



DSNA



Safety Promotion Committee 2019 Edition

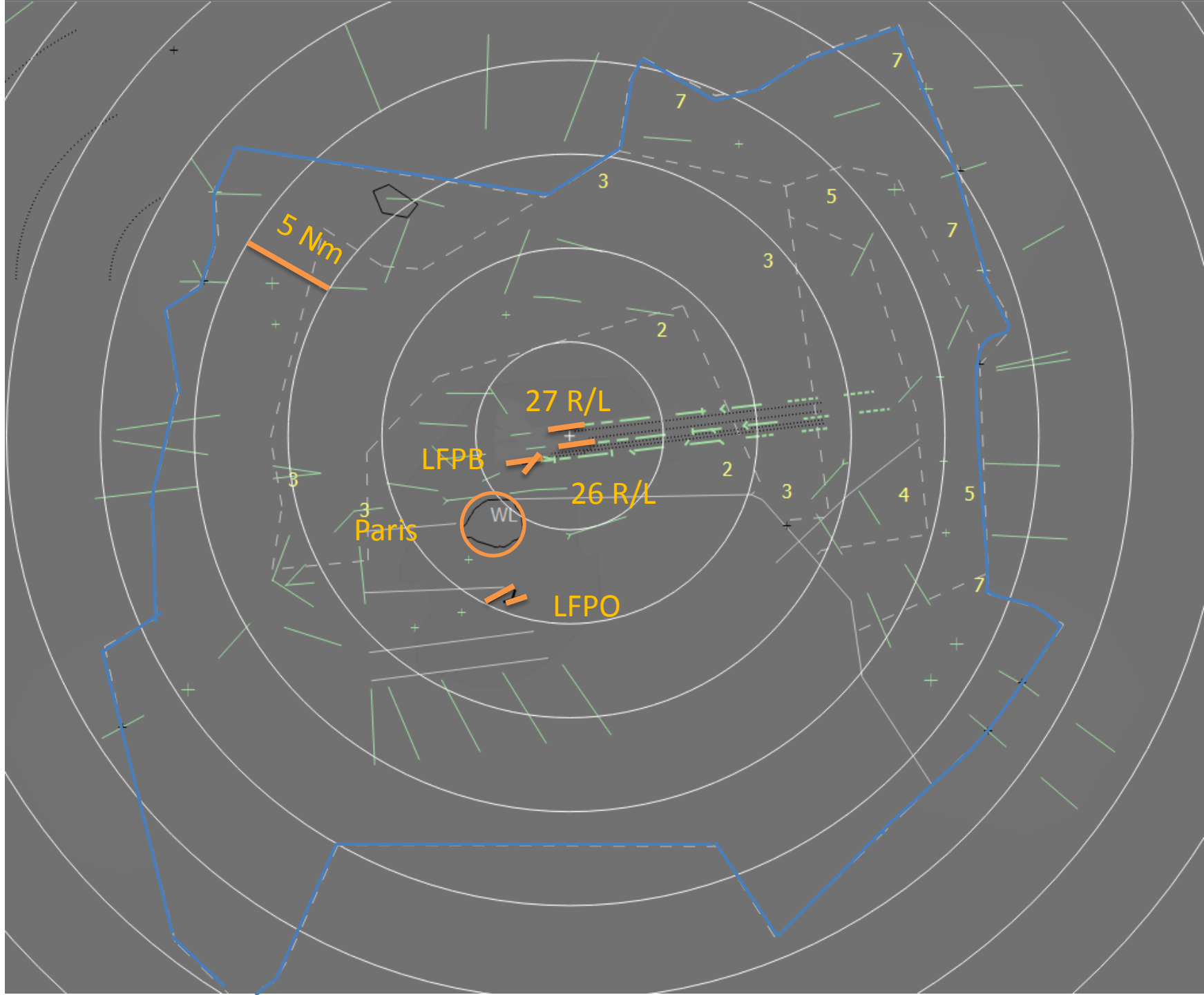
ENERGY MANAGEMENT during approach at CDG

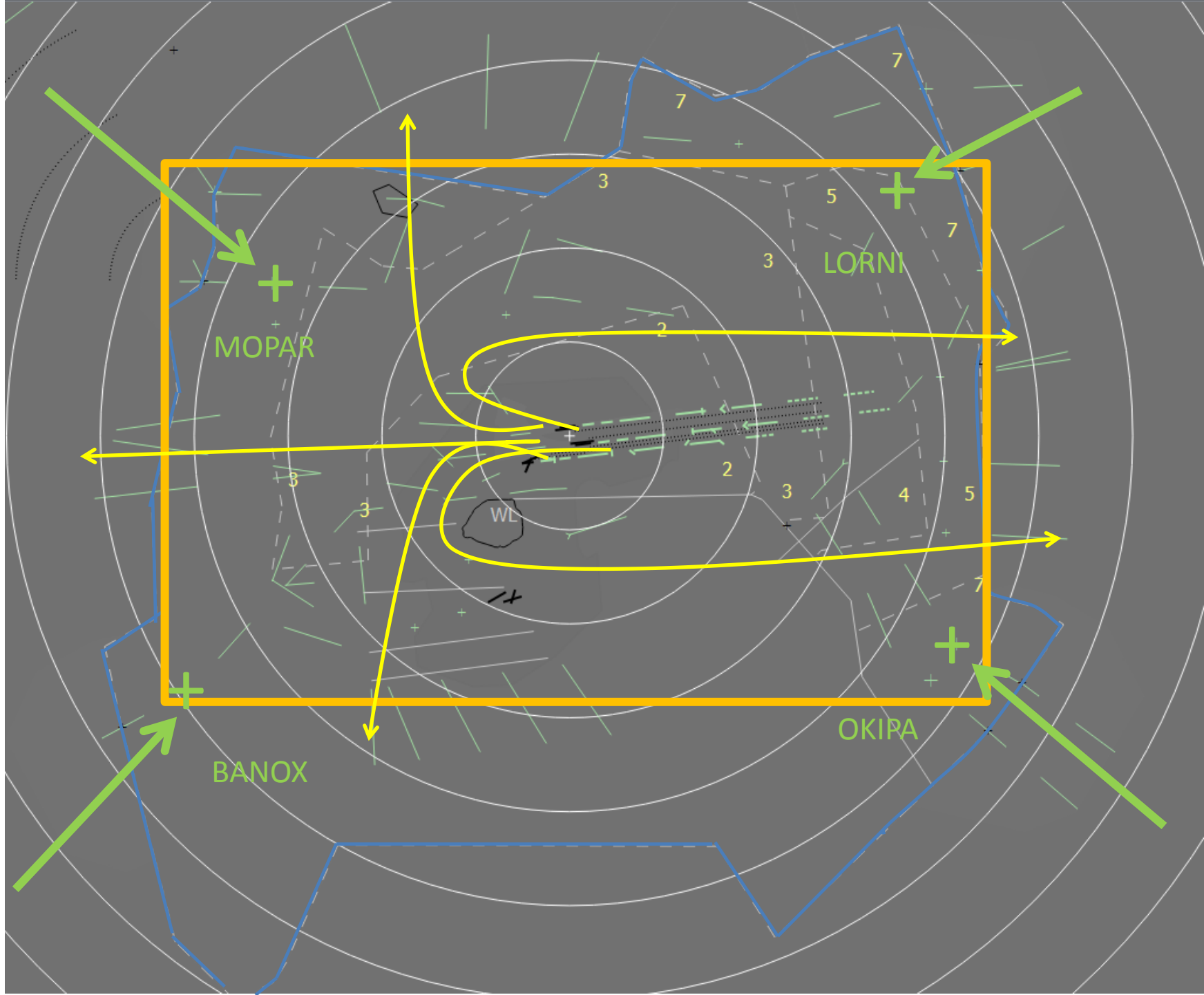
BIOL Cécile – Deputy Head – Safety Dpt
AUGER Emilie – Deputy Head – Safety Dpt
VINCENT Gaël – Deputy Head – Ops Dpt

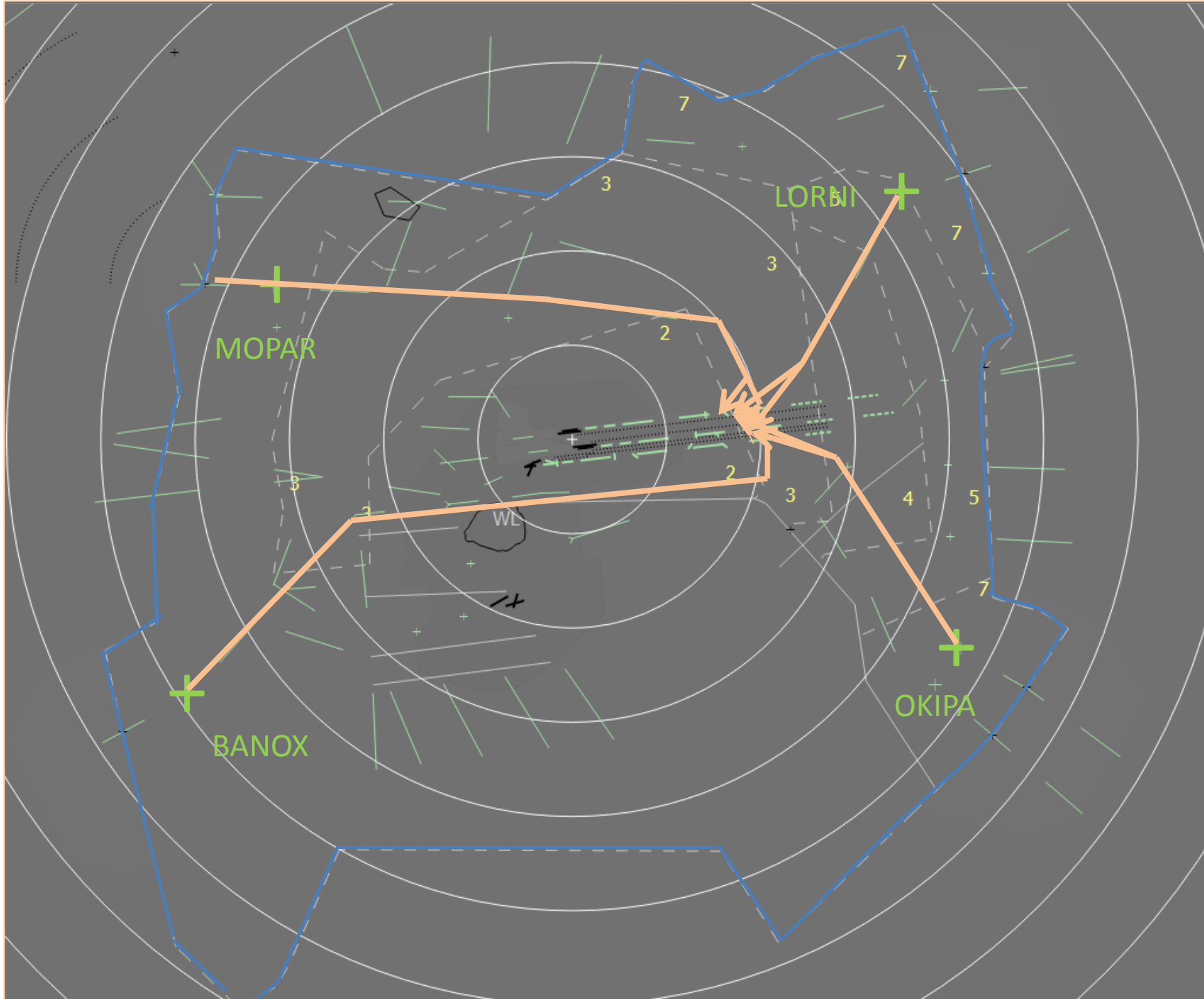


OUR AIRSPACE











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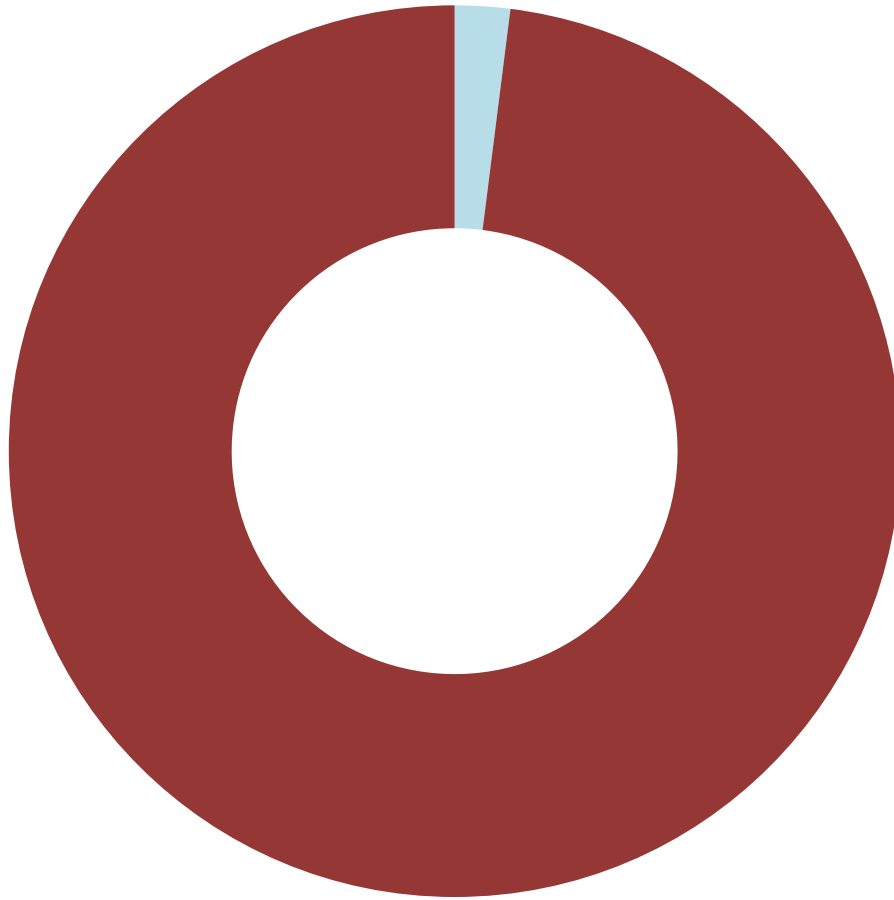
ENERGY MANAGEMENT during Initial Approach



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During flight cruise



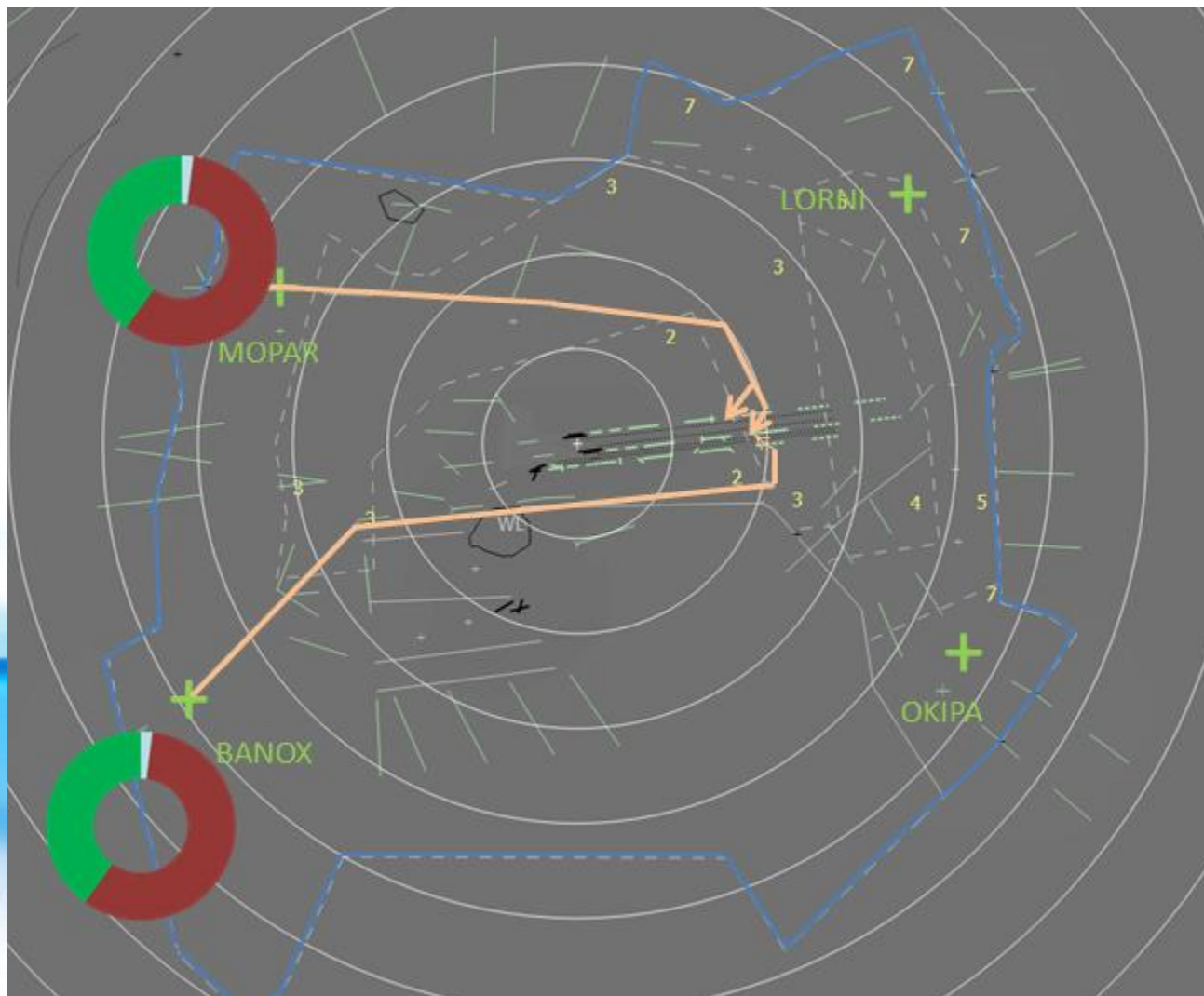
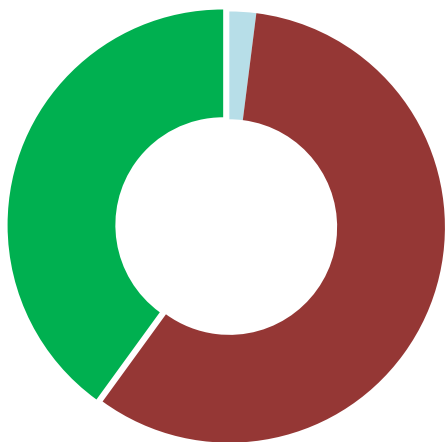
- minimale energy
- energy to be consumed
- energy consumed



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« Downwind » arrivals

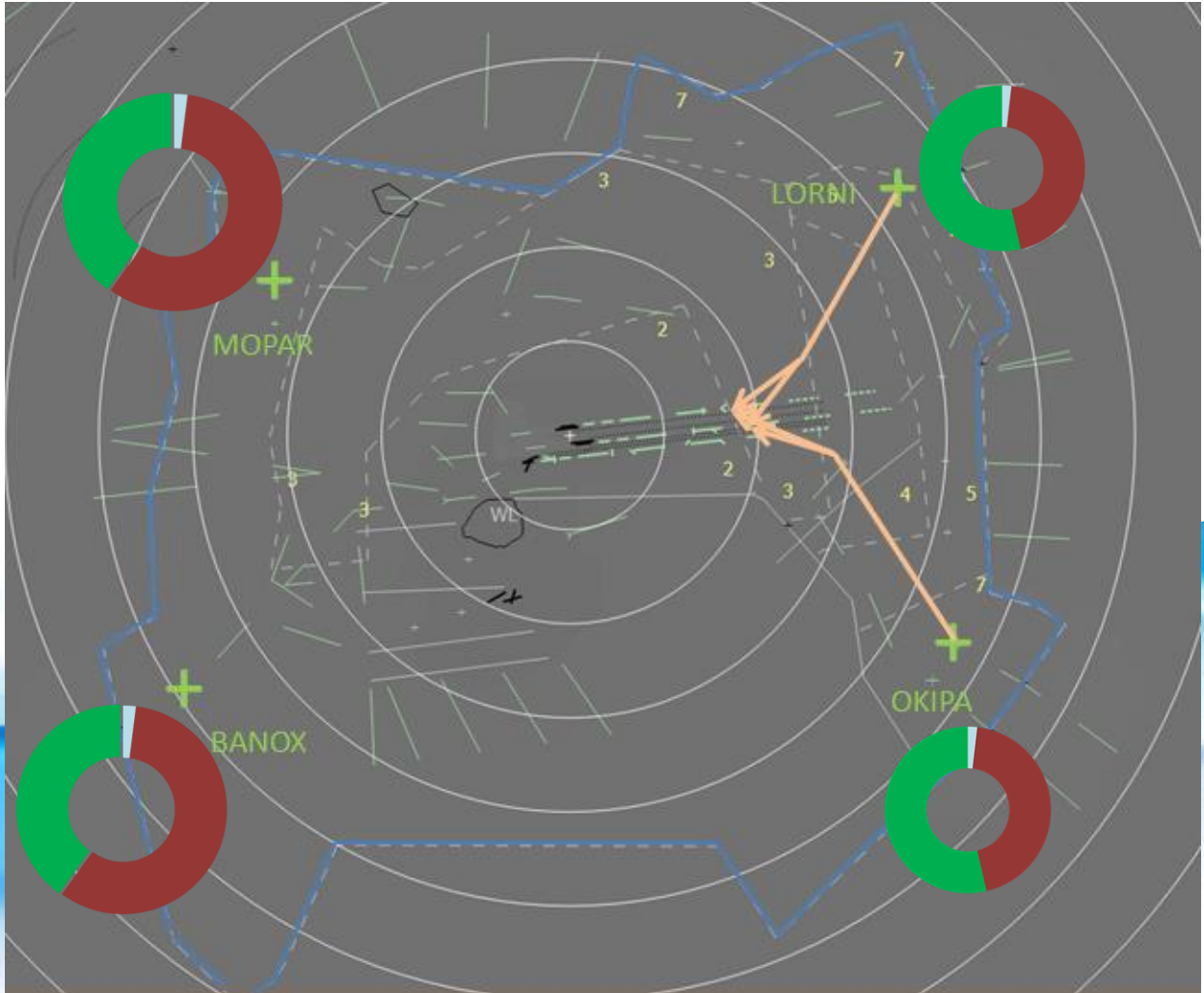
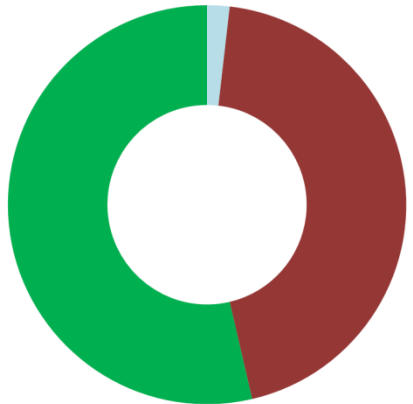




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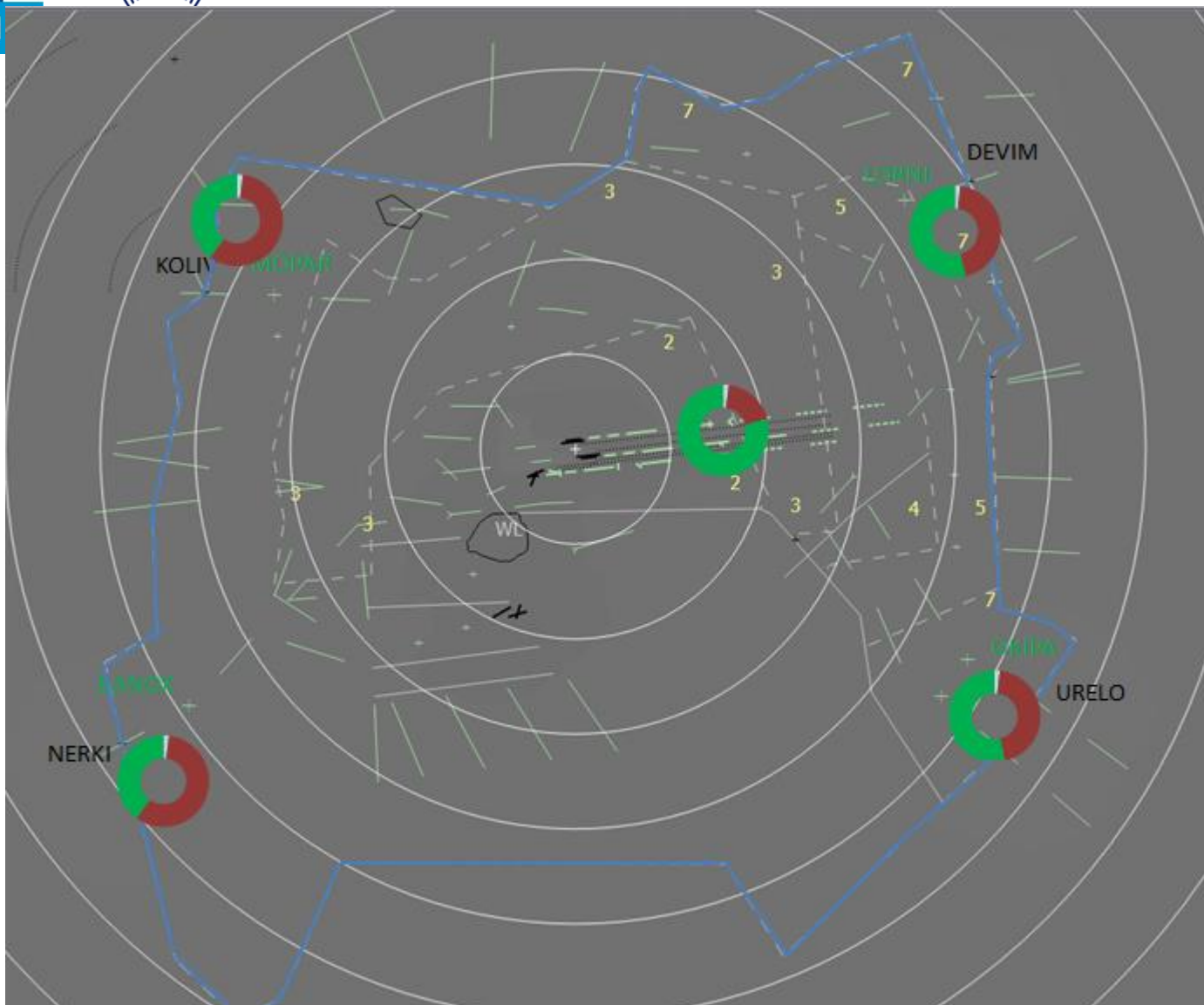


« Base leg » arrivals





Glide interception





the example of OKIPA 5W arrival

Respect of constraints at entry points



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COULOMMIERS

CLM 112.9
Ch 76 X

HLDG OKIPA

HAUTE / HIGH

48°36' 40.7" N 003° 33' 48.6" E

BASSE / LOW

FL 150/190
RAP 303° Gauche/Left
1 min 30 IAS 240 kt

FL 070/140
RAP 303° Gauche/Left
1 min IAS 230 kt

HLDG NANOP

HAUTE / HIGH

48°15' 43" N 004° 14' 22" E

BASSE / LOW

FL 150/280
RAP 319° Gauche/Left
1 min 30 IAS 265 kt

FL 070/140
RAP 319° Gauche/Left
1 min IAS 230 kt

Réacteurs/Jets FL 110
FL 070
Hélices/Propellers FL 100
FL 070

IAF

OKIPA

Réacteurs/Jets FL 120

Hélices/Propellers FL 100

URELO

Réacteurs/Jets FL 160 MAX
Hélices/Propellers FL 150 MAX
IAS 250 kt MAX

FF 301

NANOP

ERTIP

TROYES

TRO 116.0

Réacteurs/Jets FL 160 MAX
Hélices/Propellers FL 150 MAX
IAS 250 kt

EPINAL

EPL 113.0

TF 268°

EPL 8W-8P

73.0

ROLAMPONT

RLP 117.3

Ch 120 X

TF 292°

36.6

RLP 8W-8P

TINIL 8W

31.4

DJL 8W-8P

139°

41.9

TF 332°

19.6

TRO 8W-8P

18.1

TF 309°

8.1

TF 319°

10.2

139°

139°

TF 303°

303°

8.0

123°

123°

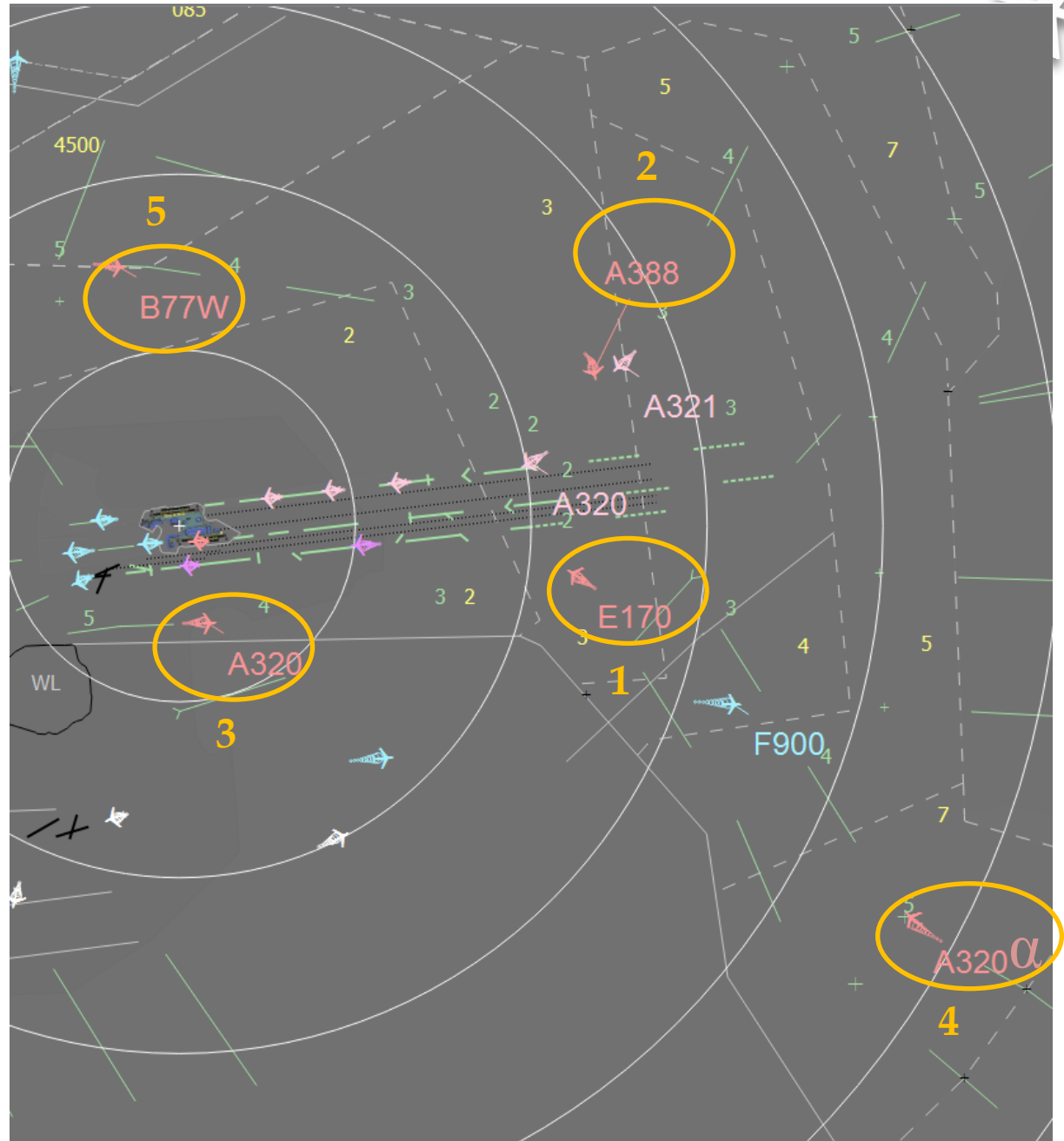
123°



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1st example

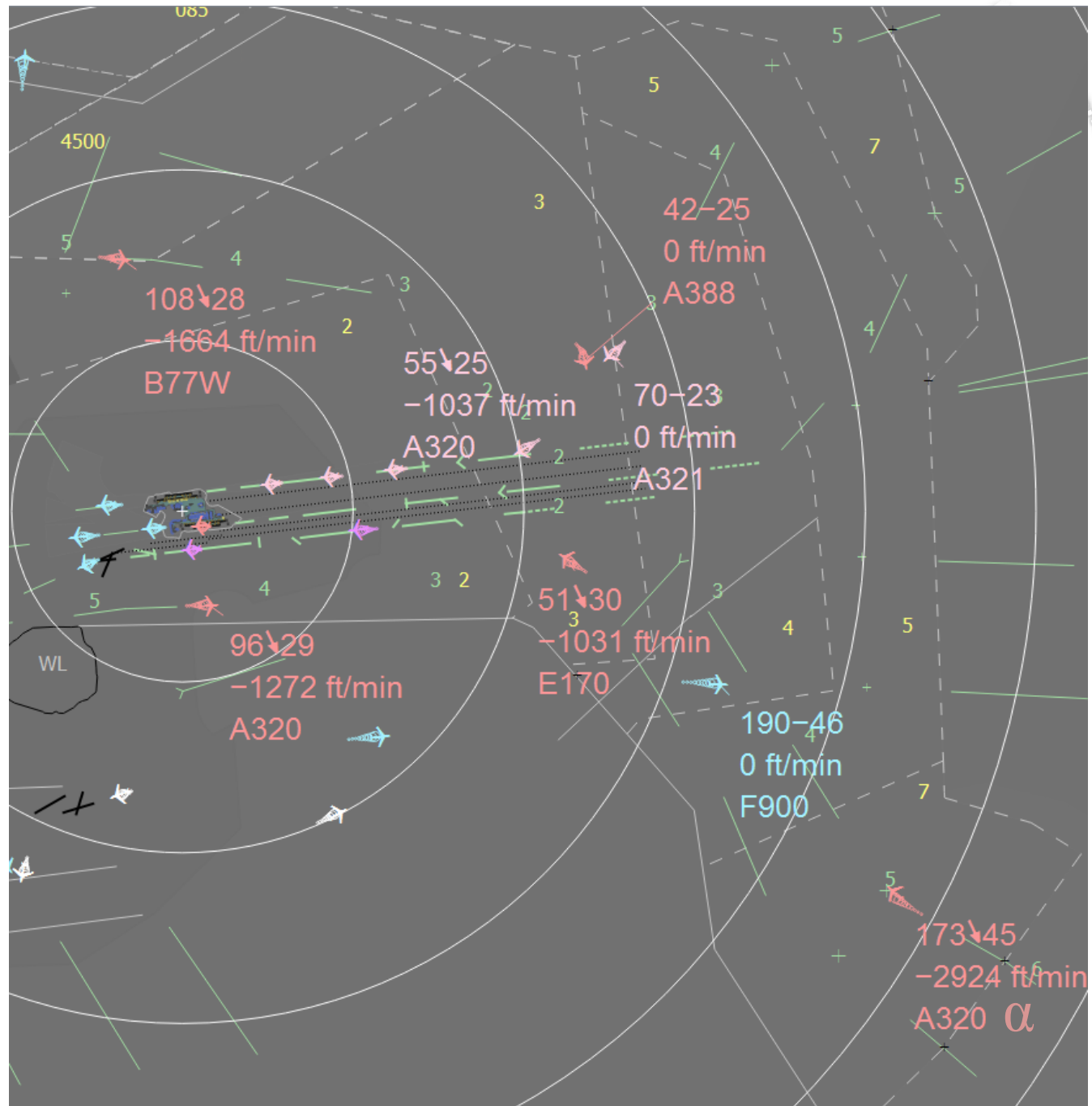




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1st example

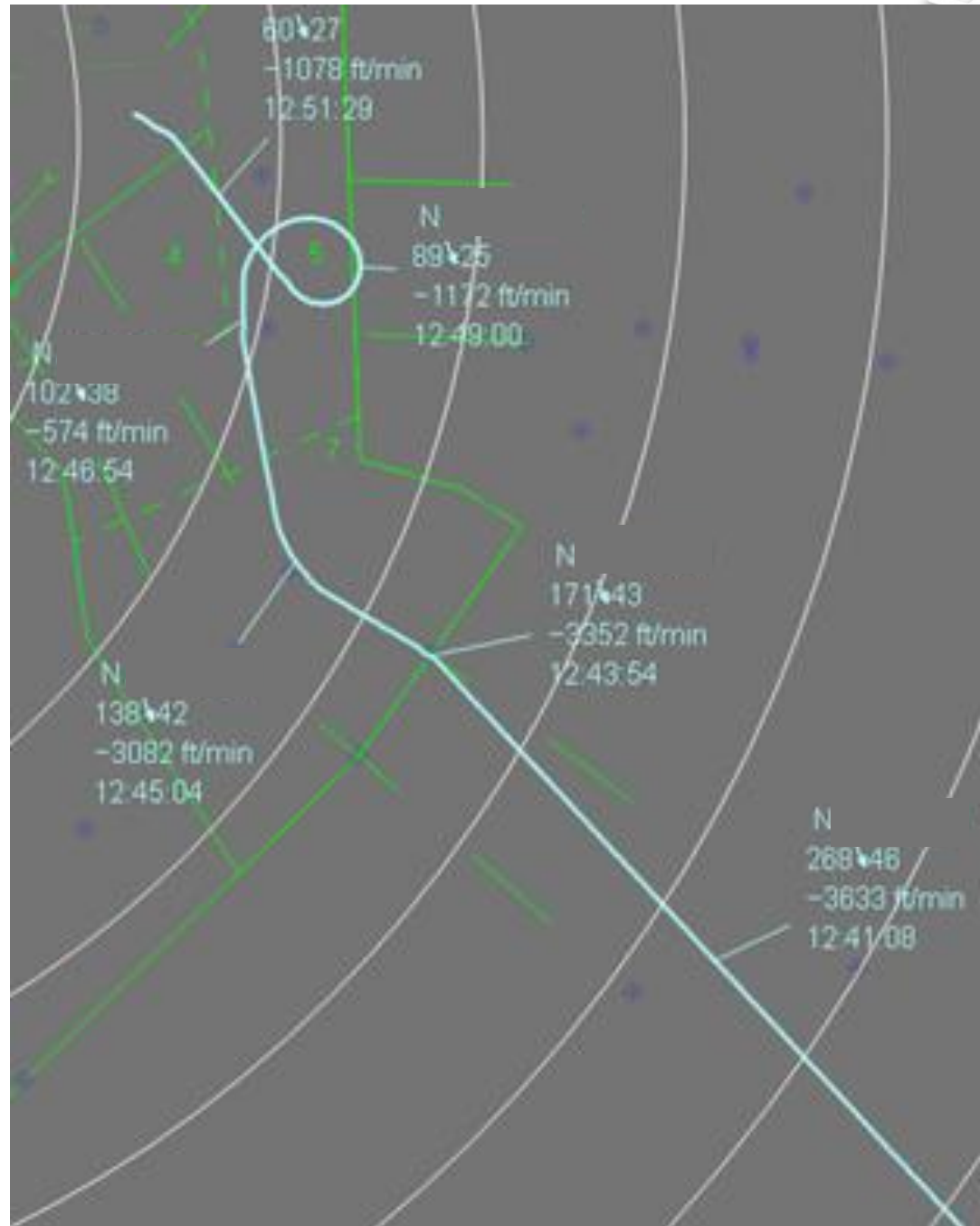




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2nd example



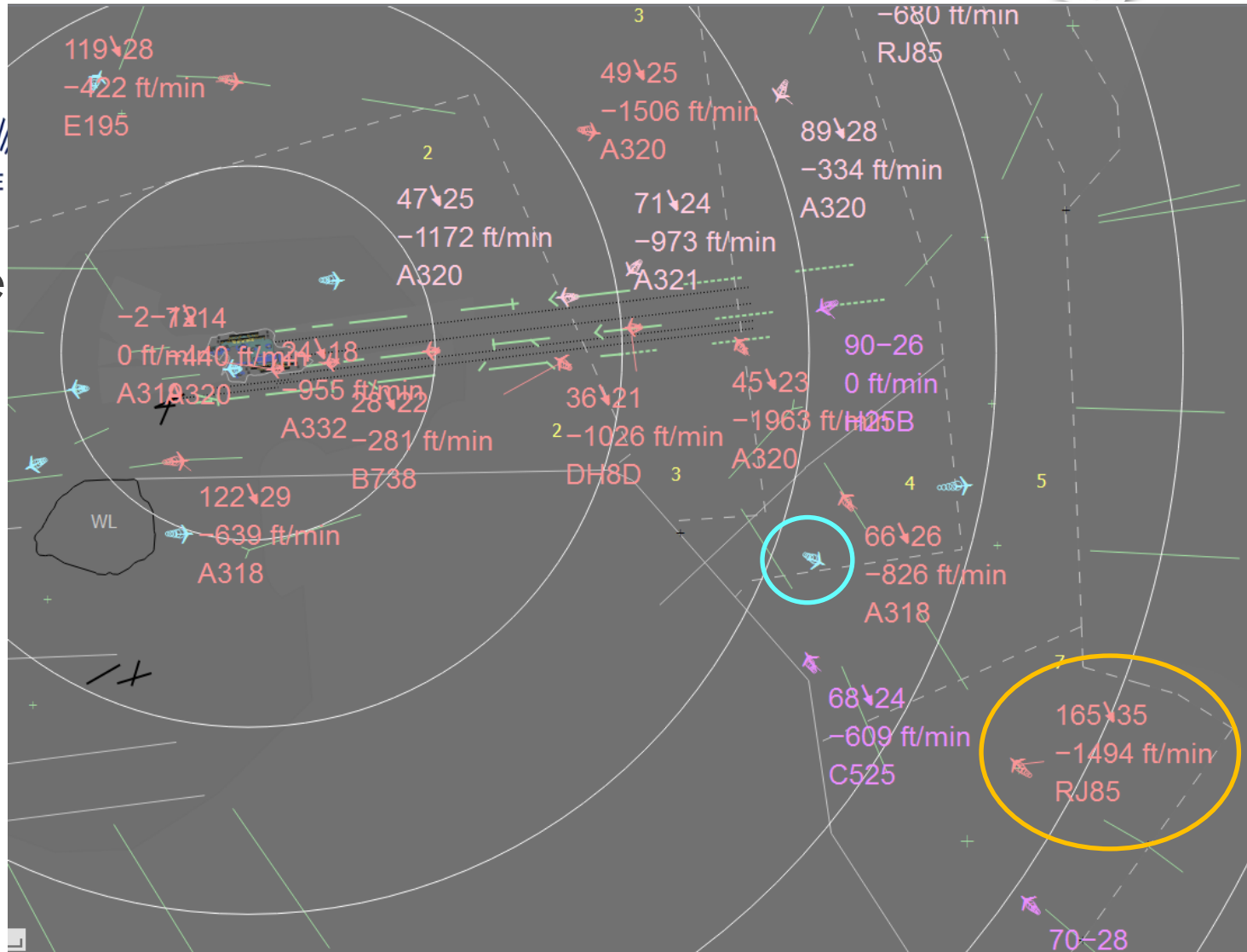


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GROUPE



3rd example





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GROUPE ADP



3rd example





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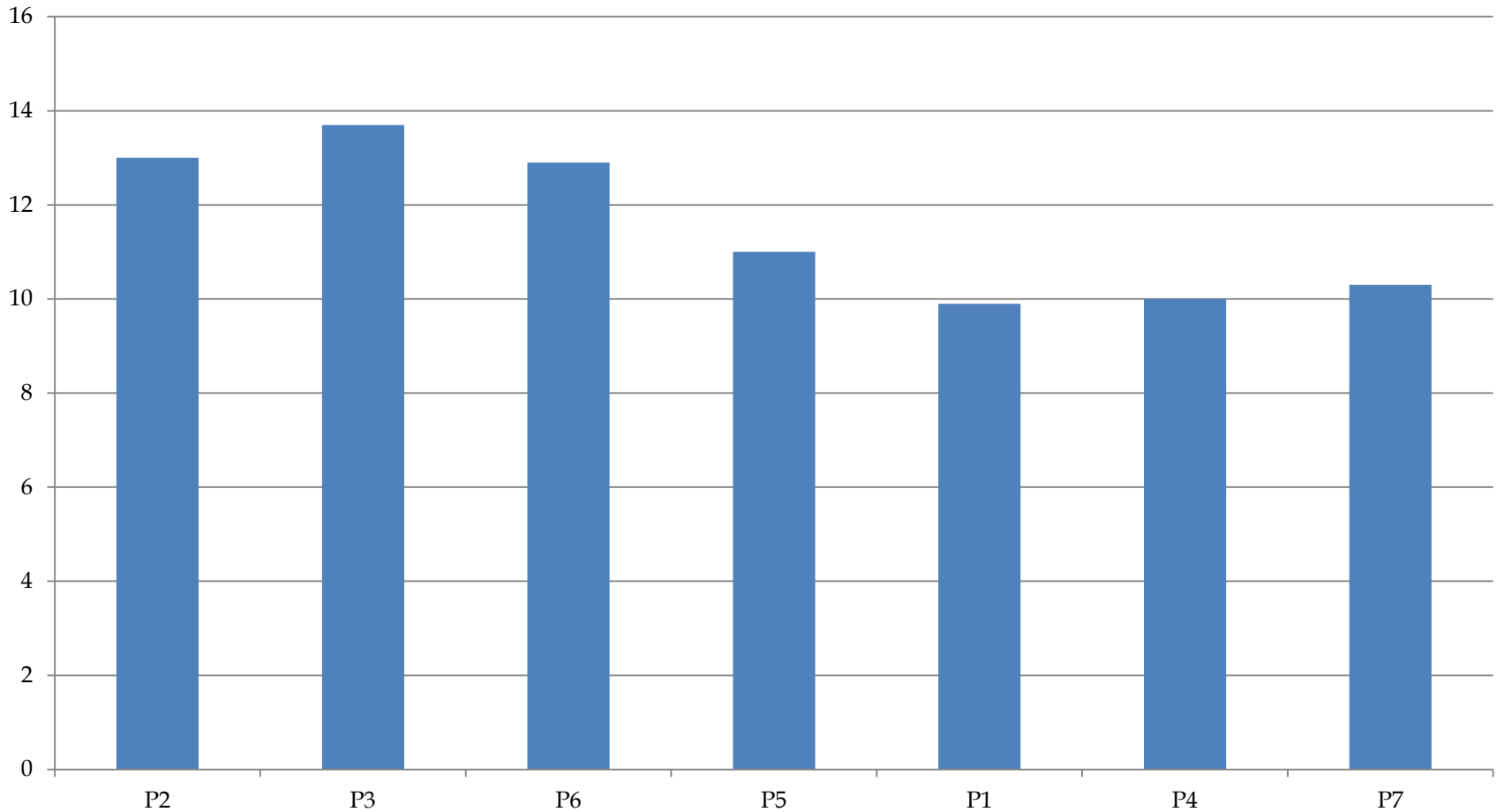




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Probability of too high arrivals by OKIPA depending on traffic peaks

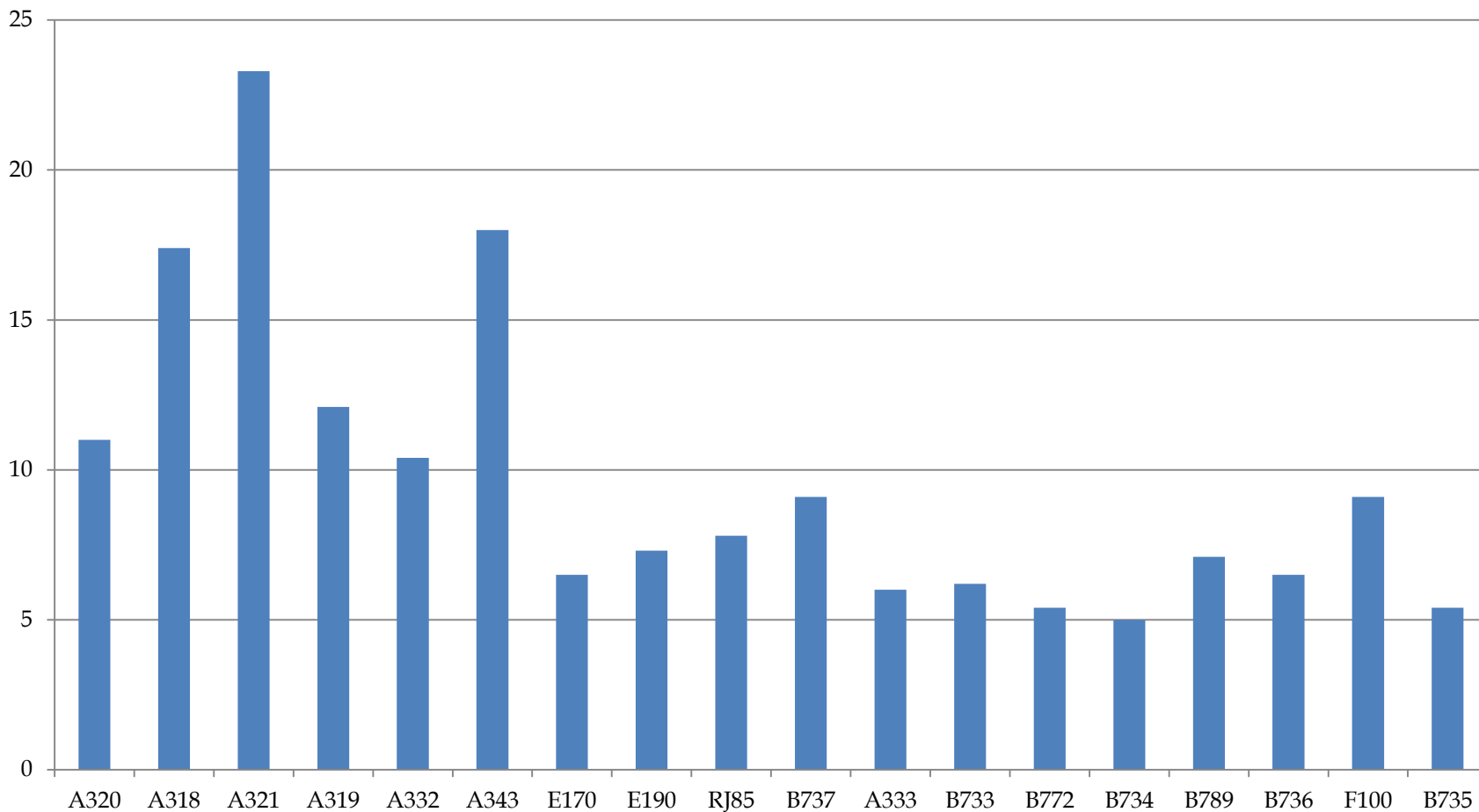




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Probability of too high arrivals by OKIPA according to aircraft type





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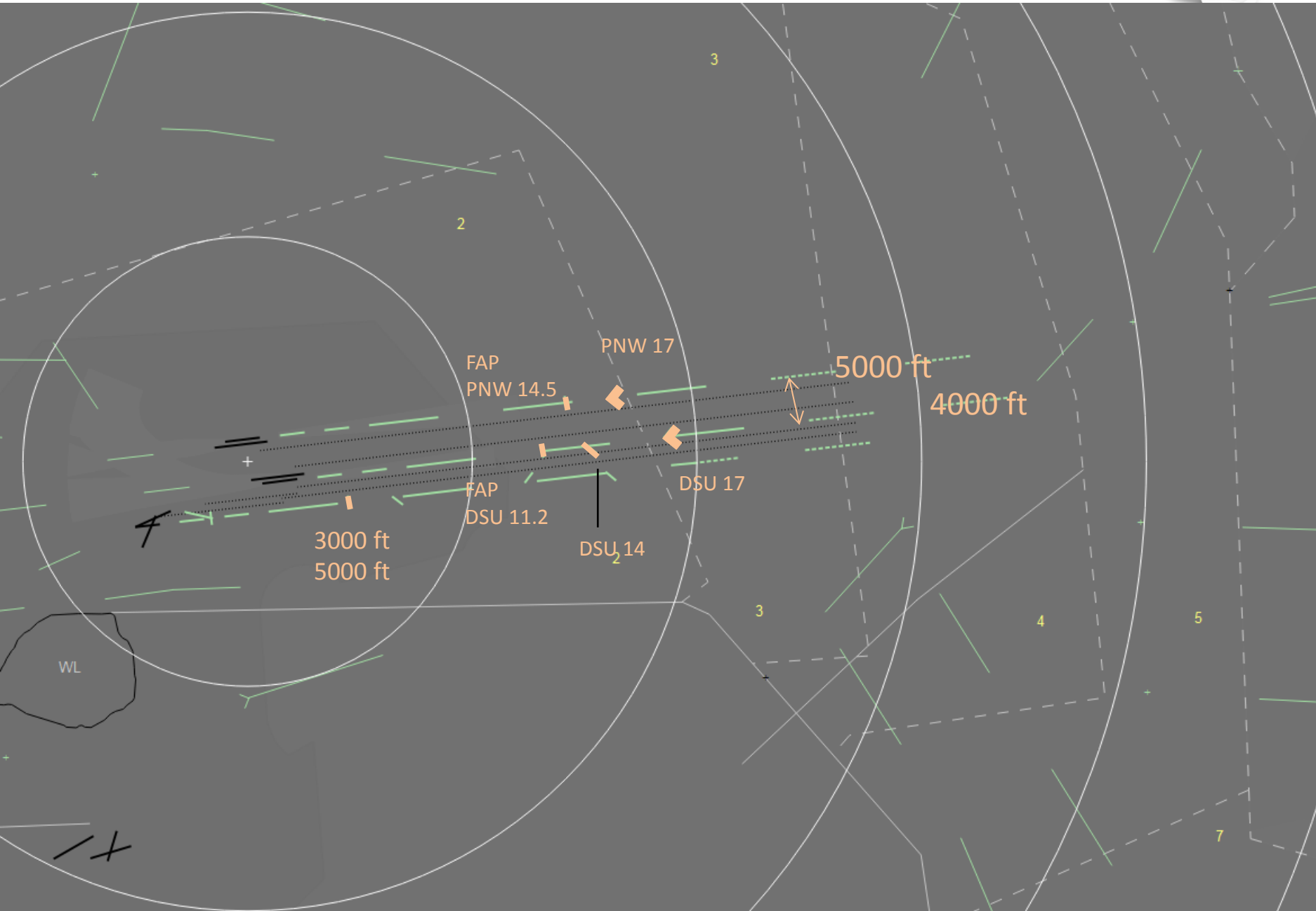


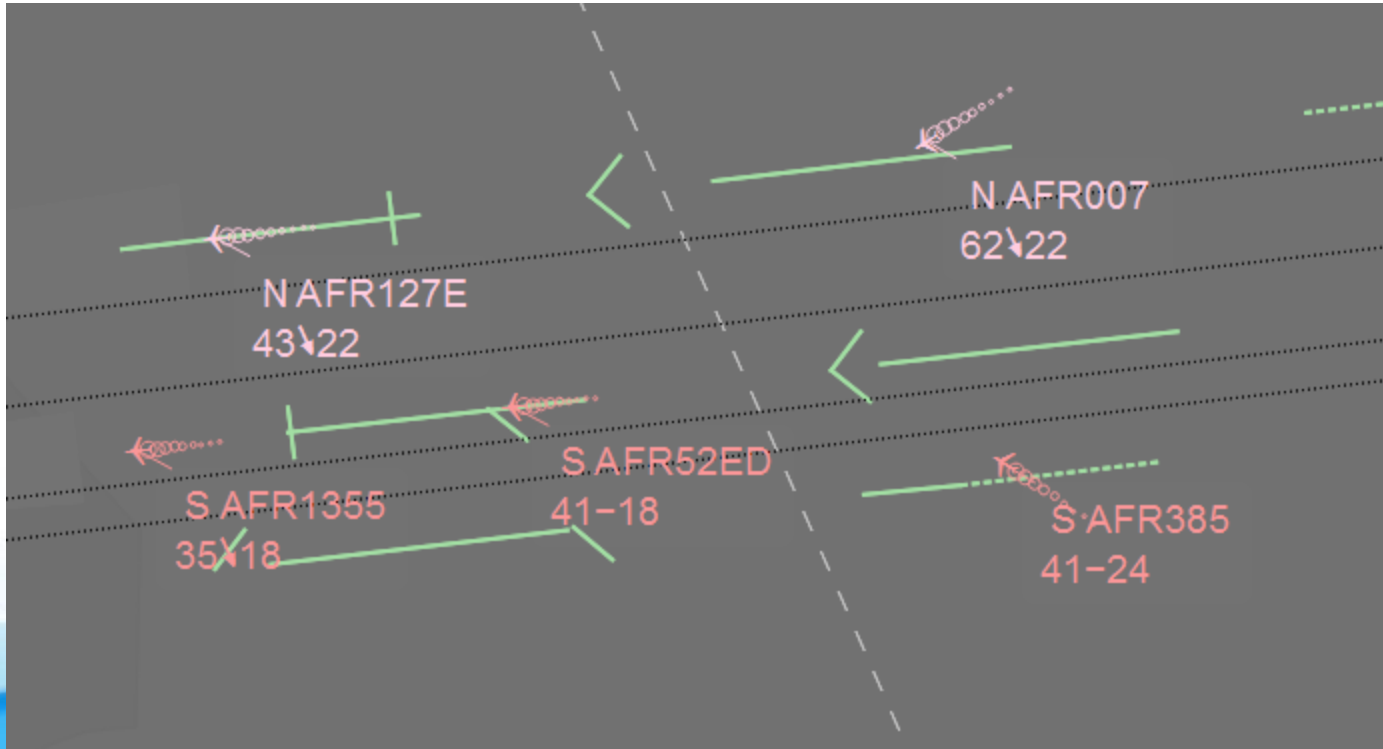
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ENERGY MANAGEMENT


during Intermediate Approach







WHAT DOES THAT IMPLY ?

- *If buddy not low early, then mate high late*
- [1300ft/min](#)
- *Staggered descent for « upper ILS »*
- *No track miles for « lower ILS »* 
- *Meaning of « short approach » ?*
- *Descent to platform altitude even if « cleared ILS »*



APPROCHE AUX INSTRUMENTS
Instrument approach

PARIS CHARLES DE GAULLE

CAT A B C D

INA RNAV (GNSS ou/ou DME/DME) OKIPA 5W RWY 26L-26R-27L-27R

IRREQ - Voir / See AD 2 LFPG IAC COM 01

VAR
0°
(15)

ALT MNM 25 NM AS2 LFPG

VOR et DME requis
VOR and DME required

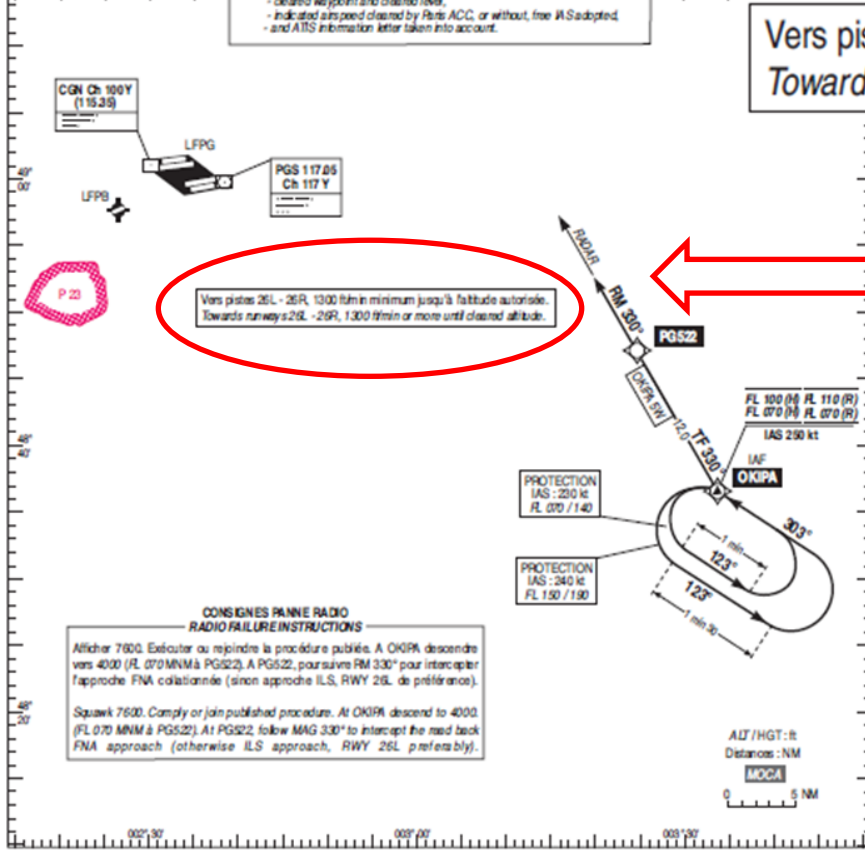
ALT MNM 25 NM OKIPA

1er contact avec DE GAULLE APP
On 1st contact with DE GAULLE APP

Le message pilote doit inclure seulement et obligatoirement :
- le waypoint autorisé et le niveau autorisé,
- la vitesse indiquée autorisée par Paris ACC, ou à défaut, IAS libre adoptée,
- et la lettre de l'information ATIS prise en compte.

Pilot message must include only and compulsarily:
- cleared waypoint and cleared level,
- indicated speed cleared by Paris ACC, or without, free IAS adopted,
- and ATIS information letter taken into account.

Vers pistes 26L - 26R, 1300 ft/min minimum jusqu'à l'altitude autorisée.
Towards runways 26L - 26R, 1300 ft/min or more until cleared altitude.



! WARNING

RWY 26 and 09:

1300 ft/min minimum



dg



N NAX8984
80-22
0 ft/min

2
N BEE269A
90-28
0 ft/min

N OMA131
69-22
-809 ft/min

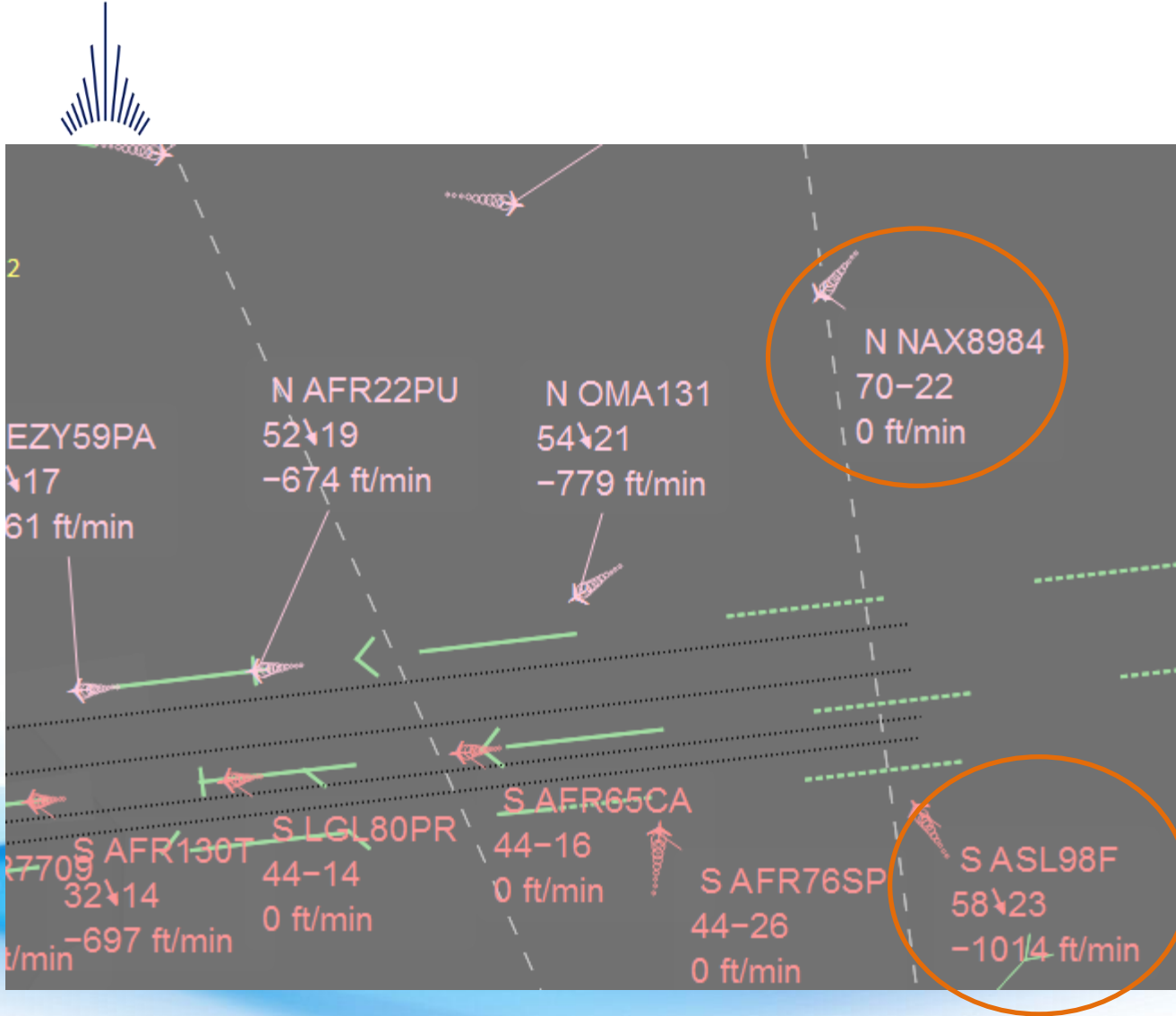
N AFR35BQ 35-18
N EZY59PA 54-19
N AFR22PU 63-22
-943 ft/min
0 ft/min
-586 ft/min

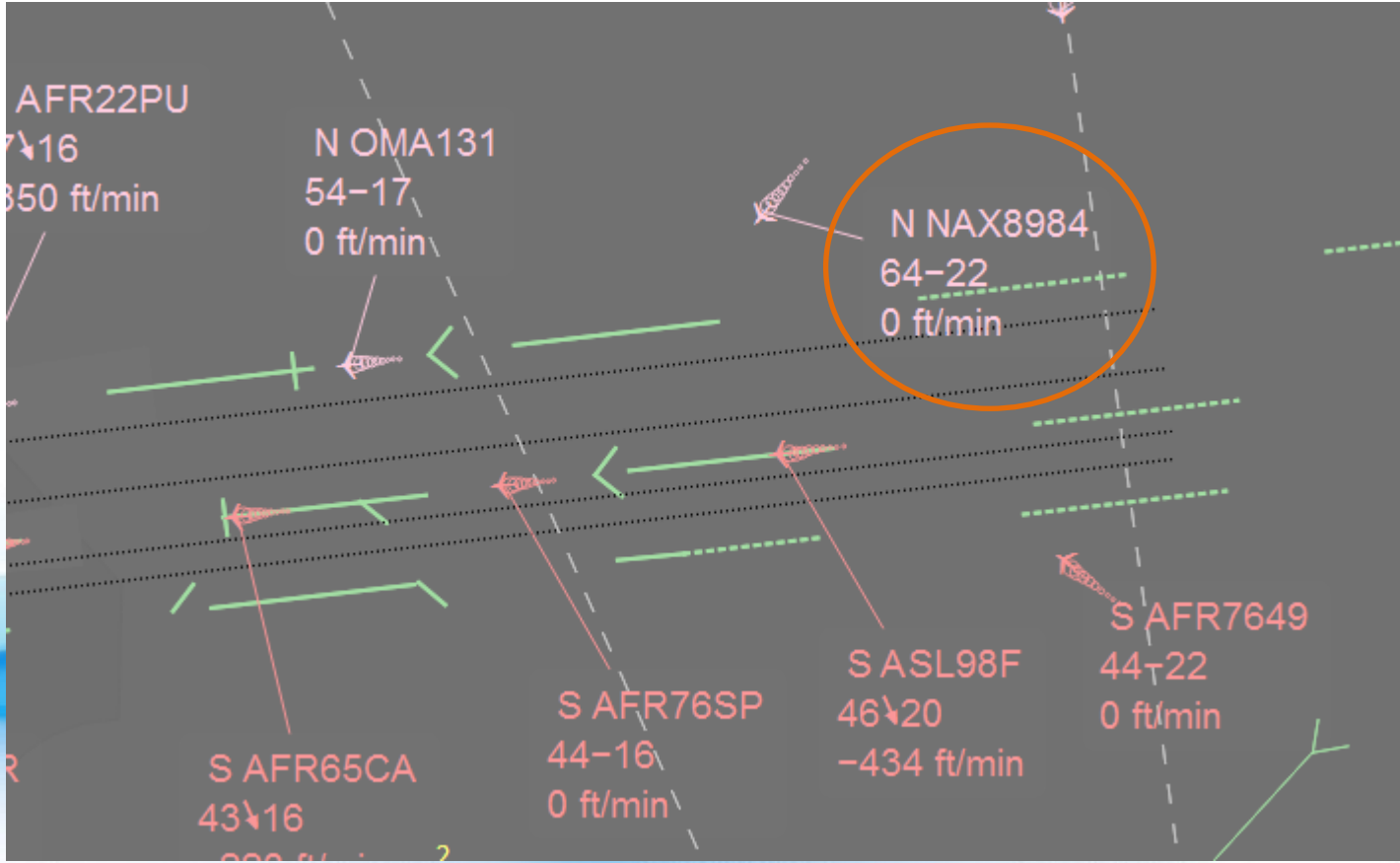
S AFR180J 35-14
S AFR7709 36-14
S AFR130T 44-14
S LGL80PR 44-16
-744 ft/min
0 ft/min
0 ft/min

S AFR65CA
44-26
-199 ft/min

3
S AFR76SP
63-28
-1992 ft/min

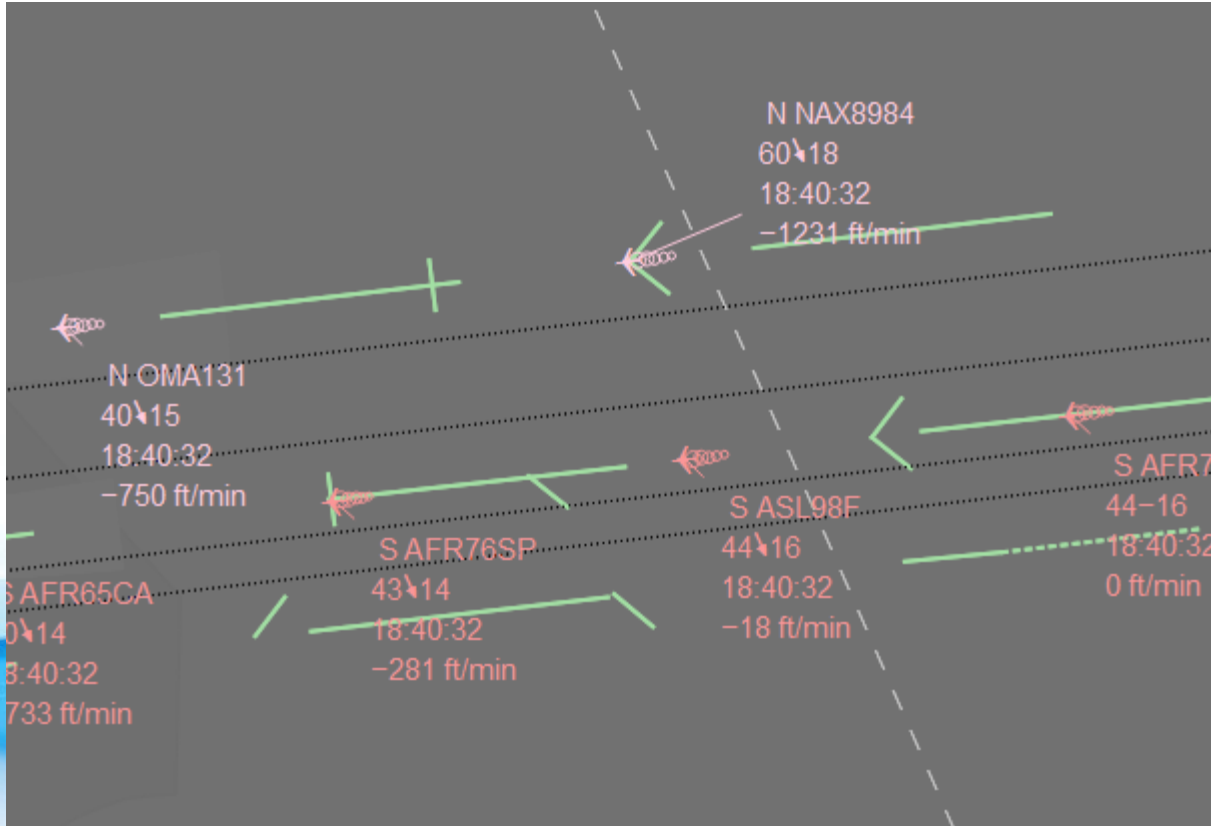
S ASL98
70-24
0 ft/min







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Speed



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