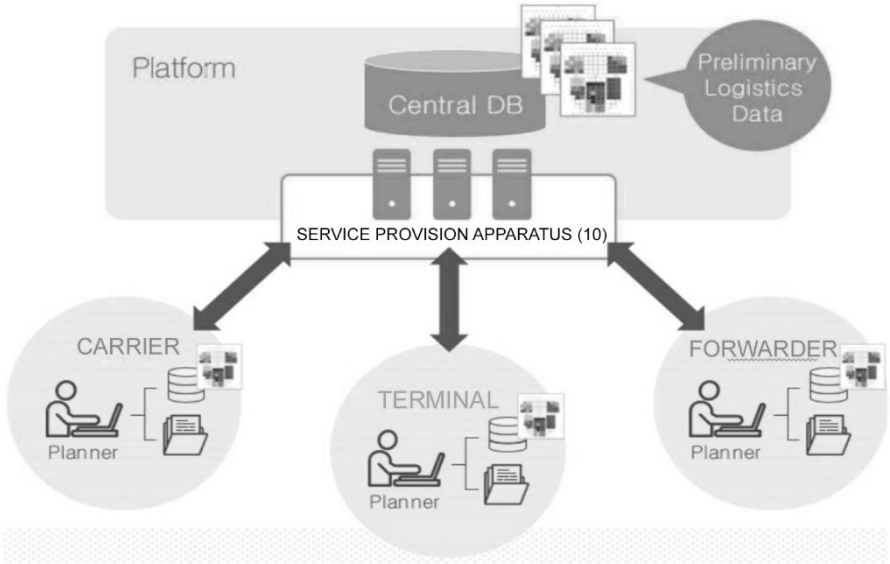

Platform
Central DB
Preliminary Logistics Data
SERVICE PROVISION APPARATUS (10)
CARRIER
Planner
TERMINAL
Planner
FORWARDER
Planner

FIG. 1

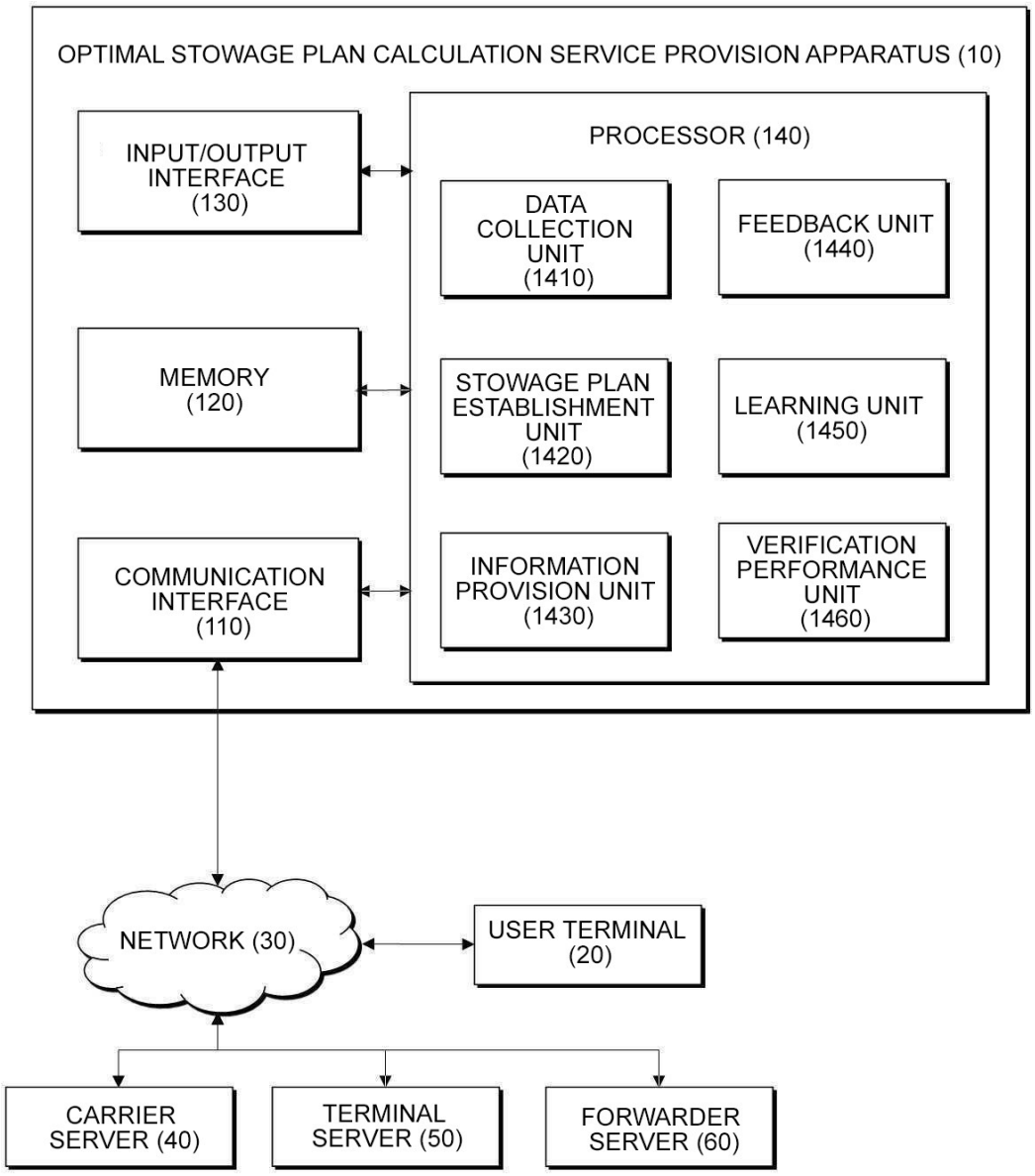

OPTIMAL STOWAGE PLAN CALCULATION SERVICE PROVISION APPARATUS (10)
INPUT/OUTPUT INTERFACE (130)
MEMORY (120)
COMMUNICATION INTERFACE (110)
PROCESSOR (140)
DATA COLLECTION UNIT (1410)
FEEDBACK UNIT (1440)
STOWAGE PLAN ESTABLISHMENT UNIT (1420)
LEARNING UNIT (1450)
INFORMATION PROVISION UNIT (1430)
VERIFICATION PERFORMANCE UNIT (1460)
NETWORK (30)
USER TERMINAL (20)
CARRIER SERVER (40)
TERMINAL SERVER (50)
FORWARDER SERVER (60)

FIG. 2

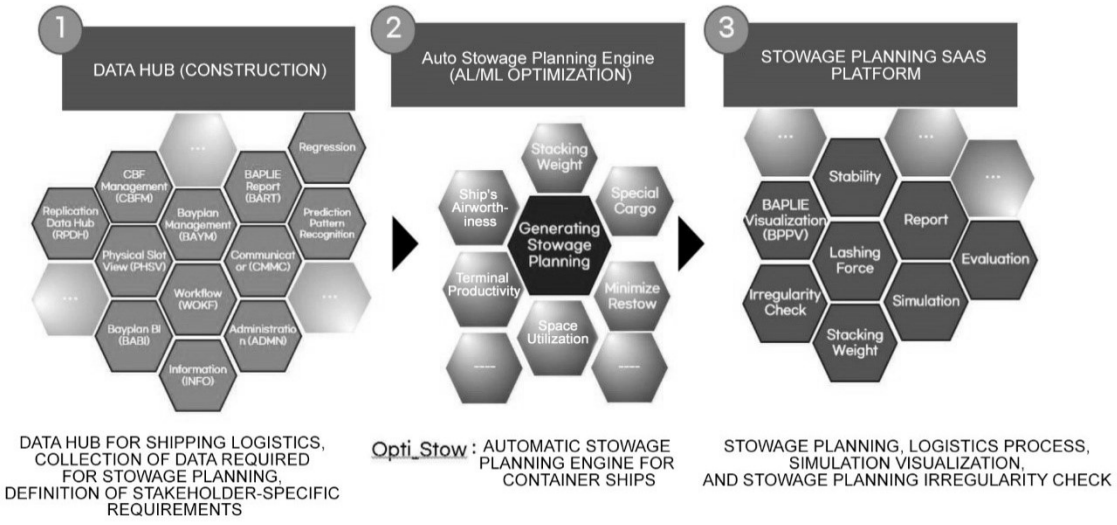
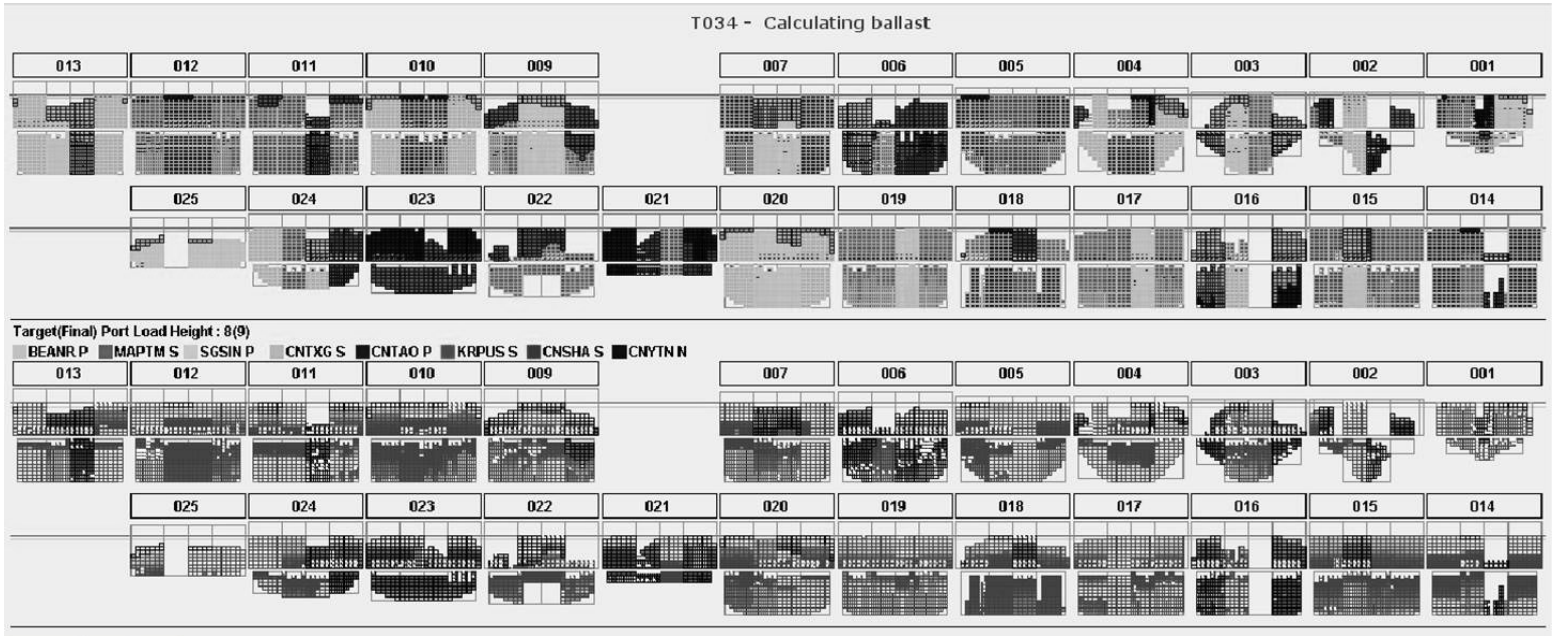

1
DATA HUB (CONSTRUCTION)
CBF Management (CBFM)
BAPLIE Report (BART)
Regression
Replication Data Hub (RPDH)
Baypian Management (BAYM)
Prediction Pattern Recognition
Physical Slot View (PHSV)
Communicator (CMMC)
Workflow (WOKF)
Baypian BI (BABI)
Administration (ADMN)
Information (INFO)
DATA HUB FOR SHIPPING LOGISTICS, COLLECTION OF DATA REQUIRED FOR STOWAGE PLANNING, DEFINITION OF STAKEHOLDER-SPECIFIC REQUIREMENTS
2
Auto Stowage Planning Engine (AL/ML OPTIMIZATION)
Stacking Weight
Ship's Airworthiness
Special Cargo
Generating Stowage Planning
Terminal Productivity
Minimize Restow
Space Utilization
Opti_Stow : AUTOMATIC STOWAGE PLANNING ENGINE FOR CONTAINER SHIPS
3
STOWAGE PLANNING SAAS PLATFORM
Stability
BAPLIE Visualization (BPPV)
Report
Lashing Force
Evaluation
Irregularity Check
Simulation
Stacking Weight
STOWAGE PLANNING, LOGISTICS PROCESS, SIMULATION VISUALIZATION, AND STOWAGE PLANNING IRREGULARITY CHECK

FIG. 3



Status	Prev	Curr
Fail locate	0	0
- SP	0	0
Restow	0	0
Rehand	0	0
Dead slot	0	0
- OOG	72	72
- EHC		
Half Hold	0	0
Tmnl Re...		
Mix Block	14	14
- inc IPC	22	22
Over Gang	0	0
GoM	4.0	3.6
trim	3.67	2.0
Heeling	0.28	0.21
Max Draft		15.0
Max SF		99.91
Max BM		94.81
Max TM		97.70
Ballast	33009	28196
Visibility	1702...	608

FIG. 4A

Blazor Chart - Overview

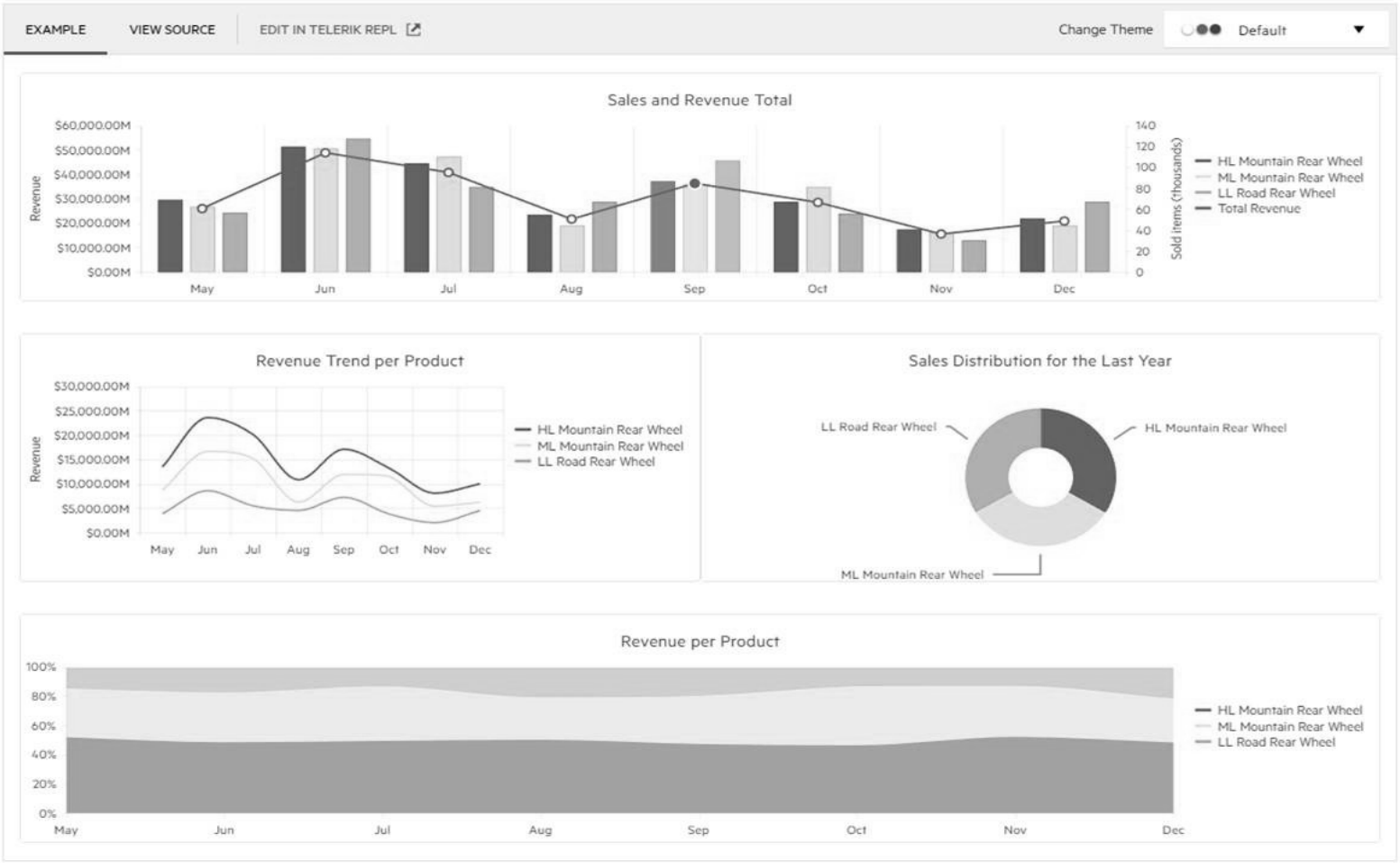


FIG. 4B

Stowage Categories	On Deck or Under Deck	Cargo Ships (up to 12 passengers)	Passenger Ships
01	On Deck	Allowed in closed cargo transport unit	Allowed in in closed cargo transport unit
01	Under Deck	Allowed	Allowed
02	On Deck	Allowed in closed cargo transport unit	Allowed in in closed cargo transport unit
02	Under Deck	Allowed	Allowed in in closed cargo transport unit as per 7.1.4.4.5 IMDG Code (36-12)
03	On Deck	Allowed in closed cargo transport unit	Prohibited except if as per 7.1.4.4.5 of 5 IMDG Code (36-12)
03	Under Deck	Allowed	
04	On Deck	Allowed in closed cargo transport unit	Prohibited except if as per 7.1.4.4.5 of IMDG Code (36-12)
04	Under Deck	Allowed in closed cargo transport unit	
05	On Deck	Allowed in closed cargo transport unit	Prohibited except if as per 7.1.4.4.5 of IMDG Code (36-12)
05	Under Deck	Prohibited	

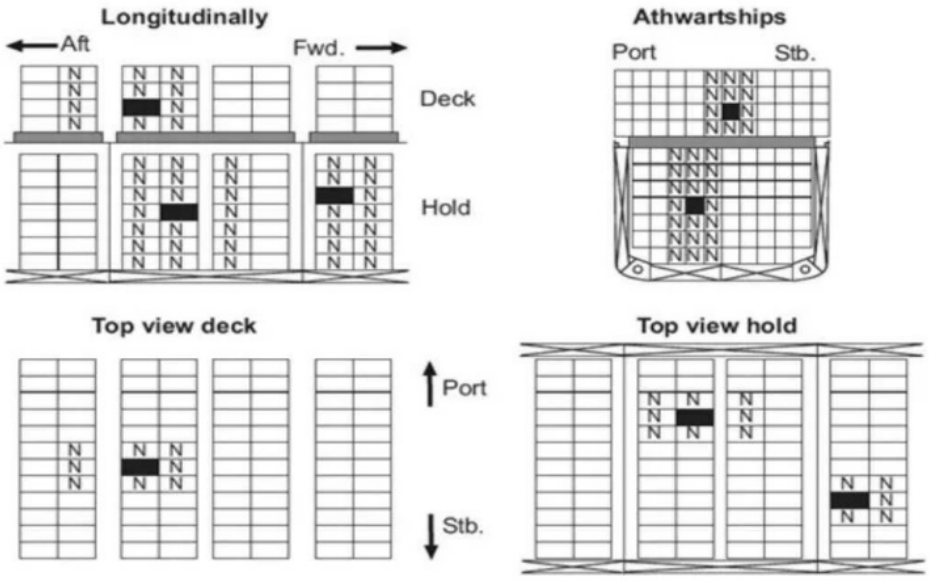


FIG. 5

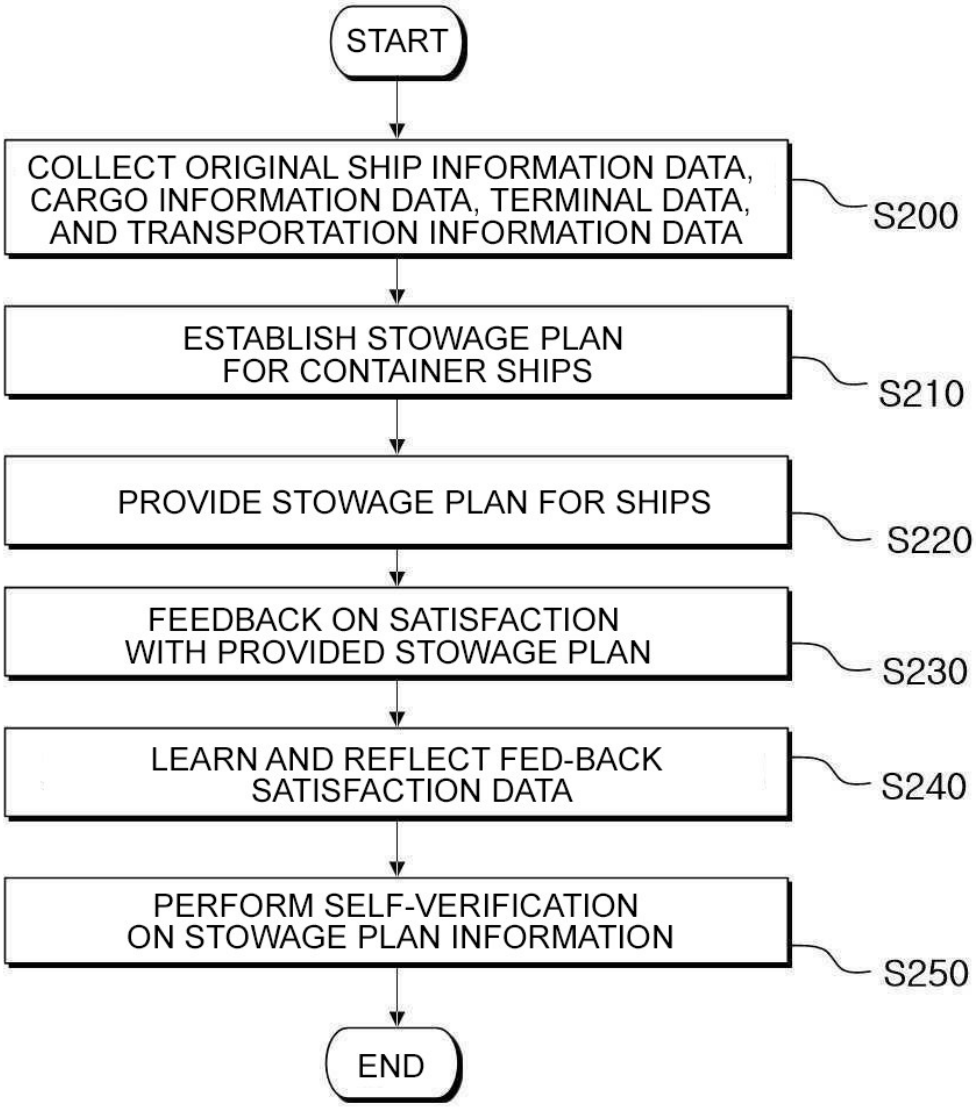

START
COLLECT ORIGINAL SHIP INFORMATION DATA, CARGO INFORMATION DATA, TERMINAL DATA, AND TRANSPORTATION INFORMATION DATA
S200
ESTABLISH STOWAGE PLAN FOR CONTAINER SHIPS
S210
PROVIDE STOWAGE PLAN FOR SHIPS
S220
FEEDBACK ON SATISFACTION WITH PROVIDED STOWAGE PLAN
S230
LEARN AND REFLECT FED-BACK SATISFACTION DATA
S240
PERFORM SELF-VERIFICATION ON STOWAGE PLAN INFORMATION
S250
END

FIG. 6