio communications and it seemed that from the mixture of military representatives there that they had an unclear idea of the kind of radios used in GA aircraft and micro-lights. There also seemed to be a misunderstanding of the radios use by the gliding fraternity and their use being limited to dedicated frequencies for which no operators licences are required. The consensus from the controllers at that meeting encouraged all pilots to communicate whether they had an operators licence or not, so how tolerant will controllers be when it becomes evident that the radio caller has no experience and may not be confident?”

*A very good question.*

*If I can answer it by providing some background information.*

# Questions for DTVA/Fishburn Forum on 18 June 13

*5 continued.*

*The level of GA / light aircraft experience in Air traffic Control even during my time working at the airport has reduced dramatically. When I started many of the controllers were ex-military with many years of experience as pilots, navigators and also controllers. They had many hours of flying experience and had seen and dealt with more emergencies than I'll ever see. A lot of these controllers are now retired and their experience has been lost.*

*As part of the CAA's controller training scheme, cadets received funding towards a full PPL, later reduced in the early 80's to 20 hours and only 15 hours in the late 80's. Today cadets receive no funding. Some controllers have maintained their ratings and continue flying to this day.*

*Familiarisation or 'fam' flights although encouraged are more difficult to arrange post 9-11 due to security aspects and company policy.*

# Questions for DTVA/Fishburn Forum on 18 June 13

*5 continued.*

*Taking my own unit as an example, when I started working at the airport about 60 – 70% of the people in Air Traffic Control either had a PPL and flew regularly as a member of a flying group based at the airfield or were glider pilots, ex-navigators, etc. Today, only Graeme still has a PPL and flies regularly. I have flown from Fishburn a few times in G-BZAP with Steve Derwin when he was based here.*

*Some at the unit have never even been in a light aircraft.*

*This situation will only get worse as the price of fuel and training increases and the amount of disposable income decreases.*

*Hopefully, more events such as this will give controllers the chance to meet and talk to GA pilots and discuss any issues.*

# Questions for DTVA/Fishburn Forum on 18 June 13

6 Alan Nixon

“With all of the transitional arrangements in place regarding the change over to EASA licences, regulations, medical certificates, annex 2 aircraft etc it is rather unclear whether anyone currently enjoying a radio operator licence will continue to legally hold one without also having proof and evidence that they are a level 6 English speaker, Are you able to shine some light on this because your world is going to become very quiet soon?”

*No ! I suspect that the UK will sort something out to allow the existing GA light aircraft users to continue albeit under a different name for the Radio Operator's Licence to bring us in line with the European regulations.*



# Questions for DTVA/Fishburn Forum on 18 June 13

7 Eric Bentley

“ There is much emphasis these days on transponders and the move to mode S although it appears that few ATCC units yet have the capability to interrogate them, what is your take on the short to medium term future developments in this area of communication?”

*Mode S is being installed at some ATC units, Newcastle for example has a new Multi-lat system with Mode S radar on test and the radar at Great Dun Fell was recently upgraded. At Durham Tees Valley whilst the radar displays are capable of displaying Mode S derived information, as yet we only get Mode A and Mode C data.*

*Short-term, no change for us, medium-term, who knows. The cost involved for any unit to update to Mode S is considerable, but then the cost later to change could also be very expensive. For any business, there must be benefits to justify the initial costs involved.*

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Graeme & I hope to organise another evening later in the year if anyone is interested.

Thank you all for your time this evening.

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- Any Questions ?