CZEG Phraseology

IFR Departure, Arrivals, Centre and FSS Cheat Sheet

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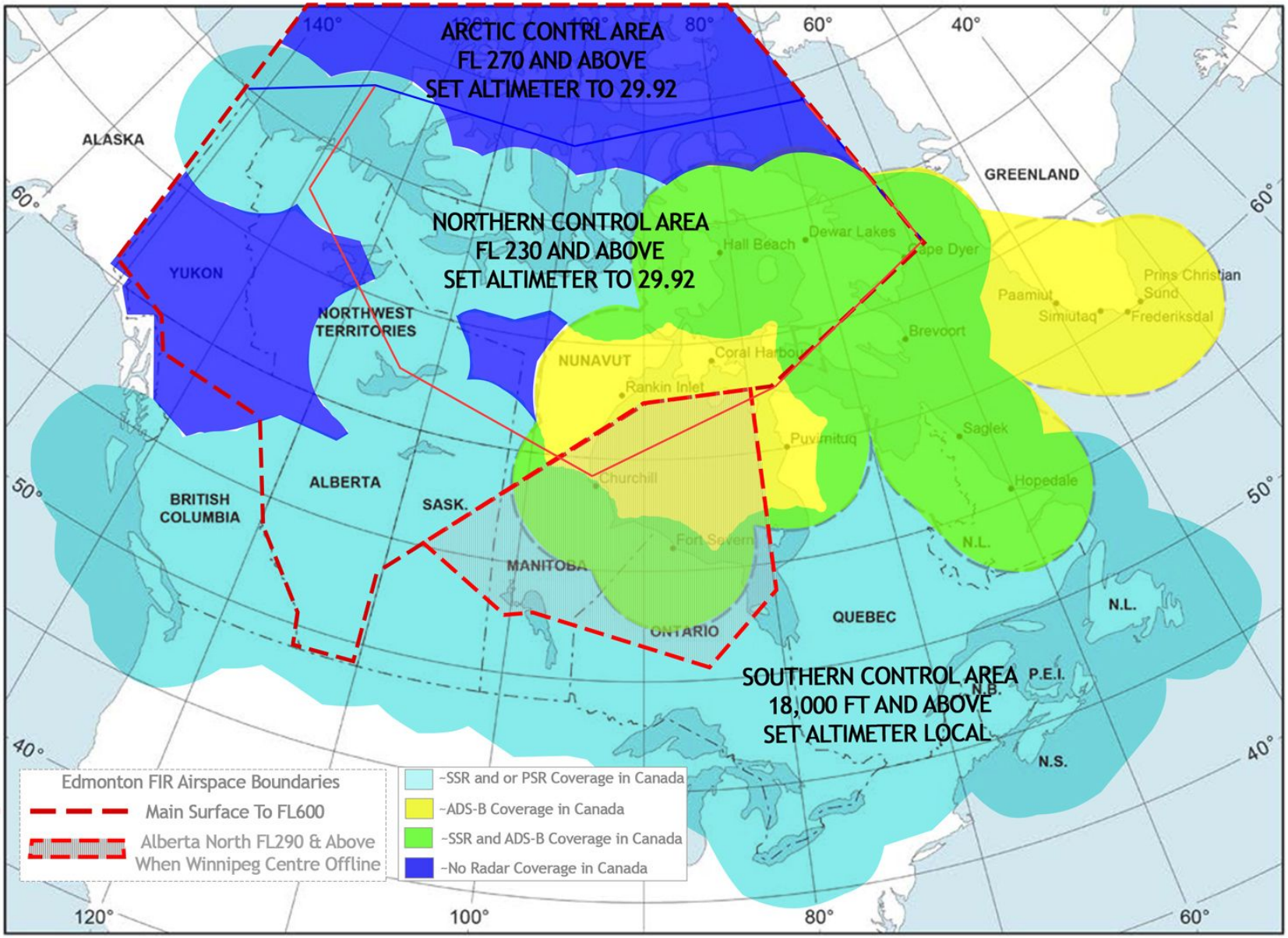
DATE	REVISION BY	VERSION	NOTES
July 24, 2018	Owen Kane	0.85	Initial Document Creation
July 28, 2018	Owen Kane	1.10	Added References, Diagrams and Checks
August 8, 2018	Owen Kane	1.15	Added ADS-B Phraseology Per AIMCom Section
Jan 10, 2019	Josh Agins Owen Kane	1.27	Major Changes To Arrivals And Departures

Any And All Content In This Document Is For Use With The Virtual Air Traffic Simulation Network (Vatsim) and May Not Be Used For Real-world Navigation and Aviation Purposes. Doing So Could Be A Violation Of Federal Law.

Information In This Document Is Compiled From Various Sources included but not limited to Nav Canada Manops 2012, CBT, and notes from past and present Virtual Controllers This Document is to be used in conjunction with the Edmonton FIR Terminal, Center and Procedural Reference Manuals For Controllers.

EDMONTON FIR CONTROLLED AIRSPACE, RADAR COVERAGE & ALTIMETER SETTINGS



Controller Pre-Session Checklist And Resource LIst

We ask our Edmonton Controllers to plan for a minimum 1 hour ATC session at any one time. Be Prepared and Ready!
This list of resources and suggestions will make for a better controlling experience for you and the other controllers and pilots you may encounter. Controllers are asked to please report any broken links to info@czeg.ca

Item	Reason or Suggestion	Suggested Resource
1	Investigating who's online (Pilots & Controllers), will better prepare you for who and what you may encounter	***Vattastic***, ***Accumap*** ***or*** ***Vatspy*** Both a good programs it really comes down to a personal preference.
2	Once you have determined the position you plan on controlling and providing an ATIS for it's a good idea to check Nav Canada Resources for Winds and Runway Usage (Major Airports)	Nav Canada Notams And Weather - Current Information Nav Canada Operational Information System - Updates On Minute Nav Canada IIDS WebView - Live RVR - Updates Every 15 Minutes Windy - CYYC - METAR and Maps
3	Jump On Vatcan Teamspeak, A great way to reach other controllers in Edmonton and Other FIR's.	Vatcan Teamspeak Server Use Your Full Vatsim Name No Password - Our Home Room Edmonton's Pipeline Dinner
4	Make Sure You Have The Latest CAP Charts Available. There are many resources available including Nav Canada - Purchase Only	FltPlan Dot Com - A Wonderful Resource - A Free Account Skyvector - No Canadian IFR Charts Navigraph Charts - Good Alternative - Subscription Based
5	**CZEG Controller Resources - From CZEG and Other Sources**	
	Check Our Website For Updates You Can't Control Without The Latest Sector Files Know Those Aircraft Designations and Specifications Latest Canada Air Pilot IFR General Document Current Canada Airport Charts (Not IFR CAP) Current Calgary VFR Terminal Chart Backpage Current Edmonton VFR Terminal Chart Backpage Current CFS VFR Terminal Procedures (All Prov) CZEG Mandatory IFR Flight Plan Routes Euroscope WIKI - OnLine Manual PDF Version Euroscope 3.1 Manual - Excellent Reference	CZEG Website Current CZEG Sector Files ICAO Aircraft Designations CAP IFR General Canada Airport Charts Calgary VFR VTA Back Edmonton VFR VTA Back CFS VFR Terminal Procedures CZEG Mandatory IFR Routes Euroscope Manual Original Euroscope 3.1 Manual

IFR - Departure Phraseology		
	On Initial Contact with Aircraft, Controllers Should Say Airport & Position “Calgary Departure”	
Item	Format Of Phrase and Instructions	Example Phrase
1	IFR Departures Initial Call	
	[Callsign], [Airport] departures, radar identified, (Current altitude if appropriate), [Climb [Altitude], Turn left/right heading [XXX], (Vectors for the climb - or to intercept [Airway] on course). Proceed/turn left/right direct [Fix] on course.	**"JAZZ 7779, Calgary Departures, Radar Identified, Through 4500 Feet, Climb 7000 Feet, Turn Left Direct BOTAG On Course"** **"JAZZ 7779, Calgary Departures, Radar Identified, Through 4500 Feet, Climb 7000 Feet, Runway Heading"** **"JAZZ 7779, Calgary Departure, Turn Right heading 080, Vectors For The Climb"** **"JAZZ 7779, Calgary Departure, Climb FL 210, Turn Right Direct OTARA on course”**
2	IFR Departure Vectors No Up Line Controller Clearing The Zone	
	[Callsign], [Airport], departures, Turn left/right heading [XXX], (Vectors for the climb or to intercept [Airway]). Proceed/turn left/right direct [Fix], {Upstream ATC] Offline, Radar Services Are Terminated, Frequency Change to [Frequency] Approved, Proceed on course,	**"JAZZ 7779, Calgary Departure, Turn Right Direct OTARA, Edmonton CTR Offline, Radar Services Are Terminated, Frequency Change to 122.80 Approved, Proceed On Course”**
3	IFR Departure Vectors With Up Line Controller Clearing The Zone.	
	[Callsign],[Airport], departures,[Climb [Terminal Altitude], Turn left/right heading [XXX], (Vectors for the climb - or to intercept [Airway], Contact {Upstream ATC] at [Frequency].	**"JAZZ 7779, Climb FL 210, Turn Right Direct OTARA, Contact Edmonton Centre 135.20"**

IFR Arrivals - RNAV STAR Phraseology		
Item	**Format Of Phrase and Instructions**	**Example Phrase**
1	**Initial Contact - Arrivals STAR, Aircraft To Fly The STAR As Published**	
	[Callsign], ,Descend [Altitude], Altimeter [Altimeter], Expect the [Approach], [Runway] Or [Callsign], ,Descend [Altitude], cross [Transition] at [Altitude], Altimeter [Altimeter]Expect the [Approach], [Runway]	**JAZZ123 descend 8,000, Altimeter 29.89, Expect ILS Approach Runway 17R** **Or** **JAZZ123 descend 8,000, cross OVEBI at 8,000, Altimeter 29.89, expect ILS Approach Runway 17R**
2	**Initial Contact With CTR Controller - Arrivals Controller Offline - Arrivals STAR, Aircraft To Fly The STAR As Published**	
	[Callsign], ,Descend [Altitude], Cross [Transition] at [Altitude], Altimeter [Altimeter], Expect the [Approach], [Runway]	**JAZZ123 when ready descend 8,000 cross OVEBI at 8,000, Altimeter 29.89, expect ILS Approach Runway 17R**
3	**Initial Contact With CTR Controller Arrivals Online - Arrivals STAR, Aircraft To Fly The STAR As Published**	
	[Callsign], ,Descend [Bedpost Altitude], Altimeter	**JAZZ123 when ready descend 13,000, Altimeter 29.89**
4	**Arrival STAR Descents Speed Restrictions Cancelled**	
	[Callsign], Descend [Altitude], [Speed], Speed Restrictions Cancelled	***"Air Canada 123, Descend 8000, Maintain Best Speed, Speed Restrictions Cancelled"***
5	**Arrivals Immediate Descents**	
	[Callsign], Descend Now [Altitude].	***"Air Canada 123, Descend Now 8000 Feet"***
6	**CANCELLATION OF CLEARANCE**	
	[Callsign], Approach Clearance Now Cancelled, (Reason).	***"Eastern 420, Approach Clearance Cancelled, Vectors For Approach, Traffic Sequencing"***

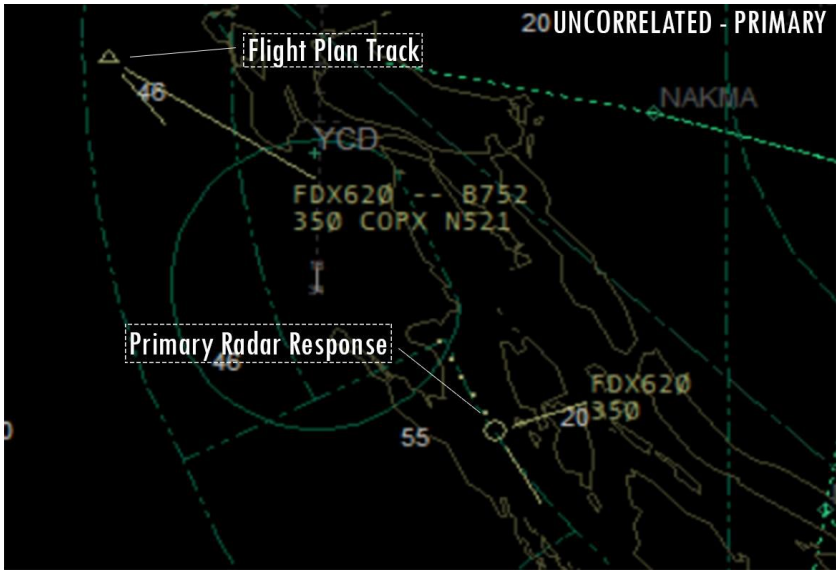
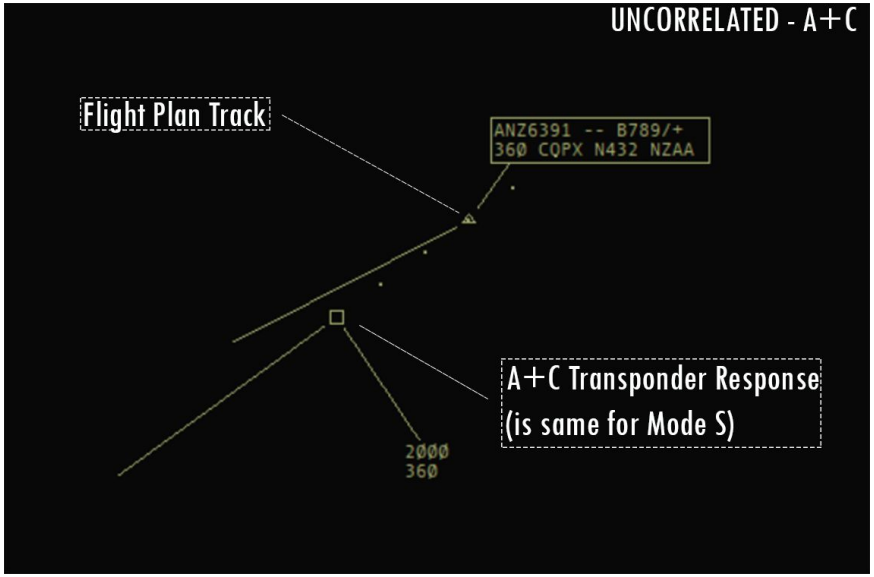
IFR - Approach Phraseology		
	On Initial Contact With Aircraft, If UPStream ATC Is Offline - Controllers Should Say Airport & Position "Calgary Arrival"	
Item	Format Of Phrase and Instructions	Example Phrase
1	Open RNAV STAR Approach (Before DTW Transition)	
	[Callsign],Turn [Left/Right] Fly Heading [Heading], To Intercept The Localizer, Cleared ILS Approach Runway [Runway]	**"JAZZ123 Turn Right, Fly Heading 140 To Intercept the Localizer, Cleared ILS Approach Runway 17L"**
2	Open RNAV STAR Approach (After DTW Transition)	
	[Callsign],Turn [Left/Right], Direct [FACP], To Intercept The Localizer, Cleared straight in approach ILS Approach Runway [Runway] Or [Callsign],Turn [Left/Right] Fly Heading [Heading], To Intercept The Localizer, Cleared ILS Approach Runway [Runway]	***"Transat 345, Turn right direct ELERO, To Intercept The Localizer, On Intercept Cleared Straight in ILS Approach Runway 17R"*** ***Or*** **"Transat 345, Turn Right Fly Heading 140 To Intercept the Localizer, Cleared ILS Approach Runway 17L"**
3	(ILS/RNAV-Z/ RNP-Y) Approach Closed RNAV STAR or Hybrid Open RNAV STAR (CYEG)	
	(Callsign) Cross [Transition] at [Altitude], Cleared [ILS/RNAV-Z/RNP-Y] Approach Runway [Number]	**"JAZZ123, Cross SUVAT at 5,000, Cleared ILS Approach Runway 30"**
4	Approach Future Use	

IFR Centre Controller - Professional Mode - Know Your Radar Targets (BLIPS)

More Information On Radar Targets Can Be Found In - Euroscope Wiki

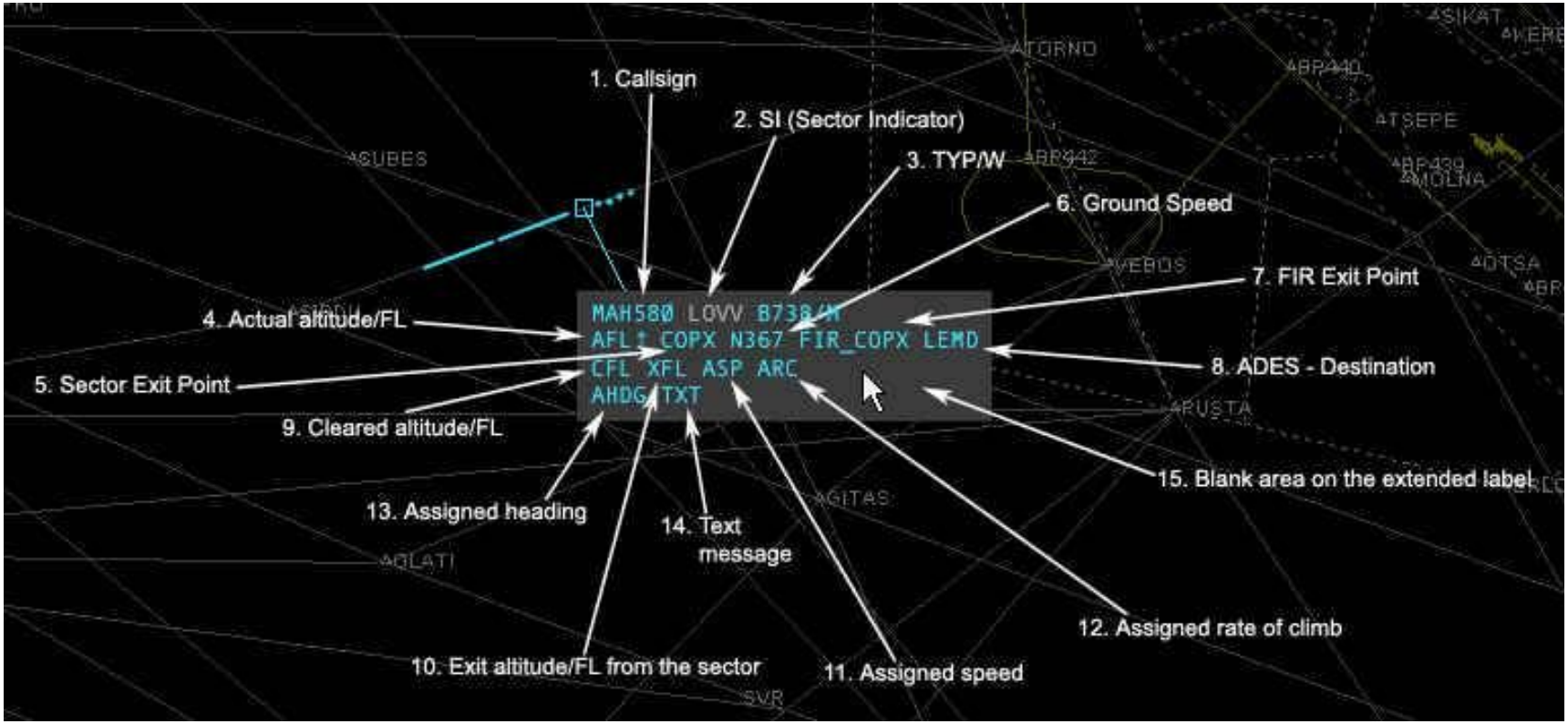
Item	Radar Target And Definition	Radar Target And Definition
1	 **PPR only:** When a position is within the radar coverage area and the transponder is disabled. This is the radar response, not a transponder. Tag will show the text TSSR. It will show the position, but no info as there's no response from a transponder.	 **A+C mode SSR only:** When the position is within the radar coverage area and it is too far out to receive primary radar responses, but the transponder answers are detectable. When A+C-mode transponder answer is received this symbol is used.
2	 **S mode SSR:** Similar to the **A+C mode SSR only**, but we receive an S-mode transponder response.	 **PPR and A+C mode SSR:** When both, primary radar position is received along with an A+C-mode transponder answer.
3	 **PPR and S mode SSR:** Same as before, but we receive an S mode transponder response. An S mode will always show over and A+C response.	 **Flightplan track:** The flightplan track's calculated positions are indicated by a triangle… This by itself indicates that the aircraft is in an area of **No Radar coverage.**
4	 **PPPR and mode SSR:-** Squawk Ident - If a mode S aircraft is squawking IDENT with text: SPI (Special Position Identification) indicates its position.	 **Coasting:** When there is no position update for 30 seconds, the target of the aircraft changes to #. Controllers will experience this at times when an aircraft is prior to or leaving radar coverage.

IFR Centre Controller - Uncorrelated Flight Plan Tracks

Item	Sample Screen - Uncorrelated PPR Target (BLIP)	Example Screen - Uncorrelated A+C Target (BLIP)
1		
	These are tracks based on estimated positions. When inside radar coverage, two blips appears on your screen. One, the estimated flight plan track and the other is the radar response. The estimated flight plan track has all of the information, but the position is not inaccurate, as it's an estimate. The other, the radar target will display either the squawk code (with A+C only) or the callsign (transmitted from a mode S callsign, within mode S airspace). Controllers must correlate the two targets (BLIPS) either by assigning a squawk code (Prefered Method) to the flight plan or by left clicking on the text associated with the radar response, doing either, correlates the targets or blips together with what the plane's transponder has been told to transmit.	
2	**IFR Centre - Understanding Professional Modes**	
	More Information on Professional Modes can be found here - Euroscope Professional Mode Manual Download	

IFR Centre - Phraseology		
Item	**Format Of Phrase and Instructions**	**Example Phrase**
1	**Centre - Contact Aircraft Not Tuned to Your Frequency**	
	Type (DOT) [.Contactme], in Chat Message Window and Left Click On The Aircraft Tag **".contactme"**	***If No Response in 30 Minutes Type (DOT) [.Wallop NORDO], Hit The Return Key - To Contact A SUP*** ***".wallop NORDO"***
2	**Centre - Aircraft Responded to Initial Contact**	
	[[Callsign], Say Altitude, Squawk [XXXX] and Ident.	***"Envoy 2198, Say Altitude, Squawk 0465 and IDENT"***
3	**Centre - Confirm Initial Contact**	
	[Callsign], Welcome Aboard, Radar Identified, [Altitude], Proceed On Course	***"Envoy 2198, Welcome Aboard, Radar Identified, FL350, Proceed On Course""***
4	**TRAFFIC INFORMATION**	
	[Callsign], traffic, [Position], [Distance], [Direction of flight], [Type], [Altitude]	"***Westjet 345, traffic, 3 o'clock, 4 miles, eastbound, Boeing 747, 5000 Feet"***
5	**IFR Centre - Future**	

Introducing The Euroscope Aircraft Tag



1. Callsign - It Displays The Callsign Of The Aircraft	6. Ground Speed - The Ground Speed Of The Aircraft	11. Assigned Speed - The Speed Assigned To The Aircraft
2. Sector Indicator - The Current Or The Next Controller	7. FIR Exit Point - The Coordination Point Along The Route Where The Aircraft Leaves The Actual Fir	12. Assigned Rate Of Climb/Descend - The Assigned Rate Of Climb Or Descend To The Aircraft
3. Aircraft Type - Type Of The Aircraft- The Flight Plan	8. Destination - The Icao Code Of The Destination Airport	13. Assigned Heading - The Assigned Heading To The Aircraft
4. Actual Altitude/Fl - Actual Altitude Or Flight Level Of The Aircraft	9. Cleared Altitude/Fl - The Altitude Or Flight Level Cleared To Be Reached	14. Text Message - The Scratch Pad
5. Sector Exit Point T - The Next Coordination Point Along The Route	10. Exit Altitude/Fl From The Sector - The Coordinated Altitude Or Flight Level At The Next Coordination Point	15. Blank Area - No Use For Now

Original Euroscope 3.1 PDF Manual - Excellent Reference That Is Much Easier To Use Than Euroscope WIKI - Euroscope 3.1 Manual

IFR Centre - General Phraseology		
Item	**Format Of Phrase and Instructions**	**Example Phrase**
1	**NAVIGATION**	
	[Callsign], turn left/right heading [XXX] (Give the reason unless	***"Westjet 623, Turn Left Heading 090"***
2	**CLIMB / DESCENT**	
	[Callsign], climb/descent [Altitude]. [Callsign], cross [Fix] at [Altitude] - or - [Descent instruction] to be level by [Fix].	***"Speedbird 972, Climb 12,500 Feet"*** ***"Speedbird 439 Cross PEVLA at Flight Level 210"***
3	**LEAVING CONTROLLED AIRSPACE**	
	[Callsign], leaving controlled airspace, radar services terminated, squawk [1000/2000/1200/1400], cleared en-route frequencies.	***"Air Canada 789, Leaving Controlled Airspace, Radar Services Terminated, Squawk 2000, Frequency Change to 122.80 Approved"***
4	**CLEARANCE OUT OF LOW-LEVEL CONTROLLED AIRSPACE**	
	[Callsign], cleared to descent out of controlled airspace in the vicinity of [Location]. The MSA Altitude is [Number]	***"Canadian 1875, Cleared To Descend Out Of Controlled Airspace In The Vicinity Of Cambridge Bay, The MSA Altitude is 6,500 Feet"***

EUROSCOPE CHEAT SHEET

	Parameters	Action
F2	+ 4 letter ICAO Code(s)	Add/Remove METARs
F3	+ Click Aircraft Tag	Track Aircraft/Accept Handoff
F4	+ Click Aircraft Tag	Drop Aircraft/Reject Handoff/Initiate Handoff
F5	+ Altitude (hundreds) + Click Aircraft Tag	Change Final Altitude (Flightplanned altitude)
F6		Show Flight Strip for current aircraft
F7		Cycle through open Radar Views
F8	+ Altitude (hundreds) + Click Aircraft Tag	Change Temporary Assigned Altitude
F9	+ Click Aircraft Tag	Automatically Assign a squawk code
	+ 4 digit code + Click Aircraft Tag	Manually assign specified squawk code
	+ V/R/T + Click Aircraft Tag	Set the communication type (voice/receive only/text)
F11		Zoom In Radar
F12		Zoom Out Radar

	Command	Parameters	Action
F1 + a	.am	+ Click Aircraft Tag	Amend flight plan
F1 + c	.chat	+ Click Aircraft Tag	Open chat window
F1 + d	.distance	+ Click Aircraft Tag + Click Aircraft Tag/Point	Displays continually updated distance between aircraft and aircraft/point
F1+f	.find	+ type any Aircraft/Fix	Display line from centre of screen to that point
F1+p	.point	+ Controller ID Tag + Click Aircraft Tag	Highlights the specified aircraft on the specified controller's screen (*"Point Out"*)
F1+s	.sep	+ Click Aircraft Tag + Click Aircraft Tag	Displays continually updated prediction of closest point between aircraft
F1+0			Close current ASR view
F1+1 -> F1+9			Opens the pre-defined ASR views (defined in General Settings, pg 2)

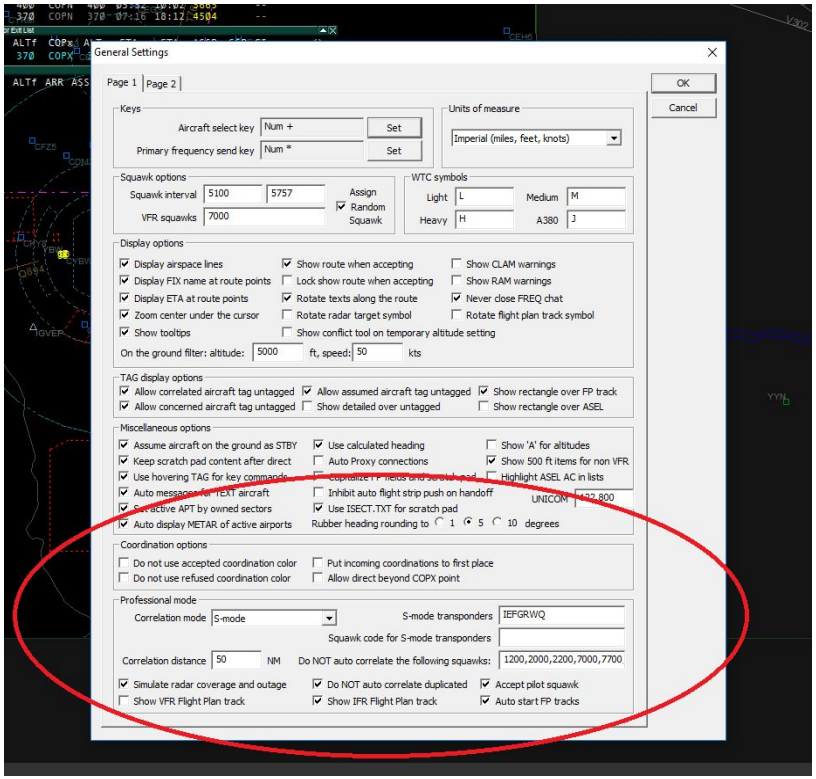
Command	Parameters	Action
.break		Changes colour of your callsign (as seen by other controllers) to indicate you need a break/relief.
.center	+ Specify fix/aircraft	Centre the current radar view on the specified fix/aircraft
.contactme		Sends a text message to a pilot to "Contact me on frequency ###.###". Shortcut Key: HOME
.nobreak		Cancel the previous .break command
.qs	+ Contents of scratchpad	Change the aircraft scratchpad. Shortcut Key: INS
.rings	+ centre + spacing + number	Displays range rings about the centre point, the spacing (in miles) and number of rings are specified. .rings with no parameters clears the rings
.showvis		Shows the range of airspace where VATSIM aircraft information is visible
.vis	+ up to 4 fixes	Sets the centres of the VATSIM visibility range
.vis1, .vis2, .vis3, .vis4	+ fix	Specify individual centres of VATSIM visibility ranges
.wallop	message	Send a message to all online SUPervisors

November 2 2016

IFR Centre - General Phraseology		
Item	**Format Of Phrase and Instructions**	**Example Phrase**
5	**CLEARANCE OUT OF HIGH-LEVEL CONTROLLED AIRSPACE**	
	[Callsign], cleared out of [Type of airspace].	***"Westjet 345, Cleared Out Of Controlled Airspace"***
6	**VFR - FLIGHT FOLLOWING INITIAL CONTACT**	
	[Callsign], altimeter [XXXX], squawk [Code] [Callsign], radar identified, remain VFR, report any altitude change, (Additional pertinent information, weather..)	***"CREBL, altimeter 28.78, squawk 1298"*** ***"CREBL, Radar Identified, Remain VFR, Report Any Altitude Changes"***
7	**VFR - FLIGHT FOLLOWING RADAR IDENTIFIED**	
	[Callsign], radar identified, remain VFR, report any altitude change, (Additional pertinent information, weather..)	***"CREBL, Radar Identified, Remain VFR, Report Any Altitude Changes"***
8	**ENTER A HOLDING CLEARANCE (Readback Required By Pilot)**	
	[Callsign], cleared to the [Fix], hold [Direction] on (Specified) radial/course/inbound track, expect further clearance at [Time]. [Callsign], cleared to the [Fix], Hold As Published, expect further clearance at [Time].	***"Air Canada 123, cleared to the BIRKO intersection, hold east on the 056 radial, maintain FL210 expect further clearance at 2130z*** ***"Air Canada 123, cleared to the VESPA Intersection , Hold As Published, Maintain 14,000, expect further clearance at 2130z***
9	**EXITING A HOLDING CLEARANCE (Readback Required By Pilot)**	
	[Callsign], exit the hold (Additional instructions)..	***"Air Transat 123, Cleared to Calgary Airport direct BIRKO"***
10	**Center & Terminal General Phraseology - Future**	

Controller Procedural Pre-Session Checklist And Resource LIst

Controller Is Responsible For Ensuring All Pilots Say "Readback Correct" After All Clearance and Instructions
Keep In Mind The Varying Degree Of Pilot Experience, Language Skills, And Aircraft. Keep It Fun And Educational

Item	Procedural Professional Settings	Suggested Resource Or Screen Shot
1	Euroscope Professional Mode Settings For Procedural	Main Menu - Other Settings - General Settings
	To be able to achieve the required level of control for Procedural Control, Euroscope's Professional Mode settings need to be properly set. Under the General Settings dialog box, the following settings need to be selected **(CHECK MARK)** on the "Professional mode" section as follows: ***PLEASE BE SURE TO CHECK THESE SETTINGS PRIOR TO EACH ATC SESSION, ESPECIALLY ITEM'S 1 & 9*** 1. Correlation Mode: S-mode 2. S-mode transponders: IEFGRWQ 3. Squawk code for S-mode transponders: Leave blank 4. (Note: this may be changed eventually. If so, all 5. Procedural-rated controllers will be notified accordingly) 6. Correlation distance: 50 nm 7. Do not auto-correlate the following squawks: 1200, 8. 2000, 2200, 7000, 7700 9. Simulate Radar Coverage and Outage: Checked 10. Do not auto correlate duplicated: Checked 11. Accept Pilot squawk: Checked 12. Show VFR Flight Plan track: Unchecked 13. Show IFR Flight Plan track: Checked 14. Auto start FP tracks: Checked	
2	CZEG - Semi Automatic Position Report Spreadsheet	Get Your Copy Here

IFR Centre - Procedural Phraseology

CZEG - Procedural Position Report (Google) Spreadsheet - Available In The Controllers Section Of Our Website - A Sample Position Report Workflow Exchange Between Aircraft and ATC

ATC Call Sign:	Edmonton Radio													
Aircraft ---------->		Current Position ---------->				Flight Info ---------->		Estimate Next ---------->				Thereafter---------->		
Aircraft	Callsign	North	West	Fix	Time	FL	Mach	North	West	Fix	Time	North	West	Fix
1	FLY139			JESRU	1804	320	.79			PEKMO	15:27			PIGSO
Voice Or Copy Text	FLY139, Edmonton Radio Copies Passed Or Passing JESRU, At, 1804, Flight Level, 320, Mach, .79, Estimating, PEKMO, At, 15:27, PIGSO, Thereafter													
Dot Command	.POS,JESRU,1804,320,.79,PEKMO,15:27,PIGSO								.POS INVALID AS POSITION REPORT CONTAINS FIXES OR NO AC CALLSIGN					
Aircraft	Callsign	North	West	Fix	Time	FL	Mach	North	West	Fix	Time	North	West	Fix
2	CFA209			GABUL	16:00	350	.80	75	118		14:75			YMM
Voice Or Copy Text	CFA209, Edmonton Radio Copies Passed Or Passing GABUL, At, 16:00, Flight Level, 350, Mach, .80, Estimating, North, 75, West, 118, At, 14:75, YMM, Thereafter													
Dot Command	.POS,GABUL,16:00,350,.80,75,118,14:75,YMM								.POS INVALID AS POSITION REPORT CONTAINS FIXES OR NO AC CALLSIGN					
Aircraft	Callsign	North	West	Fix	Time	FL	Mach	North	West	Fix	Time	North	West	Fix
3	CREBEL	72	120		15:45	340	.89			MIKE	16:00			RADIO
Voice Or Copy Text	CREBEL, Edmonton Radio Copies Passed Or Passing , North, 72, West, 120, At, 15:45, Flight Level, 340, Mach, .89, Estimating, MIKE, At, 16:00, RADIO, Thereafter													
Dot Command	.POS,72,120,15:45,340,.89,MIKE,16:00,RADIO								.POS INVALID AS POSITION REPORT CONTAINS FIXES OR NO AC CALLSIGN					
Aircraft	Callsign	North	West	Fix	Time	FL	Mach	North	West	Fix	Time	North	West	Fix
4														
Voice Or Copy Text	, Edmonton Radio Copies Passed Or Passing , North, , West, , At, , Flight Level, , Mach, , Estimating, North, , West, , At, , North, , West, , Thereafter													
Dot Command	.POS,,,,,,,,,,								.POS INVALID AS POSITION REPORT CONTAINS FIXES OR NO AC CALLSIGN					
Aircraft	Callsign	North	West	Fix	Time	FL	Mach	North	West	Fix	Time	North	West	Fix
5														
Voice Or Copy Text	, Edmonton Radio Copies Passed Or Passing , North, , West, , At, , Flight Level, , Mach, , Estimating, North, , West, , At, , North, , West, , Thereafter													
Dot Command	.POS,,,,,,,,,,								.POS INVALID AS POSITION REPORT CONTAINS FIXES OR NO AC CALLSIGN					
Aircraft	Callsign	North	West	Fix	Time	FL	Mach	North	West	Fix	Time	North	West	Fix
6														
Voice Or Copy Text	, Edmonton Radio Copies Passed Or Passing , North, , West, , At, , Flight Level, , Mach, , Estimating, North, , West, , At, , North, , West, , Thereafter													
Dot Command	.POS,,,,,,,,,,								.POS INVALID AS POSITION REPORT CONTAINS FIXES OR NO AC CALLSIGN					
Aircraft	Callsign	North	West	Fix	Time	FL	Mach	North	West	Fix	Time	North	West	Fix
7														
Voice Or Copy Text	, Edmonton Radio Copies Passed Or Passing , North, , West, , At, , Flight Level, , Mach, , Estimating, North, , West, , At, , North, , West, , Thereafter													
Dot Command	.POS,,,,,,,,,,								.POS INVALID AS POSITION REPORT CONTAINS FIXES OR NO AC CALLSIGN					

1	CHA3381 Initiates Call To Edmonton Radio	*"Edmonton Radio, CHA3381, Position Report"*
2	Edmonton Radio Responds	*"CHA3381, Edmonton Radio, Go Ahead"*
3	CHA3381 Reads Position Report	*"Edmonton Radio, CHA3381, Passed Or Passing, North, 56, West, 79, At, 15:33, Flight Level, 350, Mach, .79, Estimating, North, 45, West, 27, At, 15:27, North, 67, West, 57, Thereafter"*
4	Edmonton Radio Responds	*"CHA3381, Edmonton Radio, Passed Or Passing, North, 56, West, 79, At, 15:33, Flight Level, 350, Mach, .79, Estimating, North, 45, West, 27, At, 15:27, North, 67, West, 57, Thereafter"*
5	CHA3381 Response To Edmonton Radio	*"Edmonton Radio, CHA3381, Readback Correct"*

IFR Centre - Procedural Phraseology		
Item	**Format Of Phrase and Instructions**	**Example Phrase**
1	**Procedural Initial Contact**	
	[Callsign], Edmonton Radio, Squawk 2000, Position Reports Required	***"Speedbird 123, Edmonton Radio, Squawk 2000, Position Report Required"***
2	**Procedural - Pilot Calls When Ready To Provide Position Reports**	
	[Callsign], Edmonton Radio copies, Go Ahead	***Speedbird 123, Edmonton Radio, Go Ahead***
3	**Procedural - After Pilot Position Reports Similar To Oceanic - This Is Your Readback To Pilot**	
	[Callsign], Edmonton Radio copies, Passed Or Passing [Current Position] at [Time Zulu], [Current flight level], [Current Speed] Estimating [Next Position] at [Zulu Time], [Last Position] thereafter.	***"Speedbird 123, Edmonton Radio copies, Passed Or Passing, 78 North 100 West at 1521, flight level 380, Mach .78. Estimating 70 North, 127 West at 1553, 64 North 140 West thereafter."***
4	**Procedural - Amendment To Position Reports**	
	[Callsign], Edmonton Radio copies [Current Position] at [Time Zulu]	***Speedbird 123, Edmonton copies estimating 79 North 95 West at 1556 Zulu***
5	**Procedural - Simple Aircraft Climbs Or Descents**	
	Speedbird 123, Edmonton Radio, Clears, Speedbird 123 ([Climb], [Descend]}, [Maintain]), flight level [Altitude].Report level.	***"Speedbird 123, Edmonton clears Speedbird 123 climb flight level 390. Report level."***
6	**Procedural - Future Use**	
	When outside of radar, only the flight plan track will display. Here you can get an estimate from an aircraft by doing position reports, oceanic style, and edit the estimations in the flight plan dialogue or use this command: .est <waypoint> <time> <click on AC>.	

IFR Centre - Procedural Phraseology		
	Controller Is Responsible For Ensuring All Pilots Say "Readback Correct" After All Clearance and Instructions Keep In Mind The Varying Degree Of Pilot Experience, Language Skills, And Aircraft. Keep It Fun And Educational	
Item	**Format Of Phrase and Instructions**	**Example Phrase**
7	**Complicated Aircraft Climbs Or Descents With Instructions**	
	Speedbird 123, Edmonton Radio, Clears, Speedbird 123 ([climb], [Descend], [Climb and Reach], [Maintain]), flight level [Altitude].{Instructions], Report level.	***Speedbird 123, climb and reach flight level 390 before passing 79 North 100 West. Report level.*** ***Speedbird 123, Edmonton clears Speedbird 123 .maintain flight level 380. After passing 80 North 30 West, climb flight level 390. Report level.*** ***Speedbird 123, Edmonton clears Speedbird 123 maintain flight level 380. At or after 79 North 100 West, climb flight level 390. Report leaving, report level.*** ***Speedbird 123, Edmonton clears Speedbird 123 climb flight level 390, to be level before 79 North 100 West. Report level.***
8	**Aircraft Under Radar Surveillance Enters Non-Radar Area - Then Continue With Position Report Phraseology at (2)**	
	[Callsign], Edmonton Radio, Radar Identification Lost, Squawk 2000, Position Reports Required.	**"Speedbird 123, Edmonton Radio, Radar Identification Lost, Squawk 2000, Position Reports Required."**
9	**Procedural - Aircraft Under Position Reports Enters Radar Area**	
	[Callsign], Edmonton Radio, Radar Identified, Squawk [XXXX] ,Ident	***"Speedbird 123, Edmonton Radio, Radar Identified Squawk 4215, Ident"***
10	**Procedural - Aircraft Transfer From Another FIR and Idents**	
	[Callsign], Edmonton Centre, Radar Identified, Flight Level [Altitude], Proceed On Course	***"Speedbird 123, Edmonton Center, Radar Identified, FL380, Proceed On Course."***
11	**Procedural - Transfer Aircraft to Another Procedural ATC Unit (Anchorage ARTCC (WEST) Or Sondrestrom FIR (EAST))**	
	[Callsign], Contact [Facility], on [Frequency], at [Point].	***"Speedbird 123, Contact Anchorage Centre, On 135.75, At JESPU."***

IFR Centre - Procedural Separations

1 Procedural Lateral and Vertical Separations

Lateral separation: is the established distance between the routes of two aircraft. Aircraft may be separated laterally by 60 NM or 1 degree

Note: this is not the distance between aircraft at any given point, but the distance between any 2 points along 2 different routes.

Vertical Separation: Must be in place a minimum period before and after the estimated time. Aircraft may be separated laterally by 2,000 Feet

- Non-jet aircraft, the vertical separation must be in place 30 minutes before and after this point.
- Jet aircraft, the vertical separation must be in place 15 minutes before and after this point.

2 Procedural Longitudinal Separations

Vertical and Lateral separation are the easiest to ensure there are no conflicts for aircraft flying east/west across the NDA. However, if neither of these exists between two aircraft, the longitudinal separation must be employed. This separation is applied through restrictions at the first navigational point that is within the NDA, calculated according to the aircraft speed.

Sample Calculation: The first aircraft, X, has requested M0.84, with Y requesting M0.80. These aircraft are estimating to arrive at 6N502 within 10 minutes of each other. In this situation, the first aircraft has planned to travel 0.04 Mach faster, therefore the separation can be reduced to 7 minutes. The separation required is outlined in the table below:

Longitudinal Separations By Speed

Separation	Aircraft Following Is Slower By
10 Minutes	0.01 Mach
9 Minutes	0.02 Mach
8 Minutes	0.03 Mach
7 Minutes	0.04 Mach
6 Minutes	0.05 Mach
5 Minutes	0.06 Mach Or More

Longitudinal Separations By Distance

Separation	Average Lateral Separation
10 Minutes	91 Nautical Miles
9 Minutes	82 Nautical Miles
8 Minutes	73 Nautical Miles
7 Minutes	64 Nautical Miles
6 Minutes	55 Nautical Miles
5 Minutes	46 Nautical Miles

IFR Centre - ADS-B Phraseology		
	Controller Is Responsible For Ensuring All Pilots Say "Readback Correct" After All Clearance and Instructions Keep In Mind The Varying Degree Of Pilot Experience, Language Skills, And Aircraft. Keep It Fun And Educational	
Item	**Format Of Phrase and Instructions**	**Example Phrase**
1	**ADS-B Initial Contact**	
	[Callsign], Edmonton Radio, Identified, Squawk XXX, Ident	***"Speedbird 123, Edmonton Radio, Identified, Squawk 0456, Ident"***
2	**Aircraft Under ADS-B Surveillance Enters Non-Radar Area - Then Continue With Procedural Position Report Phraseology at (2)**	
	[Callsign], Edmonton Radio, Surveillance Services Terminated, Squawk 2000, Position Reports Required.	**"Speedbird 123, Edmonton Radio, Surveillance Services Terminated, Squawk 2000, Position Reports Required."**
3	**Aircraft Under Position Reports Enters ADS-B Area**	
	[Callsign], Edmonton Radio, Identified, Squawk [XXXX] ,Ident	***"Speedbird 123, Edmonton Radio, Identified Squawk 4215, Ident"***
4	**Aircraft Changes Squawk Code and Idents**	
	[Callsign], Edmonton Centre, Identified, Flight Level [Altitude], Proceed On Course	***"Speedbird 123, Edmonton Center, Identified, FL380, Proceed On Course."***
5	**Procedural - Transfer Aircraft to Another Procedural ATC Unit (Anchorage ARTCC (WEST) Or Sondrestrom FIR (EAST))**	
	[Callsign], Surveillance Services Terminated, Contact [Facility], on [Frequency], at [Point].	***"Speedbird 123, Surveillance Services Terminated, Contact Anchorage Centre, On 135.75, At JESPU."***