

Training of ATFM personnel

Davor Crnogorac

ATFM Workshop

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■ Training of ATFM Personnell

- ATFM in ECAC done on 4 major levels
- STRATEGIC, PRE-TACTICAL (D-6 to D-1), TACTICAL (D-Day) and POST-OPS (D+1)
- In TACT, most tasks fall on Flow Management Controllers (FMP's) and ACC SUPervisors
- There is significant freedom in deciding how to train ATFM Staff in EU States
- Local law in Croatia considers this staff (and others) as Safety Critical – thus Training Manual and Regular Oversight Audits by NSA
- We are Experts in local Environment – we decide

■ Training of FMP's

- Ideally ex-ATCO, person with good understanding of local (and cross-border) operational environment and constraints
- In many centres (States) this position is reserved for experienced ATCO's
- Dedicated FMP Training Modules at IANS (M1-M4)
- Theoretical training on location – local environment
- FMP on-the-job training developed by ANSP
- Internal FMP licence and competency scheme approved by NSA in each State

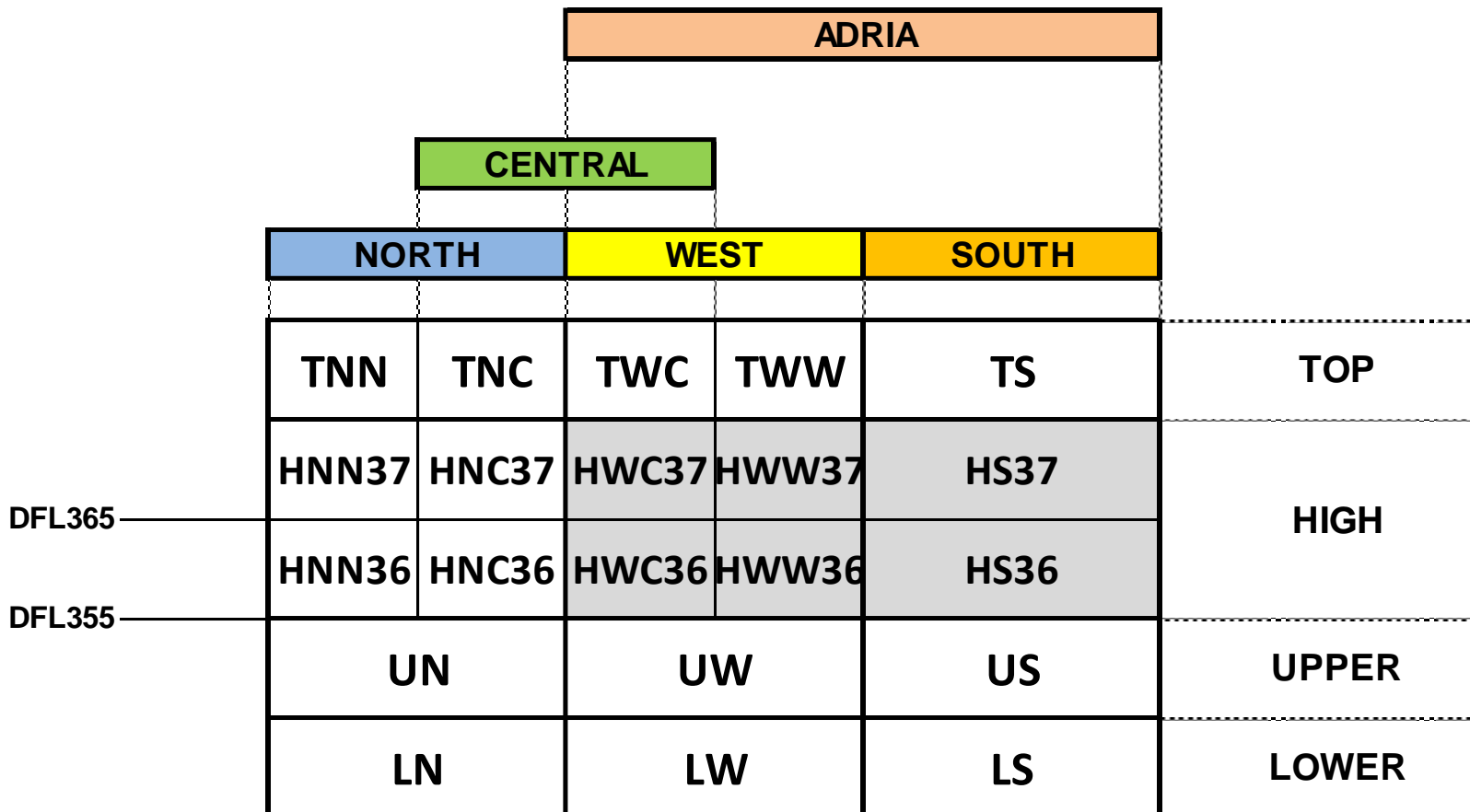
■ FMP training in Croatia

- After FMP Module 1 (purpose, area, ATFCM structure, phases, MSG's) continue with
- FMP Module 2 - Load Monitoring, Traffic Volumes, Configs, RR/FL Scenarios, Regulations, ATFM and non-ATFM Solutions...
- Theoretical training (in CCL) on Local Operational Environment (including adjacent ACC's)
- FMP OJT – normally around 100 OJT hours
- FMP OJT Exam, after which we issue certificate valid for 3 years
- FMP Competency Scheme – minimum 30 hours on position in any 6 month period

■ ATFM Training for ACC Supervisors

- SUP has final responsibility for all actions
- FMP assists him/her with suggestions
- SUP ATFM training part of ACC Supervisor Training, reduced compared to FMP
- Expanded in STAM and other last-minute options
- Regular SUP meetings with assesment of actions
- FMP supports SUP in taking the most efficient decision

■ Why is this important



Why is this important

Everyday we start with ACC as 1 sector....

c1	c4a	c5a	c5w	c6a
ALL	N THA UA LA	THN HN ULN ULA	N THW UW LW S	DN 7UN1 THN THA ULN UW LA US
c2a	SUN1 DN/DA/DL c4b	SUN1 DN/DA/DL c5b	c5x	c6b
N A	THN THA ULN ULA	THN THA ULN ULW ULS	N TW HW ULW S	THN THA ULN 135,8 ULS
c2b	DL c4c	c5c	c5z	c6c
THALL ULALL	N THA ULW ULS	N THA UW LW ULS	N TW HW THS ULA	THN THA UN LN 135,8 ULS
c3a	DA c4d	c5d	c6d	
N THA ULA	N THW THS ULA	N THA UW US LA	DN 7UN2 THN THA ULN UW LW ULS	
c4e	DL c5e	c6e	7UN3 7UN1 SUN1 DN/DA/DL/DL/DL/DL	c6e
N THA ULA	THN THA ULN ULW ULS	THN THA ULN LN THS ULA	THN THW THS ULN ULW ULS	THN THW THS ULN ULW S
c3b	DL c4f	c5f	c6f	
THALL ULN ULA	N THW S ULW	THN THW THS ULN ULA	DN THN THW ULN ULW S	

..and end with 16 elementary sectors within over 300 configurations

C9c20	c10C1	c11C1
THNN ULN	THC ULN	THC ULN
TAW HWW ULW LW ULS	TWW HWW ULW ULW ULS	TS HS US LS ULS
c9C21	c10C2	c11C2
THNN ULN	THC ULN	TNN HNN ULN
TC HC ULW ULS	TWW HWW ULW ULW ULS	TS HS THS ULS LS
c9C22	c10C3	c11C3
THNN ULN	THC ULN	TNN HNN ULN
TC HC ULW ULS	TWW HWW ULW ULW ULS	TS HS 137 ULS LS
c9C23	c10C4	c11C4
THNN ULN	THC ULN	TNN HNN ULN
TWW HWW ULW ULW ULS	TS HS HAW ULW ULW ULS	TS HS ULS LS
c9C24	c10C5	c11C5
TNN HNN ULN	THC ULN	TNN HNN ULN
TC HC ULW ULS	TWW HWW ULW ULW ULS	TS HS ULS
c9C25	c10C6	c11C6
THNN ULN	THC ULN	TNN HNN ULN
TC HC ULW ULS	TWW HWW ULW ULW ULS	TS HS ULS
c9C26	c10C7	c11C7
TNN HNN ULN	THC ULN	TNN HNN ULN
TC HC ULW ULS	TAW HAW ULW ULW ULS	TS HS ULS

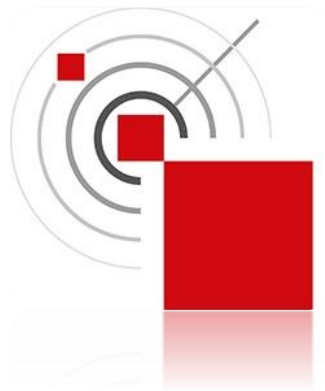


SUP has overall responsibility for all ATFCM actions:

- Choosing the best configuration
- Monitoring for overload and underload
- Outside effects (MIL, Weather, ASM/FUA) reduce Sector Capacities (MV's)
- Even with current systems, the situation (Predictability) constantly changes, we need more last minute options
- Good Pre-Tact (D-1) plan considered most important

■ Closing the gap between ATFM and ATC

- Recently, additional FMP tasks are considered, like Extended or Multisector Planner (through SESAR)
- FMP has knowledge about incoming TFC 2-3 hours before ENTRY
- ATC Sector has 12 min notification (EST is exchanged between ACC's)
- New tools are being developed to allow future tactical deconfliction of Flows, enhance FPL adherence and assist in Complexity Management



Thank you for your attention!

Davor Crnogorac

Head of ATFM and ASD Department

Croatia Control Ltd.

Tel: +385 1 6259-362

Fax: +385 1 6259-363

GSM: +385 99 2439 125

davor.crnogorac@crocontrol.hr