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Flying a Standard Arrival Route

A Standard Arrival Route (STAR) is the method that Air Traffic Control uses to place all the arriving aircraft in a safe place ready for landing. The STAR is much like the SID in as much that they are unique routes to the airport, more correctly into the holding pattern. As with the SID we will be using London Gatwick as the example. In terms of training LGW is slightly simpler than some airports because it only has one holding point, in comparison to say London Heathrow which has 4.

Although we do not file a STAR on the flight plan, when flying online you will be expected to be capable of following a STAR. The reason being that, if you decided to (when online) perform a straight in approach, then although your simulated flight may well not have a problem you will cause all sorts of panic for the SATUK controllers, and indeed the other pilots. Unfortunately this lack of understanding for the procedure could result in a 30 day suspension from SATCO or expulsion. As you can see consideration for the others using the system is important.

When flying online we use the STAR to give an aircraft a specific flight lane to place it into the holding pattern for a given runway. By following these flight lanes the aircraft should always be out of the way of others as they are travelling in the same direction and at the same speed. For those of us that do fly online and understand following STAR's, it can't hurt to brush up our skills, for those who don't, then it is really essential that you practice and submit yourself for evaluation.

After all no one likes looking foolish, especially with their aircraft nose buried in the runway when avoiding another aircraft.

Completion of this training will enable a much greater understanding of this type of procedure and also will enable a much more realistic experience of online flying. Whilst considering this course keep an eye out for any Flyin's that have been organized, they are an opportunity to fly online with your Eurostar colleagues, quite often under a more tolerant ATC as they are expecting new comers to the world of online flight.

General notes on the WILLO north STAR's

Before arriving within the airspace of your destination you should have contacted the air traffic controller and been cleared to start your initial descent. On arriving in to the airport airspace you will then be issued with the appropriate STAR to follow. Each different STAR does in fact have its own descent rules, this information can be gained from the STAR chart. For instance the STAR WLO1F requires that you are at FL140 before arriving at the KENET intersection, or WLO2B you must be at FL200 by MID D70.

Holding Speeds, when in the holding pattern at LGW you will be required to hold and maintain 220 knots (KTS). After arriving in the traffic pattern your altitude will be defined by ATC. For instance within the holding pattern at MAY you could be positioned anywhere from 3000 to 6000 feet.

The next section contains a description of two of the approach STAR's, altitude has been omitted from the description as that will be directed by the Approach Controller.

[CHART AVAILABLE HERE](#)

STAR WILLO (North) WLO1G (VIA UW550)

Having been cleared by ATC to descend to the altitude required for the pattern.

You should be heading towards the Brookmans Park VOR.

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- 1) Dial in BPK VOR (117.5) to the NAV 1 radio and ident.
- 2) Dial in the MID VOR to NAV 2 and Ident
- 3) Fly direct to the VOR, when crossing the VOR set the OBS to 224.
- 4) Follow the 224 radial from BPK to GODAL intersection. (BPK d37)
- 5) Dial in the MID VOR (114.0) to NAV 1 set the OBS to 346 and follow.
- 6) Dial in MAY VOR (117.9) to the NAV 2 radio
- 7) When crossing MID set the OBS to 198 and follow until MID d17.
- 8) At MID d17 set NAV 1 to MAY and dial in OBS 264 and follow to the MAY VOR
- 9) When crossing MAY you will be at an altitude of between 3000 feet and 6000 feet as directed by ATC.
- 10) You should also be at exactly 220 Kts
- 11) You could now follow the pattern in one of 2 ways we will describe the easiest
- 12) Set your OBS to 090 and your heading hold to 270.
- 13) After passing MAY you will need to perform a standard rate turn to heading 270.
- 14) Follow 270 until at MAY d5
- 15) Then perform a standard rate turn to radial 090 16) Yet again follow until crossing the MAY VOR, then repeat the pattern

Note to remember, always check the ATIS. (Automatic Terminal Information Service)

Practice these holding patterns when you think you are ready contact your flight instructor and you will be issued with a STAR to follow together with the chart and the situation file for the flight. As before record on 1 second interval and e-mail to the instructor.

Once you have completed the training, then you should be fully prepared for the flight procedures you will face when flying online. However you may need to look at the rest of the courses offered to fully prepare yourself.

Do not worry too much, so long as you are considerate and polite ATC will allow you to make mistakes, just remember to learn from them.

Although for a true STAR you would most likely be descending all the way to the holding pattern. For the example flights and the test you will start at 6000 feet and hold until you have completed 2 circuits of the MAY holding pattern. You will then land following the procedure shown below, remembering that during ATC controlled flight you will be directed to the intercept point of the ILS by ATC.

Leaving the Holding Pattern and Landing.

Once you have completed 2 circuits of the holding pattern you may then continue and execute your landing on runway 8R at London Gatwick. The following procedure is not necessarily

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representative of the true directions you will receive however it does still involve following the NAV headings.

- 1) Set your NAV 1 radio to the ILS frequency (110.9) and the OBS to 081 runway 8R heading
- 2) Set your NAV 2 radio to the MAY VOR (117.9)
- 3) Ident both
- 4) Follow the MAY VOR to MAY d17
- 5) Turn right to 010 degrees and descend to 4000 feet until intercepting the localiser for runway 8R.
- 6) From this point on follow the localiser and the glideslope down to the runway. That should complete the essentials of the STAR.

Original by Nick Partridge (Edited Liam Tallis)