



Temporary Airspace Allocation TAA & setting the scene for Egyptian Civil/Military Cooperation

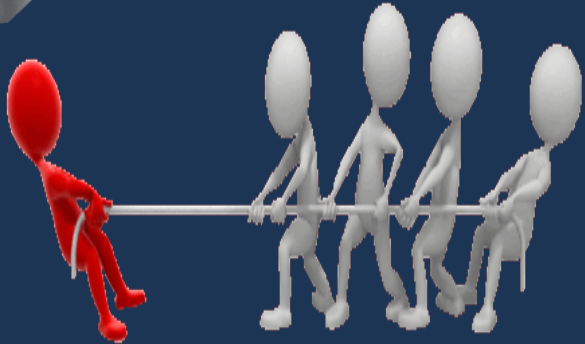
ICAO MID civil/military cooperation seminar/workshop

Jeddah, KSA, 16-19 sept. 2012

civil/military cooperation was



win



lose

therefore

Permanent airspace allocation was
been the best solution for safety



civil/military cooperation now



win



win

therefore

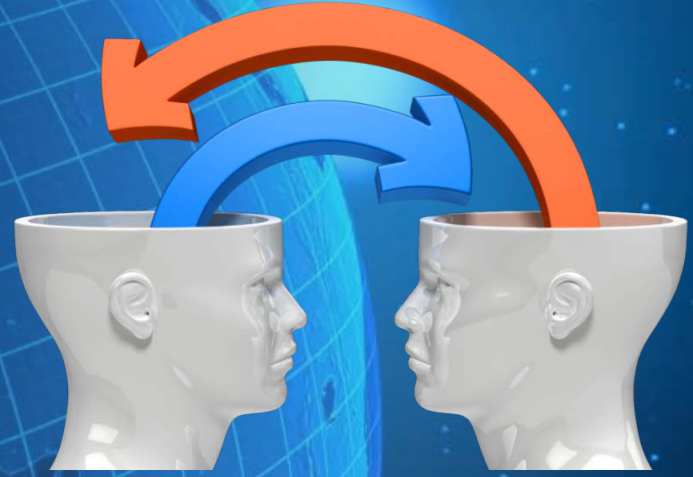
Temporary airspace allocation **TAA** is the best solution



Why today win to win



Solving conflict demands between civil & military



therefore

Temporary airspace allocation (TAA) Is the best solution for safety and flight economics issues



Military demands:

Military flying operations constitute a significant and important proportion of total airspace use. Therefore, the military authorities have established their own **"Operational Air Traffic" (OAT)** Services in parallel with the **"General Air Traffic" (GAT)** Services in order to provide for their specialised operations such as air combat training, low-level missions, in-flight refuelling and high-energy flying activities which are incompatible with the normal application of the ICAO Rules of the air and air traffic services procedures.



military aviation seeks:

- freedom to operate in IMC/VMC at any time in all areas of the airspace;
- special handling - in particular for priority flights and for time-critical missions, but also for military aircraft not fully equipped to the civil standard;
- airspace restrictions for non flight-related activities such as protection of areas of national interest, gunnery, missile firing, etc....
- to retain the possibility of operating uncontrolled VFR flights, including in "Controlled" airspace;



Commercial air transport demands:

In respect of airspace organisation,
the airline community seeks :

- ❖ Seamless services within airspace considered as a continuum;
- ❖ Simple and unambiguous rules, easy to implement and to follow;
- ❖ Freedom of movement to follow preferred and flexible flight profiles with minimum constraints;
- ❖ optimisation of airspace structure and legislation;
- ❖ Upper/Lower Airspace classification should be harmonised as soon as possible in order to enable the traffic to be operated within the airspace.



Flexible use of airspace)FUA) is The best solution



The FUA Concept uses airspace structures that are particularly suited for temporary allocation and/or utilisation.

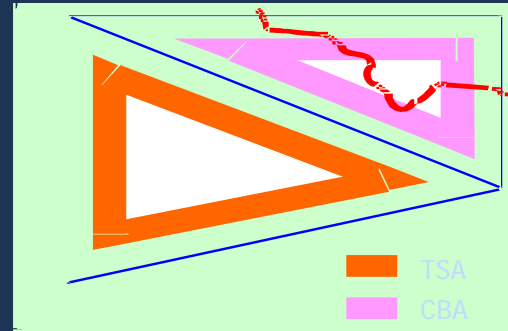


The Temporary Airspace Allocation (TAA):

Process consists in the allocation process of an airspace of defined dimensions assigned for the **temporary reservation (TRA/TSA)** or restriction (D/R) and identified more generally as and 'AMC-manageable' area.

TAA may be:

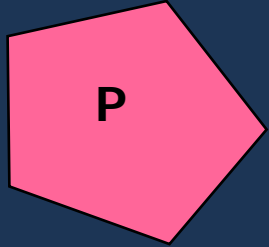
- **TRA** : temporary reserved area
- **TSA** : temporary segregated area
- **CBA** : cross-border area as TRAs or TSAs established over international boundaries



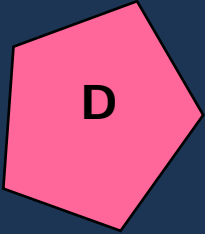
Non-FUA

vs.

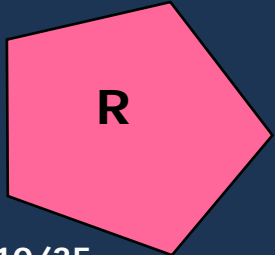
FUA



PROHIBITED



DANGER



RESTRICTED

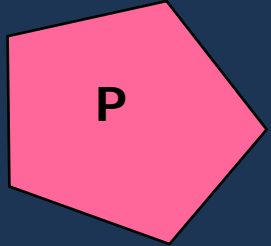
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Non-FUA

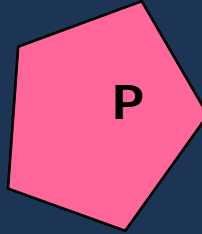
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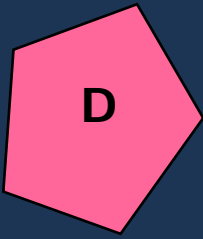


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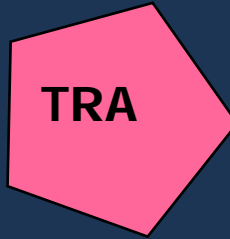


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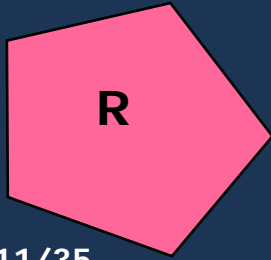


DANGER

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TEMPORARY
RESERVED
AREA



RESTRICTED

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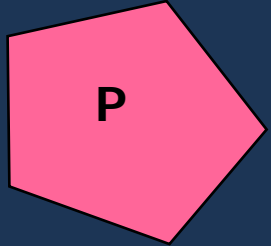
TEMPORARY
RELEASED AS
SEGREGATED
SOON AS
ACTIVITY STOPS
AREA



Non-FUA

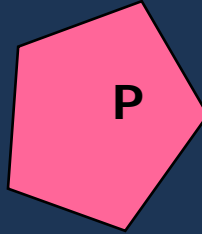
vs.

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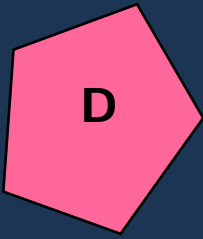


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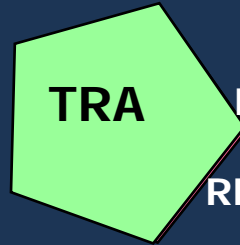


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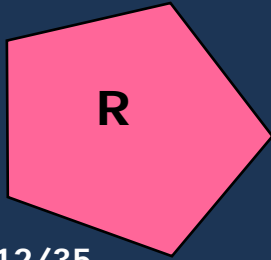


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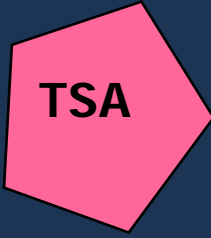


CROSSING
POSSIBLE WHEN
ACTIVE /
RELEASED AS SOON
AS ACTIVITY
STOPS



RESTRICTED

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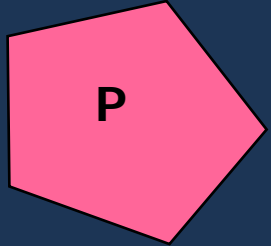
TEMPORARY
SEGREGATED
AREA



Non-FUA

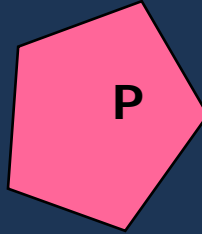
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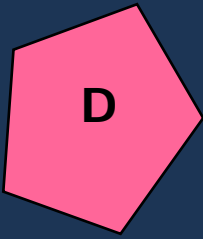


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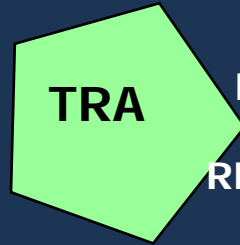


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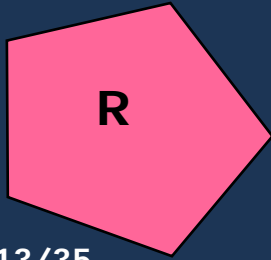


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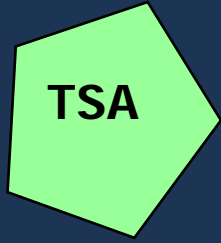


CROSSING
POSSIBLE WHEN
ACTIVE /
RELEASED AS SOON
AS ACTIVITY
STOPS



RESTRICTED

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RELEASED AS
SOON AS
ACTIVITY STOPS



How we can achieve TAA



Existence of airspace management ASM has become inevitable

So, you Must choose



ASM levels:

Strategic Level

Pre-tactical Level

Tactical Level

ASM level1

- Establishment of pre-determined airspace structures
- Definition and review of national airspace policy and organisation
- **High-Level Civil / Military Airspace Policy Body**

ASM level2

- Day-to day airspace allocation according to user requirements
- **Joint Civil / Military Cell(AMC)**

ASM level3

- Real-time use of airspace allowing a safe separation between civil and military aircraft
- **Appropriate Civil / Military ATS Units**



Airspace Management Cell (AMC)

- ❖ *Joint Civil / Military Body*
- ❖ *Established by National Authority*
- ❖ *Allocates airspace identified as TRA, TSA, CBA or CDR*
- ❖ *Allocation decision notified by Airspace Use Plan (AUP)*

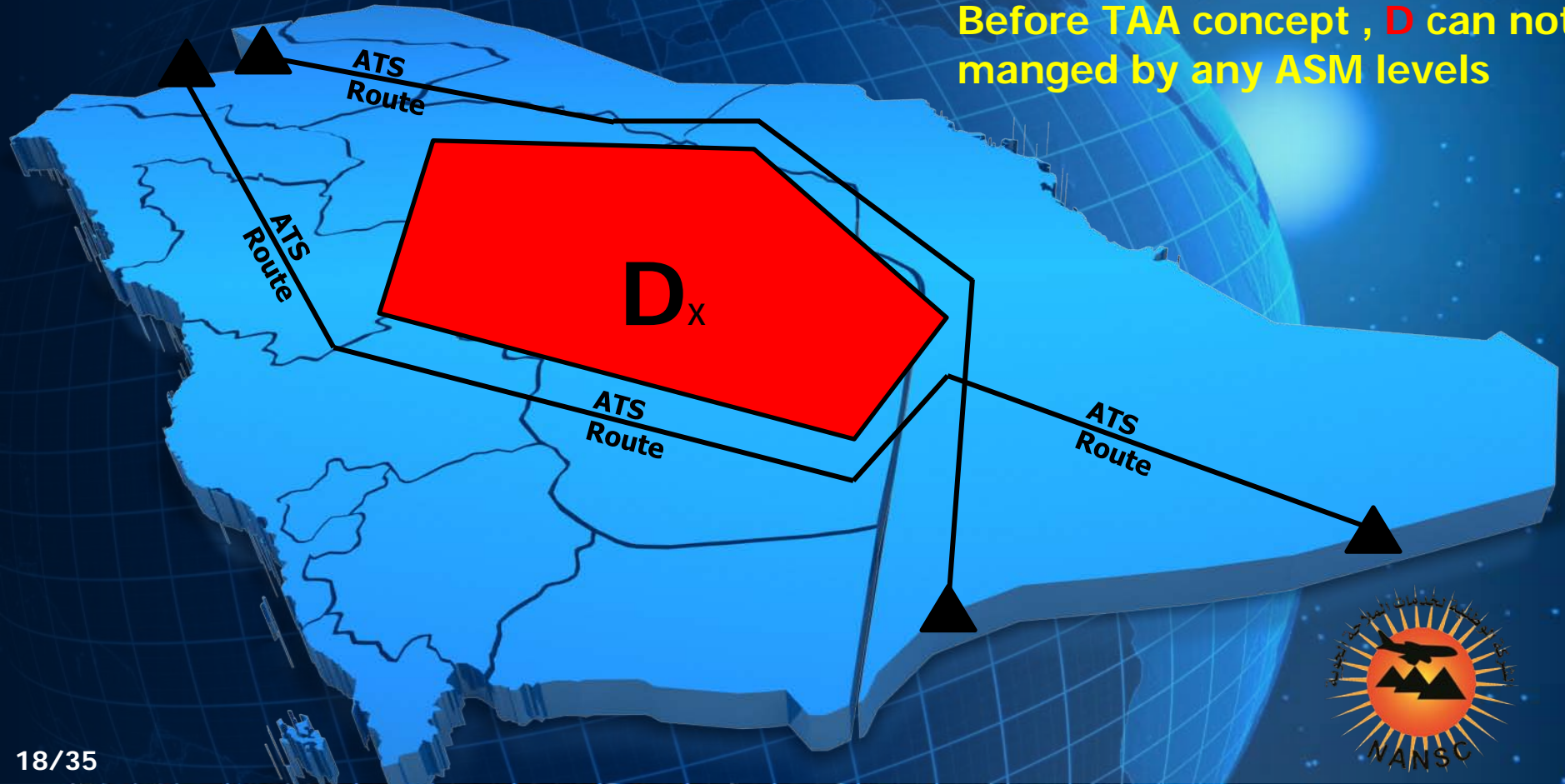


TAA in practice.....



TAA in practice.....

Before TAA concept , **D** can not manged by any ASM levels



TAA in practice.....

TAA exist ,D may be published as TRA

ASM LEVEL 1

TRA_x

ATS
Route

ATS
Route

ATS
Route

ATS
Route

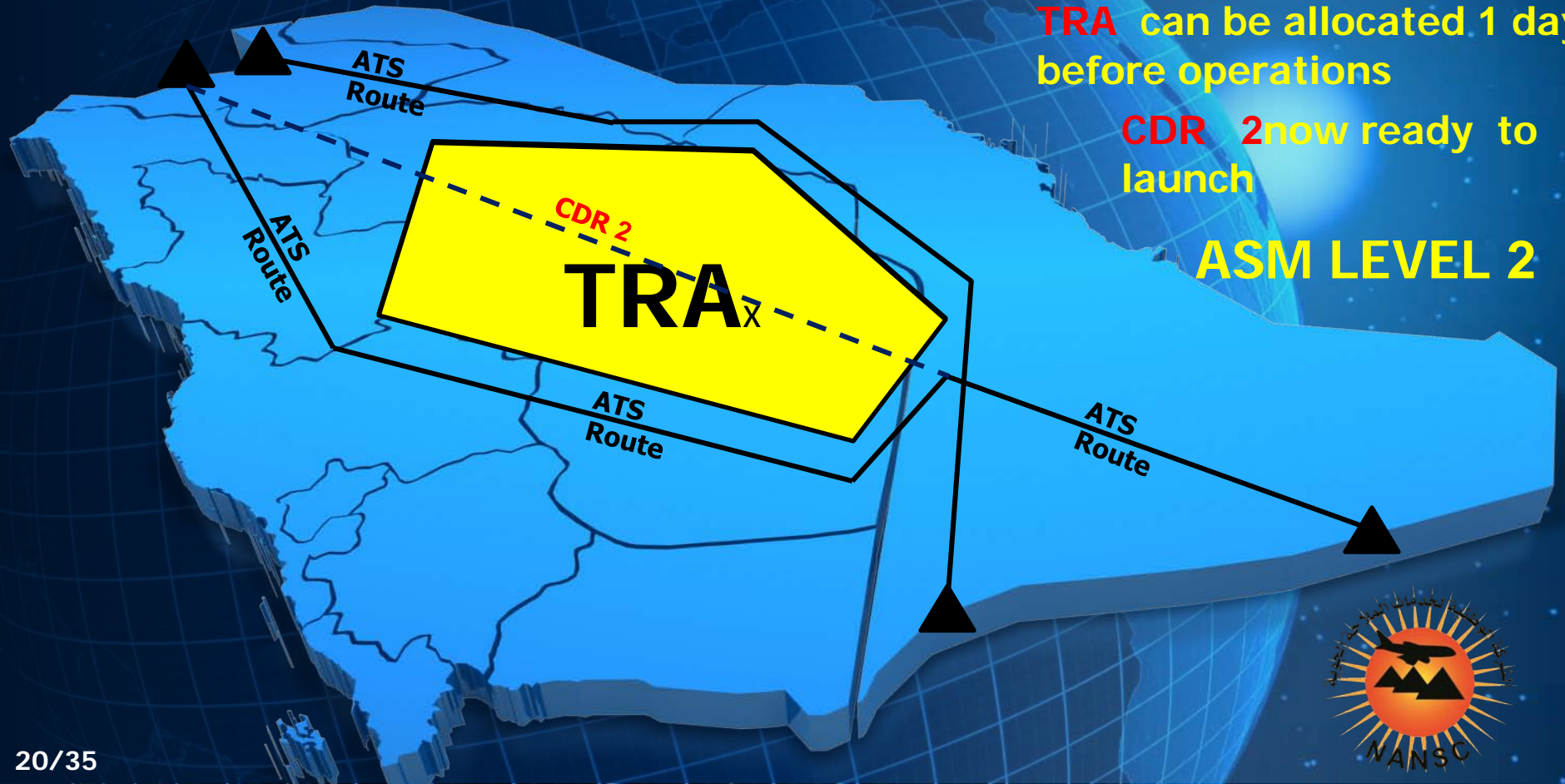


TAA in practice.....

TRA can be allocated 1 day before operations

CDR 2 now ready to launch

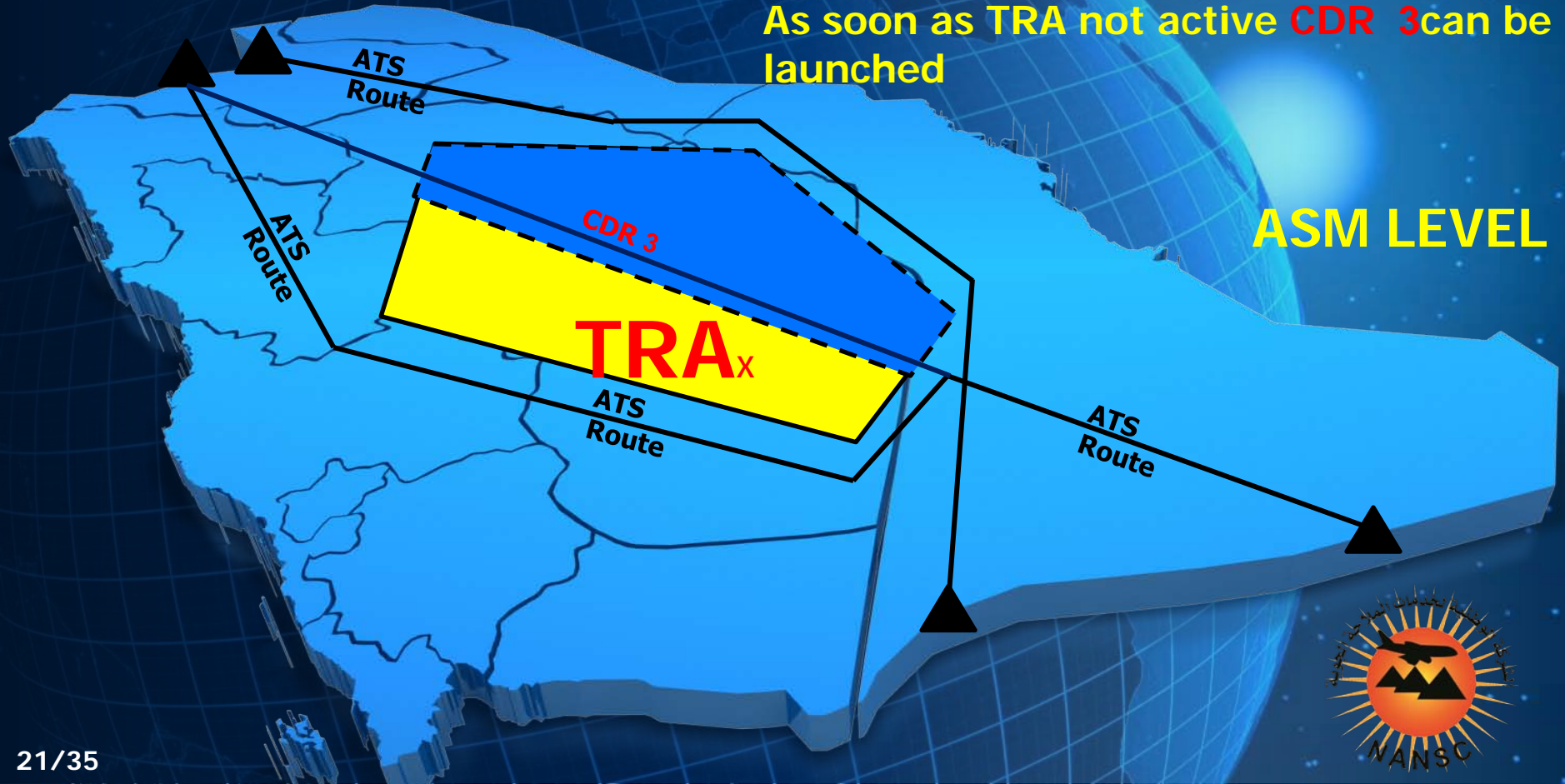
ASM LEVEL 2



TAA in practice.....

As soon as TRA not active **CDR 3** can be launched

ASM LEVEL 3



Criteria and Planning Consideration for the Establishment of the TAA Process 1/4

Airspace request

Validation of activities requiring Airspace reservation/restriction

Potential hazard to participating, and non-participating. aircraft ?

NO



Prior Co-ordination required ?

NO

YES

RCA

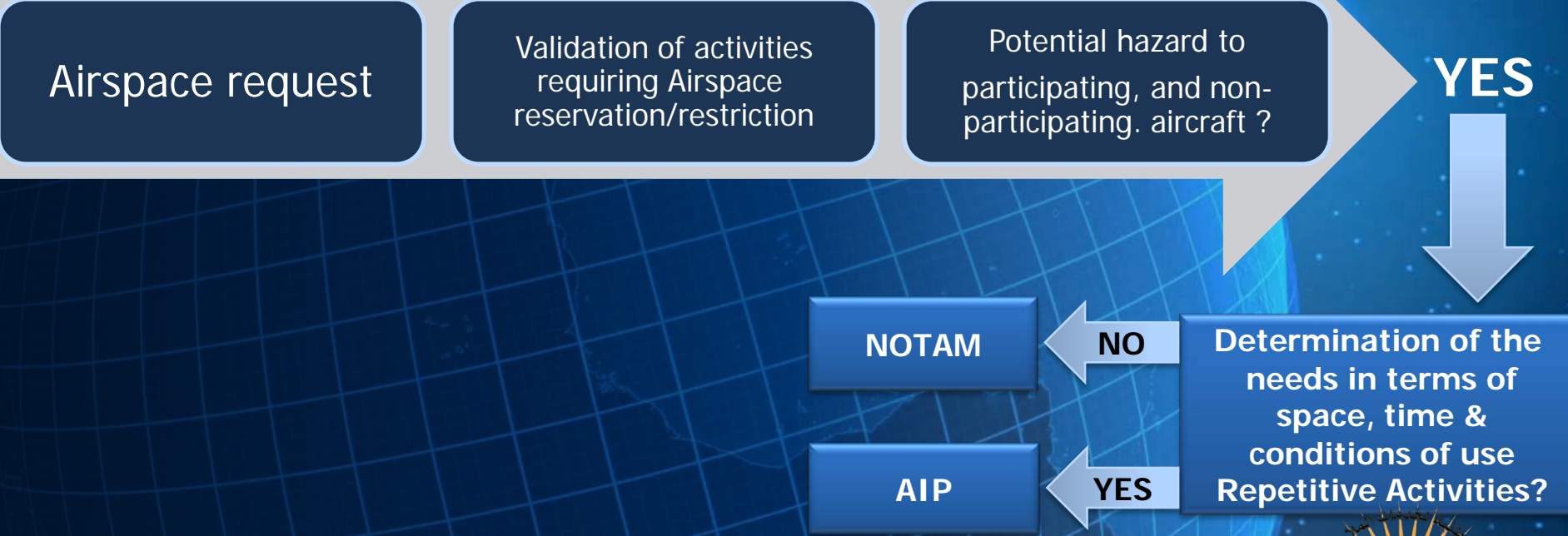
PCA

Joint use of airspace

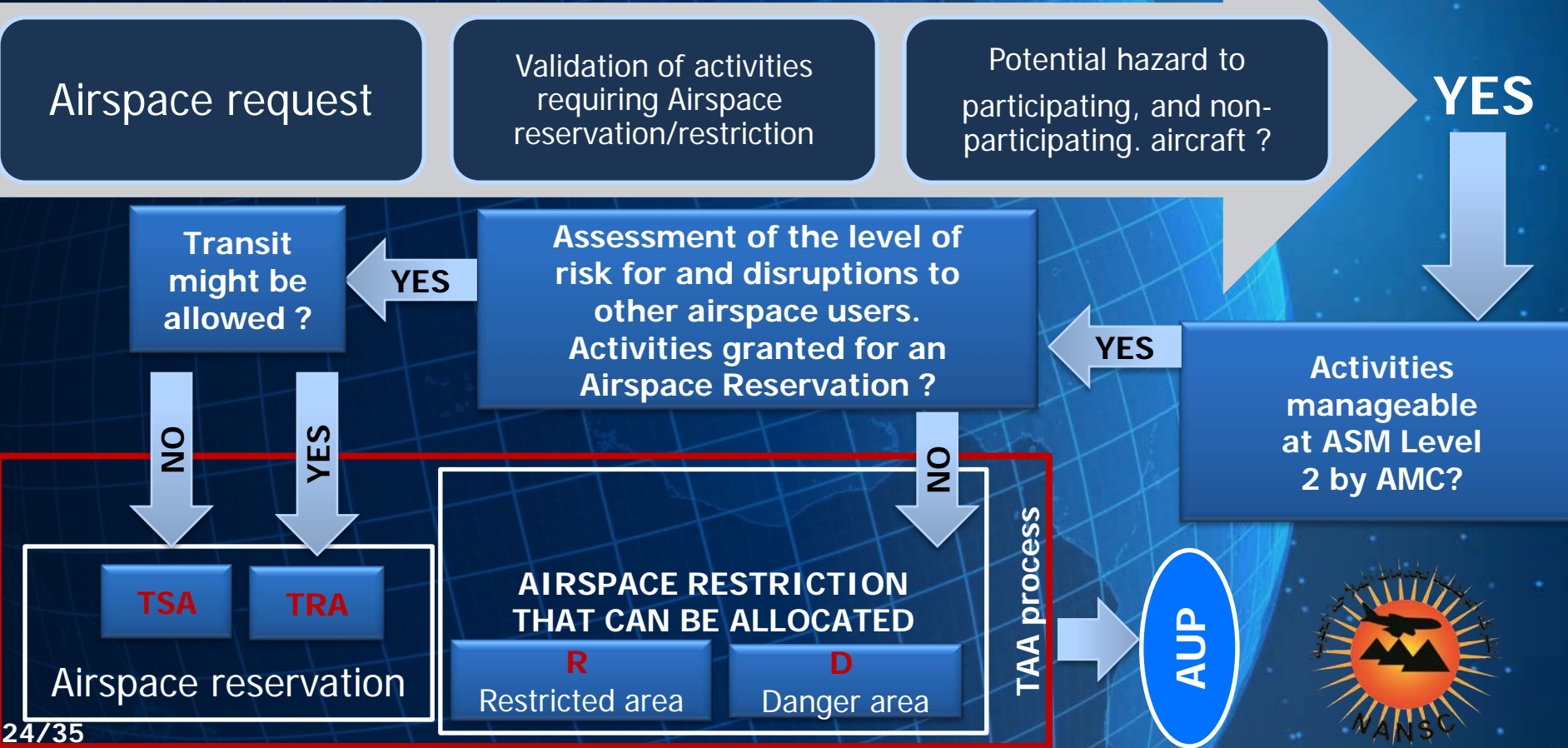
LOA



Criteria and Planning Consideration for the Establishment of the TAA Process2/4



Criteria and Planning Consideration for the Establishment of the TAA Process3/4



Criteria and Planning Consideration for the Establishment of the TAA Process4/4



Setting the scene for Egyptian Civil Military Cooperation



Egyptian civil / military commission:

- ❖ *solve airspace conflict demands.*
- ❖ *Discuss new airways proposal by civilian side and it's implementation possibilities.*
- ❖ *Discuss how to transit to FUA as well as apply TAA inside national airspace.*
- ❖ *Promulgate culture of civil / military cooperation generally and FUA specifically .*
- ❖ *Discuss all regional airways network requirements and possibility of it'S applications*
- ❖ *Discuss all international organizations / associations requirements ,also fleets requirements*



Egyptian civil / military achievements:

- ❖ Approved a lot of direct routes inside national airspace to save fuel and time also reduce emissions to meet regional requirements
- ❖ Successful organisation for Egyptian civil/military cooperation symposium organised in 2012 under cooperation with military side with a lot of positive outputs
- ❖ Solving a lot of conflict demands between civil and military side
- ❖ Setup a roadmap for future civil/military cooperation and transformation to FUA
- ❖ Cancel a lot of prohibited areas inside national airspace to facilitate traffic flow as well as facilitate landing and taking-off operations for Cairo Int. Airport



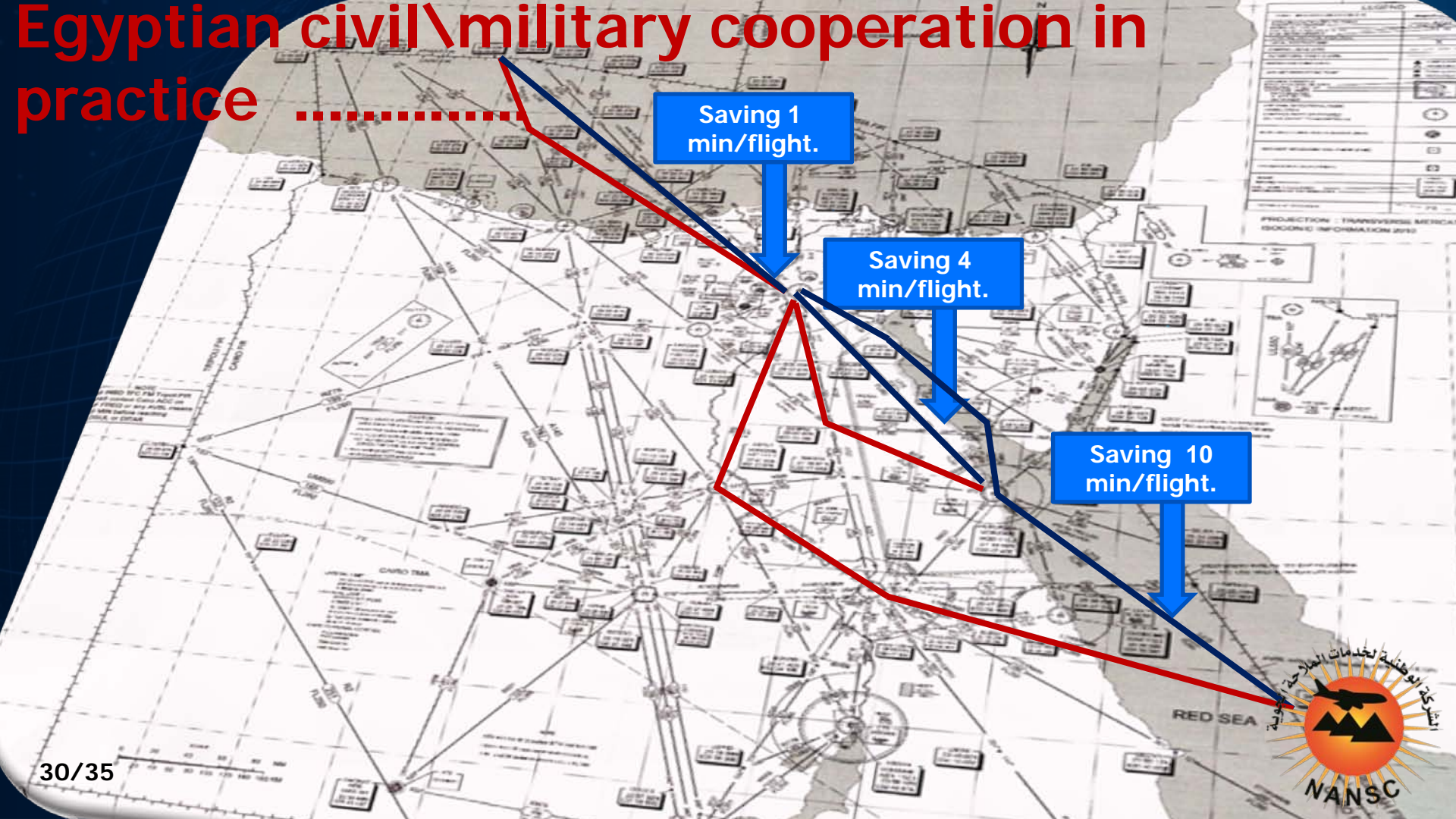
Egyptian civil\military cooperation in practice

Saving 15 min/flight.

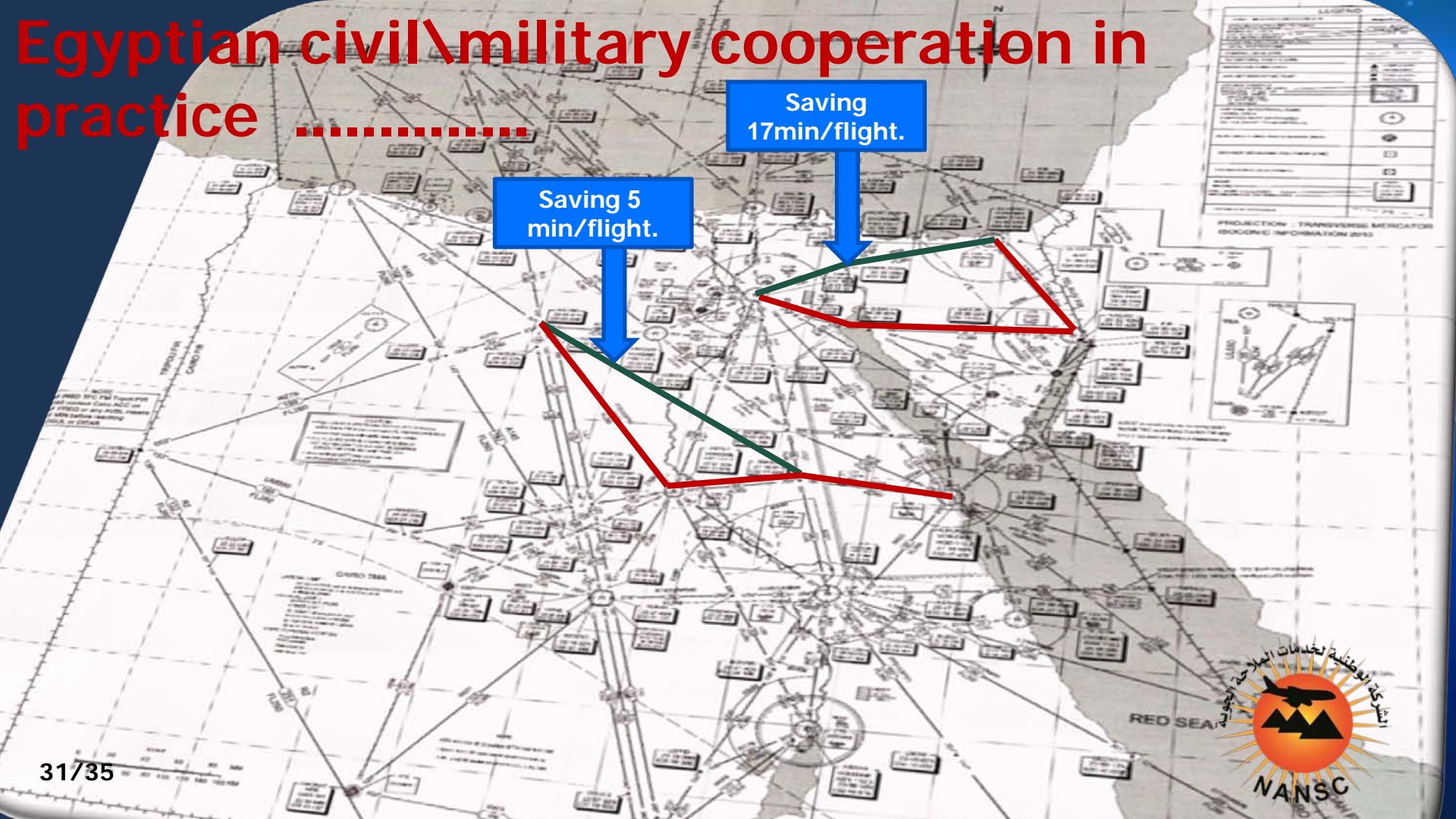
Note: module used in this calculation depend on A333



Egyptian civil\military cooperation in practice

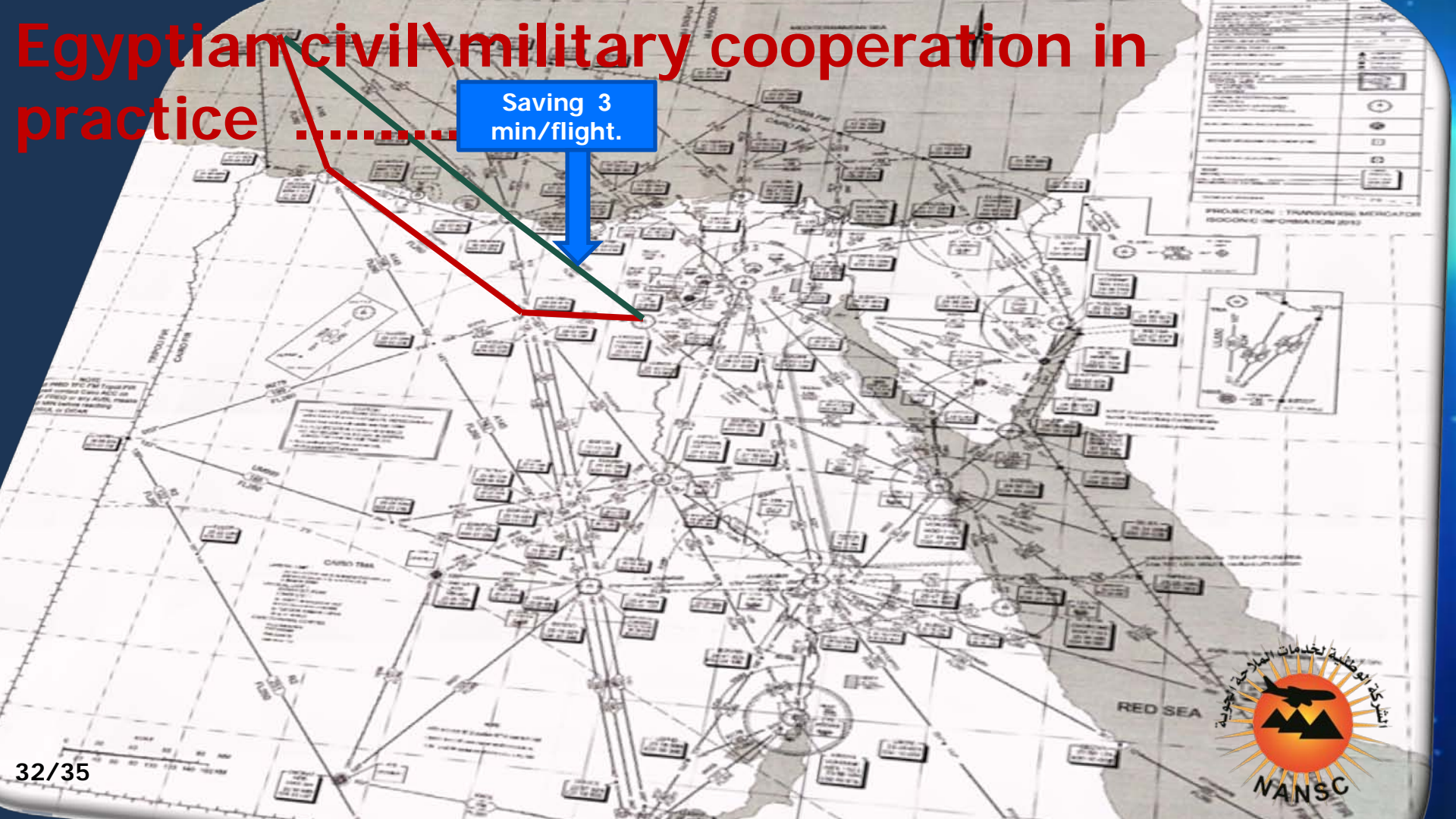


Egyptian civil\military cooperation in practice



Egyptian civil\military cooperation in practice

Saving 3 min/flight.



FINALLY

Civil military cooperation can not become a reality over night, but a lot of consideration regarding TAA and transformation to FUA must be given to various stages of implementation. We still need:

- saving more mileage
- Saving fuel which is positive impact for CBA
- Reduce emission to protect our planet
- Build a bridge of trust between civil & military sides not only nationally but also regionally.



Let start together in regional cooperation and don't say



Questions? Comments?



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We are happy to help you!

