1 ARMOURED DIVISION SIGNAL REGT (AREN)

SOFTWARE SYNOPSIS

AIR SUPPORT DEMAND SOFTWARE

Felt Need

1. In contemporary military operations, the efficacy of air support plays a pivotal role in mission success. However, the current method for requesting air support by leading fighting formations often involves manual processes, such as submitting paper-based requests for approval.

2. This traditional approach is not only time-consuming but also prone to delays and inefficiencies, which can impact operational tempo and effectiveness. Recognizing these challenges, there arose a critical need for automation to streamline the demand procedure, enhance operational efficiency, and improve the overall responsiveness of air support coordination efforts.

Aim

3. The aim of the software is to automate Air Support Demand procedure during operations.

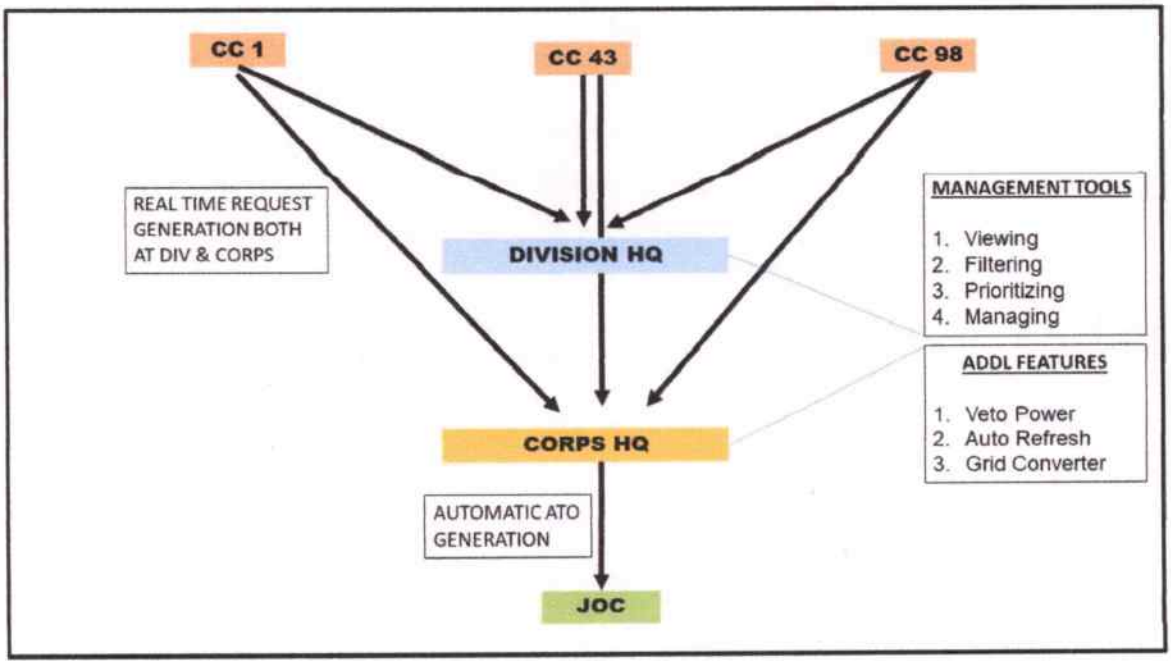
Present System

4. As per the present system, the method for requesting air support by leading fighting formations often involves manual processes, such as submitting paper-based requests for approval using vintage SMART eqpt.

5. This traditional approach is not only time-consuming but also prone to delays and errors, which can impact operational tempo and effectiveness. The same shortcomings of present system were witnessed in Ex Kharga Shakti II.

Proposed System to be developed

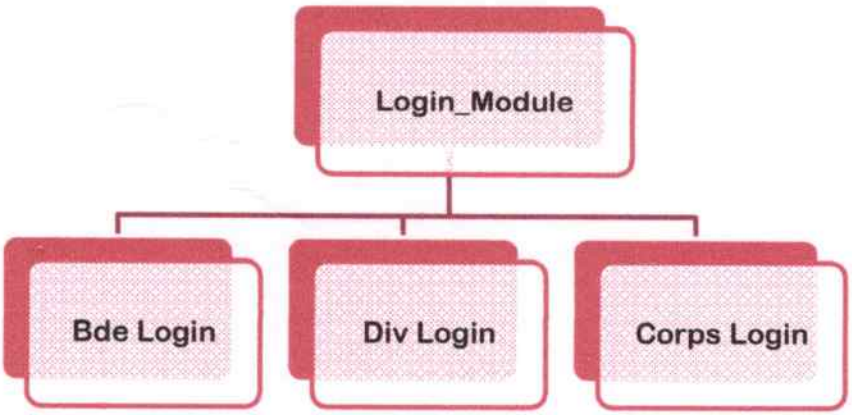
6. The software developed automates the process of demanding Air Support in real time. The software's functionality extends beyond mere request submission. It includes robust tools for viewing, filtering, prioritizing, and managing requests based on operational priorities, mission objectives, and resource availability. Flowchart of automating this process is mentioned below: -



Scope

7. The salient features of the software are enumerated in the succeeding bullets:

(a) **Secure and Role-Based Access**. The system ensures secure access through separate logins for Commanders, Corps, Divisions, and Brigades, adhering to strict role-based permissions to safeguard sensitive operational information.



(b) **Intuitive Graphical User Interface (GUI)**. Designed with usability in mind, the GUI offers an interface that simplifies the request submission process, reduces training overhead, and enhances user adoption across different military units and operational environments.

(c) **Real-Time Data Transmission**. Requests are transmitted instantaneously to higher headquarters, ensuring that decision-makers receive up-to-date information in real-time to make informed and timely decisions.

(d) **Comprehensive Management Tools**. The software provides comprehensive tools for viewing, filtering, prioritizing, and managing air support requests. These tools empower decision-makers to effectively allocate resources based on operational needs and mission priorities.

(e) **Geospatial Capabilities**. Built-in military grid reference to latitude/longitude conversion capabilities enable precise geolocation data, essential for accurate targeting and mission planning in diverse operational environments.

(f) **Automatic ATO Form Generation**. Upon approval, the system automates the creation of ATO forms, eliminating manual paperwork and reducing administrative burden. The standardized ATO forms ensure consistency and clarity in mission execution directives.

(g) **VETO Functionality**. Built-in timer of 10 minutes for Division to exercise Veto power over Immediate Air Support requests by Bde's.

(h) **Auto Refresh**. The software includes capability to auto refresh summary pages every 1 minute for updated real time demand requests at Higher HQ's.

System Requirement Specifications

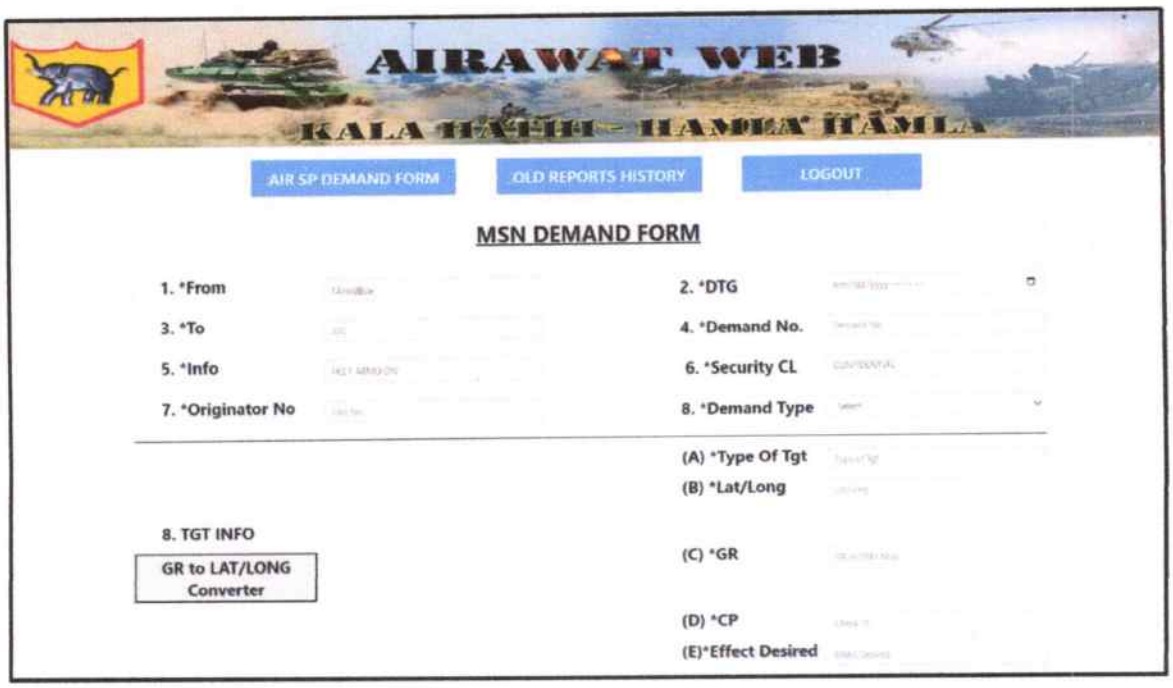
9. **Hardware requirement**. The system used for accessing the web application should have the following specifications:

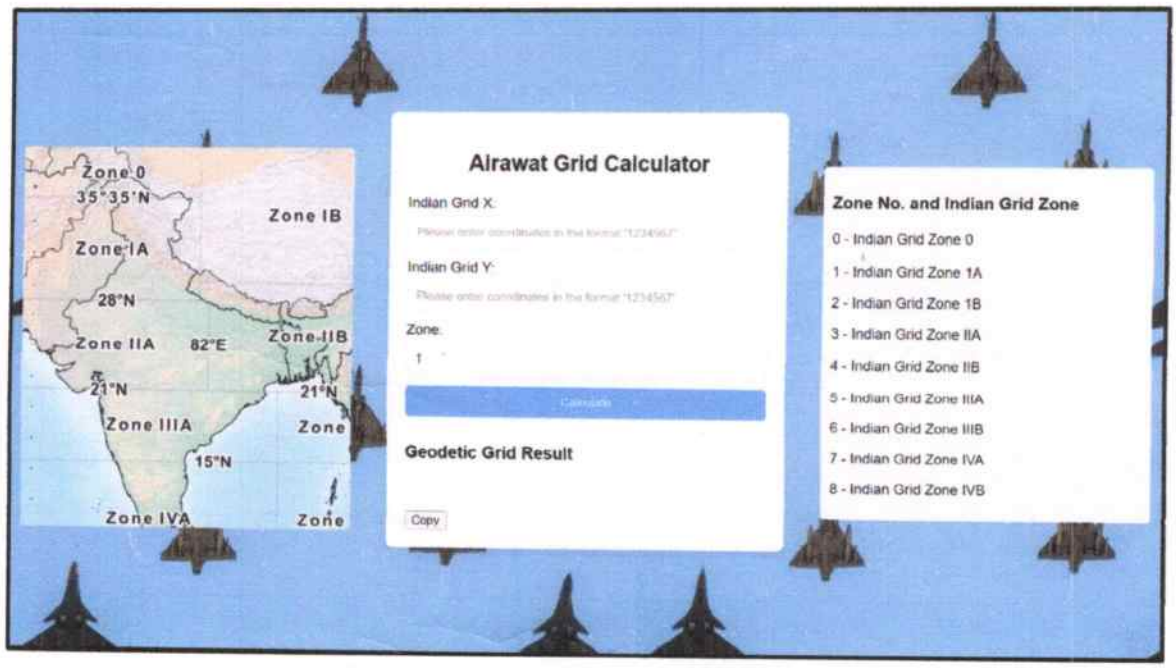
(a) Minimum RAM-2 GB
(b) Hard Disk-40 GB
(c) Processor - Intel Core i5 or above
(d) Operating System - Windows 10 and above

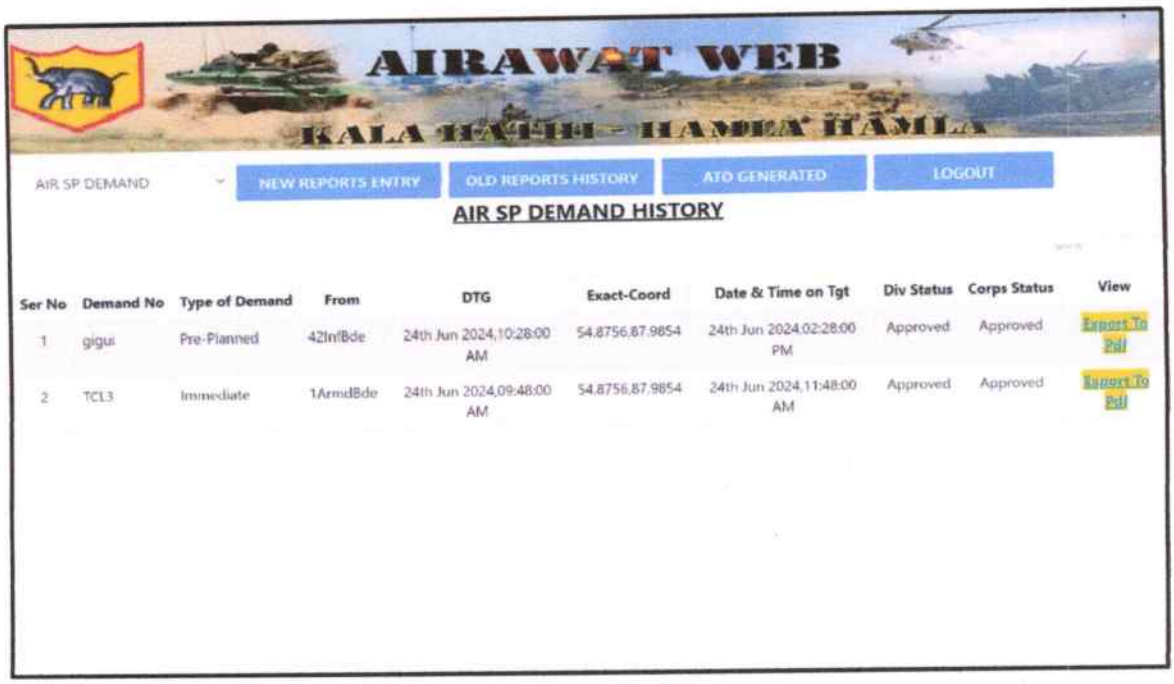
10. **Graphical User Interface**. The GUI for all the modules in the web application is attached as Appx.

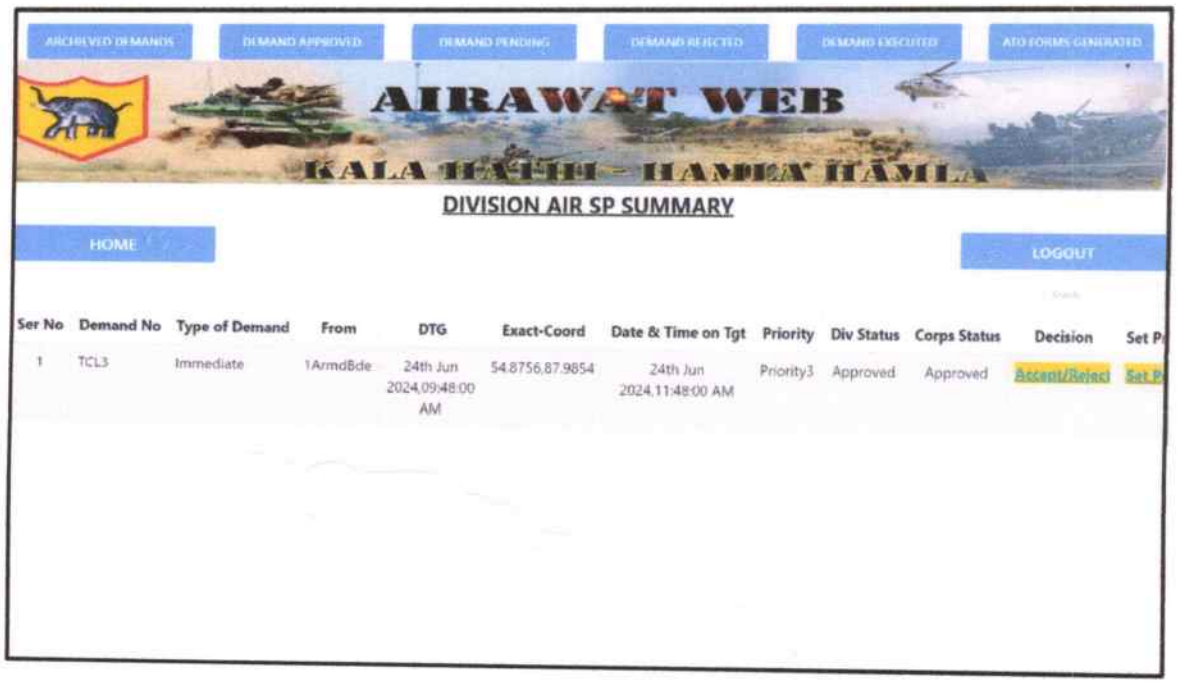
11. **Conclusion**. The Automated Air Support Demand System represents a paradigm shift in modern military operations, harnessing technology to optimize the coordination and delivery of air support resources. By automating traditionally labor-intensive processes and integrating advanced geospatial capabilities, the software enhances operational efficiency, responsiveness, and situational awareness across all echelons of command. Through its intuitive GUI, secure access controls, real-time data transmission capabilities, and comprehensive management tools, the system empowers military leaders to make informed decisions swiftly and effectively. By streamlining the demand process and facilitating seamless communication between operational units, the Automated Air Support Demand System ensures that air support resources are deployed with precision and efficiency, ultimately enhancing mission success and operational effectiveness in dynamic and challenging environments.

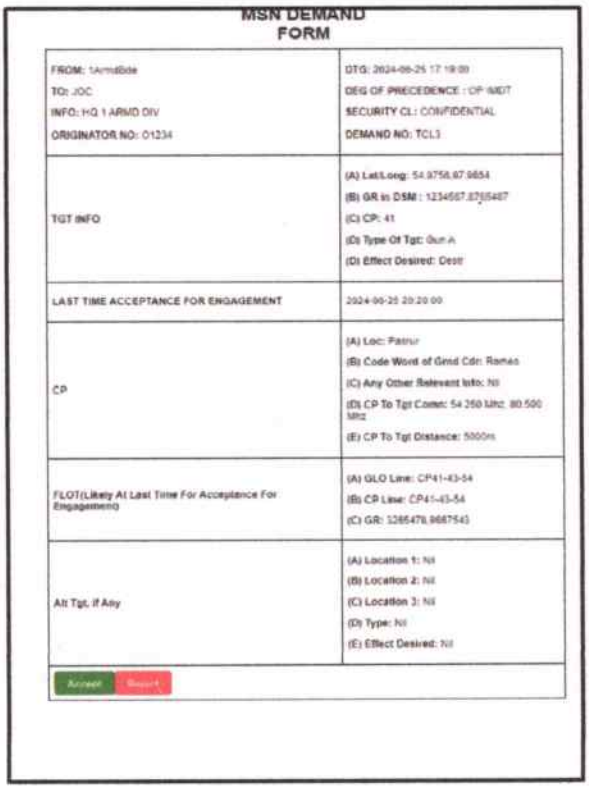
Appx


AIRAWAT WEB
KALA HATHI - HAMLA HAMLA
AIR SP DEMAND FORM
OLD REPORTS HISTORY
LOGOUT
MSN DEMAND FORM
1. *From
2. *DTG
3. *To
4. *Demand No.
5. *Info
6. *Security CL
7. *Originator No
8. *Demand Type
(A) *Type Of Tgt
(B) *Lat/Long
8. TGT INFO
GR to LAT/LONG Converter
(C) *GR
(D) *CP
(E)*Effect Desired


Zone 0
35°35'N
Zone IB
Zone IA
28°N
Zone IIA
82°E
Zone IIB
21°N
21°N
Zone IIIA
Zone
15°N
Zone IVA
Zone
Airawat Grid Calculator
Indian Grid X:
Indian Grid Y:
Zone:
1
Calculate
Geodetic Grid Result
Copy
Zone No. and Indian Grid Zone
0 - Indian Grid Zone 0
1 - Indian Grid Zone 1A
2 - Indian Grid Zone 1B
3 - Indian Grid Zone IIA
4 - Indian Grid Zone IIB
5 - Indian Grid Zone IIIA
6 - Indian Grid Zone IIIB
7 - Indian Grid Zone IVA
8 - Indian Grid Zone IVB


AIRAWAT WEB
KALA HATHI – HAMLA HAMLA
AIR SP DEMAND
NEW REPORTS ENTRY
OLD REPORTS HISTORY
ATO GENERATED
LOGOUT
AIR SP DEMAND HISTORY
Ser No Demand No Type of Demand From DTG Exact-Coord Date & Time on Tgt Div Status Corps Status View
1 gigui Pre-Planned 42InfBde 24th Jun 2024,10:28:00 AM 54.8756,87.9854 24th Jun 2024,02:28:00 PM Approved Approved Export To Pdf
2 TCL3 Immediate 1ArmdBde 24th Jun 2024,09:48:00 AM 54.8756,87.9854 24th Jun 2024,11:48:00 AM Approved Approved Export To Pdf


ARCHIEVED DEMANDS
DEMAND APPROVED
DEMAND PENDING
DEMAND REJECTED
DEMAND EXECUTED
ATO FORMS GENERATED
AIRAWAT WEB
KALA HATHI – HAMLA HAMLA
DIVISION AIR SP SUMMARY
HOME
LOGOUT
Ser No Demand No Type of Demand From DTG Exact-Coord Date & Time on Tgt Priority Div Status Corps Status Decision Set P
1 TCL3 Immediate 1ArmdBde 24th Jun 2024,09:48:00 AM 54.8756,87.9854 24th Jun 2024,11:48:00 AM Priority3 Approved Approved Accept/Reject Set P



MSN DEMAND FORM

FROM: 1ArmdBde TO: JOC INFO: HQ 1 ARMD DIV ORIGINATOR NO: 01234	DTG: 2024-06-25 17:19:00 DEG OF PRECEDENCE : OP IMDT SECURITY CL: CONFIDENTIAL DEMAND NO: TCL3
TGT INFO	(A) Lat/Long: 54.8756,87.9854 (B) GR in DSM : 1234567,8765467 (C) CP: 41 (D) Type Of Tgt: Gun A (D) Effect Desired: Destr
LAST TIME ACCEPTANCE FOR ENGAGEMENT	2024-06-25 20:20:00
CP	(A) Loc: Pasrur (B) Code Word of Grid Cdn: Romeo (C) Any Other Relevant Info: Nil (D) CP To Tgt Comm: 54.250 Mhz, 80.500 Mhz (E) CP To Tgt Distance: 5000m
FLOT(Likely At Last Time For Acceptance For Engagement)	(A) GLO Line: CP41-43-54 (B) CP Line: CP41-43-54 (C) GR: 3265478,9867543
Alt Tgt, if Any	(A) Location 1: Nil (B) Location 2: Nil (C) Location 3: Nil (D) Type: Nil (E) Effect Desired: Nil
Accept Reject	

Mission Information

Demand No:

First Unit tasked for Mission:

Second Unit tasked for Mission:

Date of Mission:

Mission Code:

Authentication Code:

Counter Passwords:

Call sign of Aircraft:

Call Sign of CG/GT:

No of runs planned and type of control for all run ins:

TOCP or TOCP block:

CP coordinates:

No of targets and their description:

Target coordinates and elevation:

Type and no of ac tasked:

Type of mark available, if laser then code and if smoke then colour:

Communication Freq(Main & Relay) :

Type and no of attack for all run ins:

Retroute of contact points:

FLOT in term of coordinates:

FLOT in term of coordinates(Optional):

FLOT in term of coordinates(Optional):

Any other info:

SUBMIT

124 AH(.)124 AH (.) ALPHA (.) 2024-06-25 20:20:00 (.) BRAVO (.) A01 (.) CHARLIE (.)KALA (.) DELTA (.) HATHI (.) ECHO (.) F101 (.) FOXTROT (.)Romeo (.) GOLF (.) 02 (.) HOTEL (.) 1800Hrs (.) KILO (.)CP41-43-54 (.) LIMA (.) Gun A (.) MIKE (.) 54.8756,87.9854 (.) NOV (.)03 (.) OSCAR (.) Laser 04 (.) PAPA (.) 58.250 Mhz, 80.500 M (.) QUEBEC (.)8000m (.) ROMEO (.) 6000m (.) SIERRA (.) 3265478,9867543(.)Nil(.)Nil (.) TANGO (.)Nil (.) UNIFORM (.)

Code	Code Meaning
A	Unit Tasked For Mission(Mother Base)
B	Date of Mission
C	Mission Code
D	Authentication code
E	Counter Password
F	Call sign of Aircraft
G	Call Sign of CG/GT
H	No of Runs Planned
J	TOCP or TOCP Block
K	CP Coordinates
L	No of Targets & their description
M	Target Coordinates and elevation
N	Type and No of ac Tasked
O	Wpn Load asked for
P	Type of Mark available
Q	Comm Plan
R	Type & Pt of attack for all run ins
S	Retroute for run ins
T	FLOT in terms of coordinates
U	Any other info