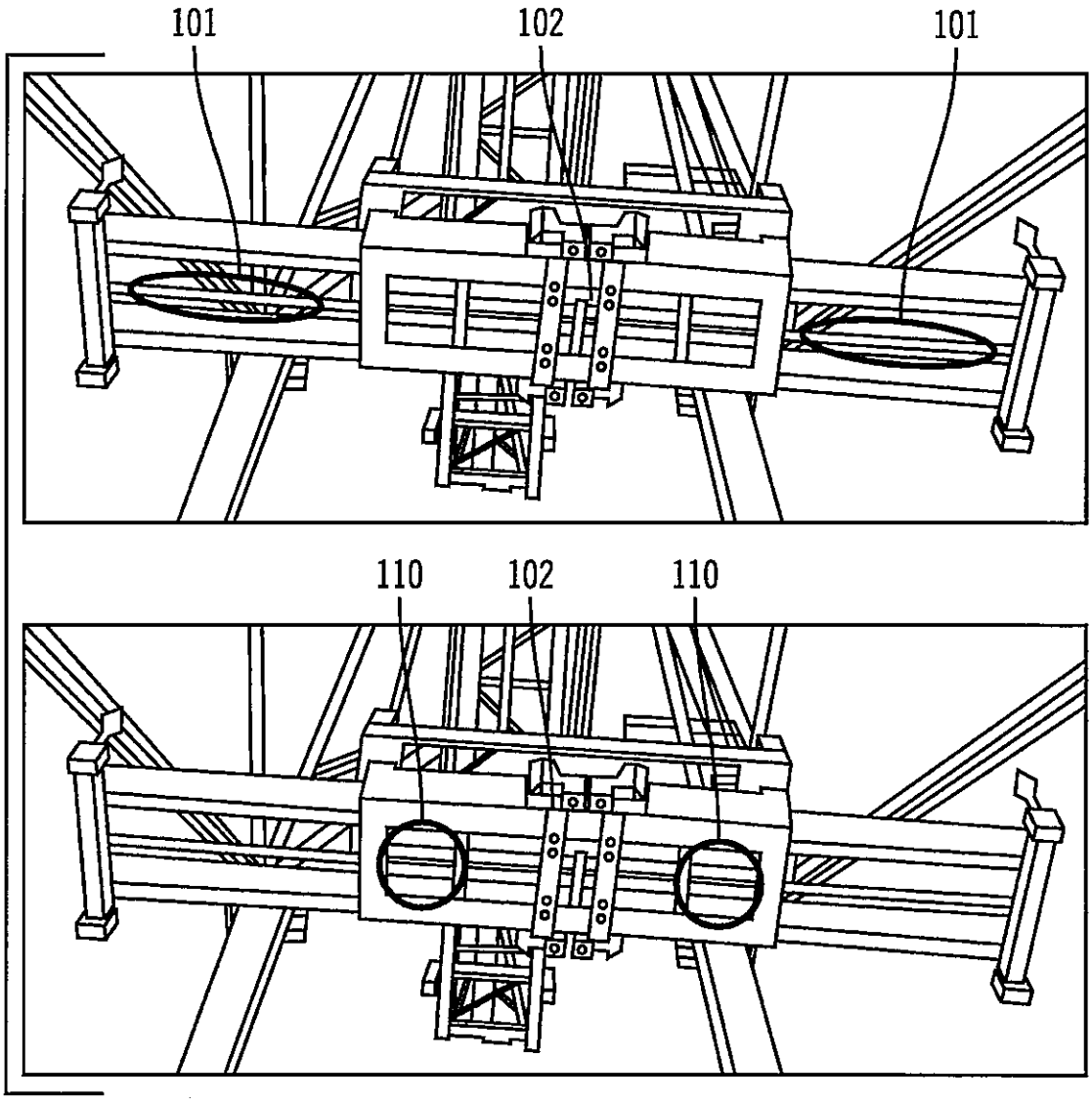


FIG. 1

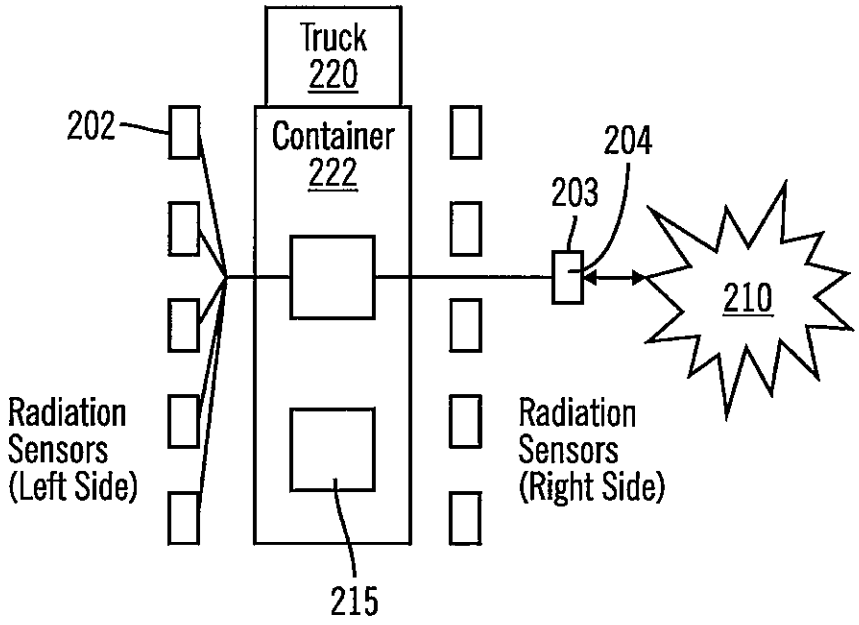

Truck
220
Container
222
202
204
203
210
Radiation
Sensors
(Left Side)
Radiation
Sensors
(Right Side)
215

FIG. 2

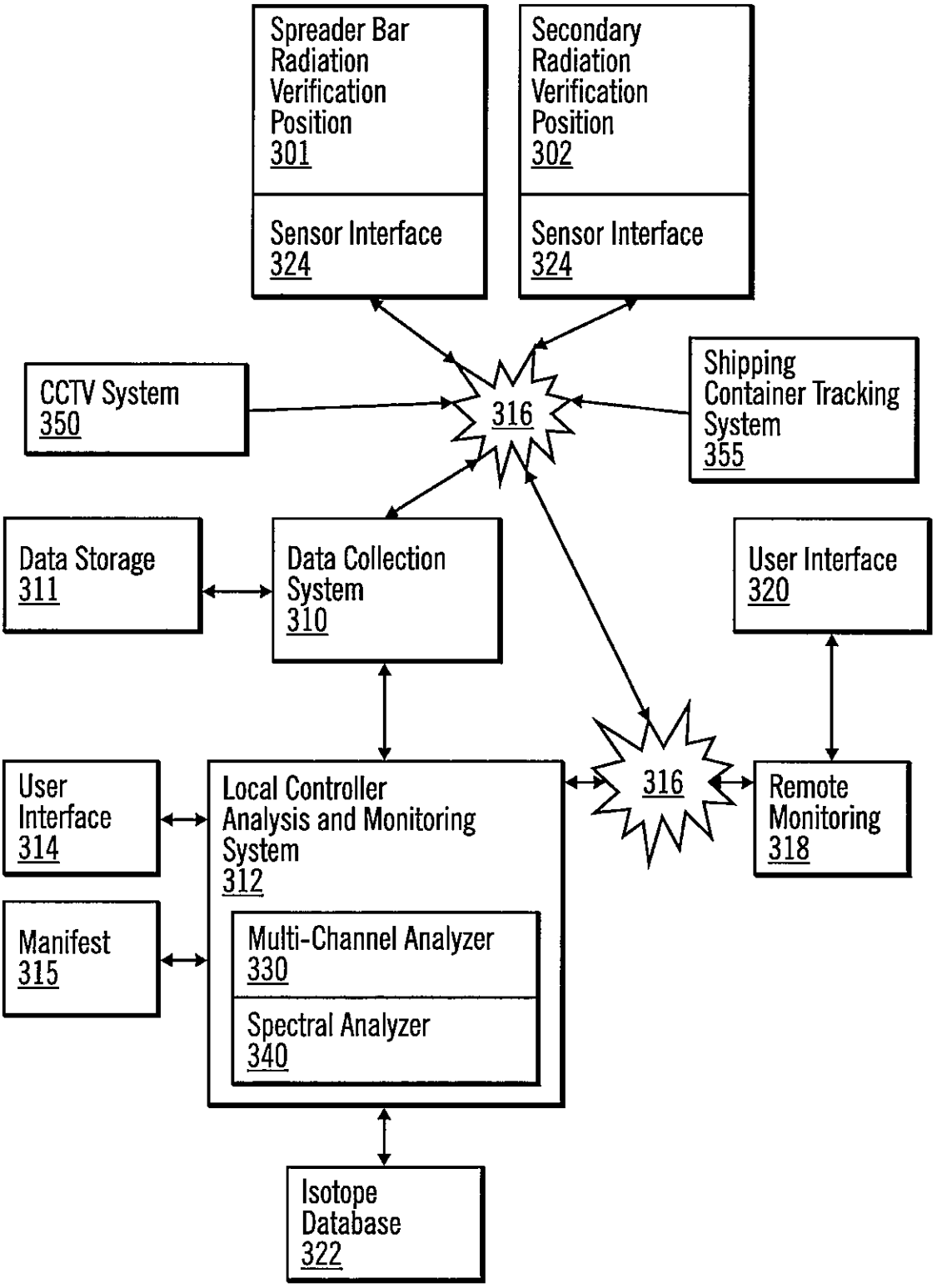

Spreader Bar Radiation Verification Position 301
Sensor Interface 324
Secondary Radiation Verification Position 302
Sensor Interface 324
CCTV System 350
316
Shipping Container Tracking System 355
Data Storage 311
Data Collection System 310
User Interface 320
User Interface 314
Local Controller Analysis and Monitoring System 312
316
Remote Monitoring 318
Manifest 315
Multi-Channel Analyzer 330
Spectral Analyzer 340
Isotope Database 322

FIG. 3

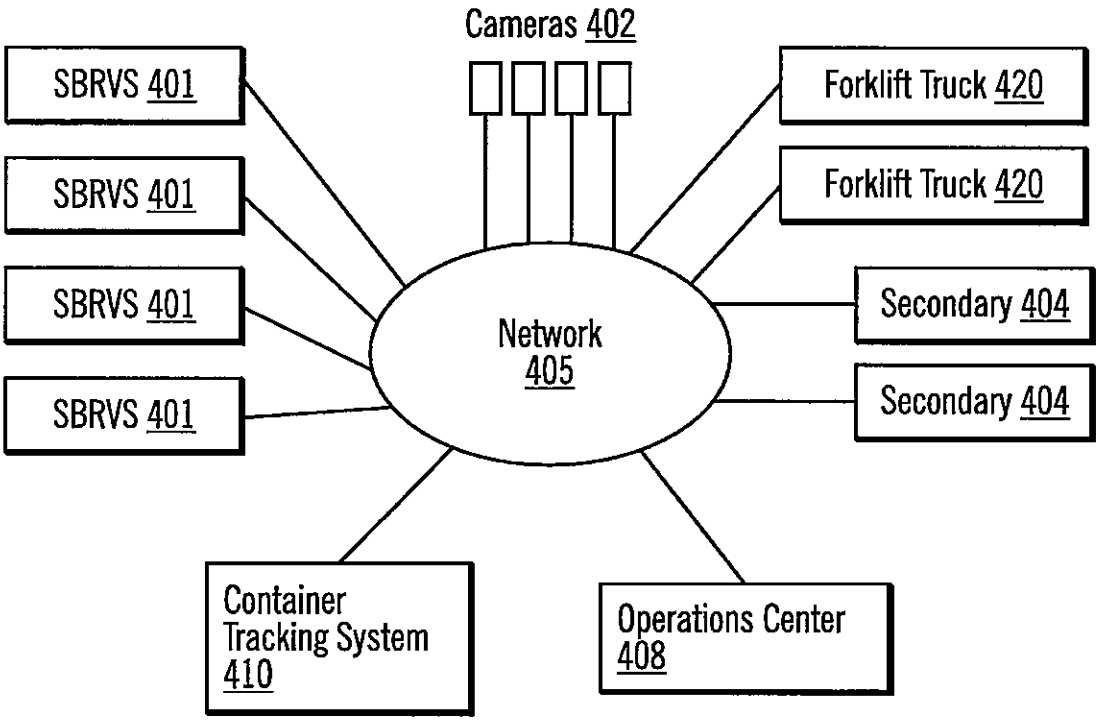
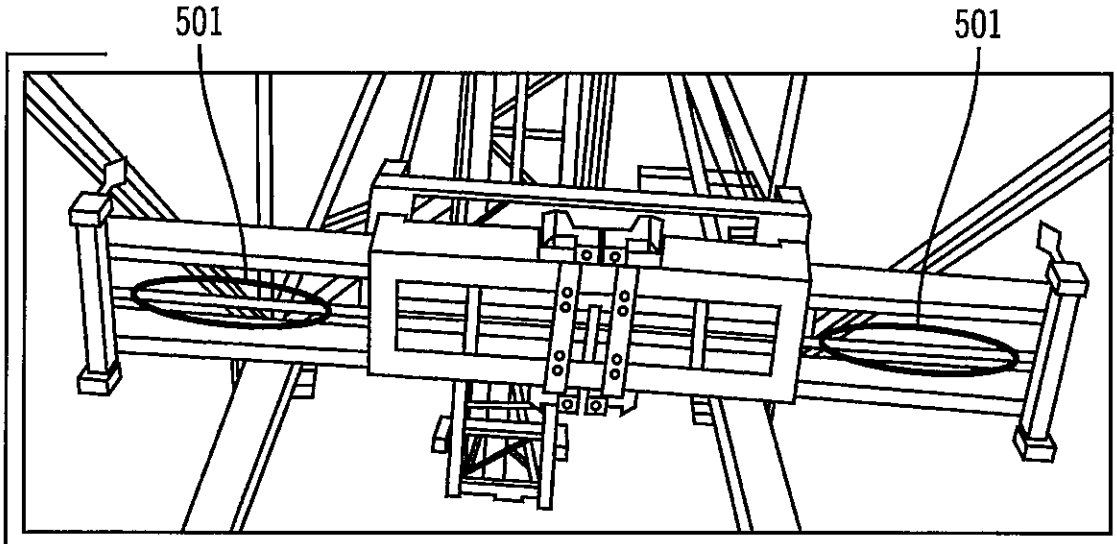

Cameras 402
SBRVS 401
SBRVS 401
SBRVS 401
SBRVS 401
Forklift Truck 420
Forklift Truck 420
Secondary 404
Secondary 404
Network 405
Container Tracking System 410
Operations Center 408

FIG. 4



Approximate Location of Push/Pull Sensor Array on STS-45

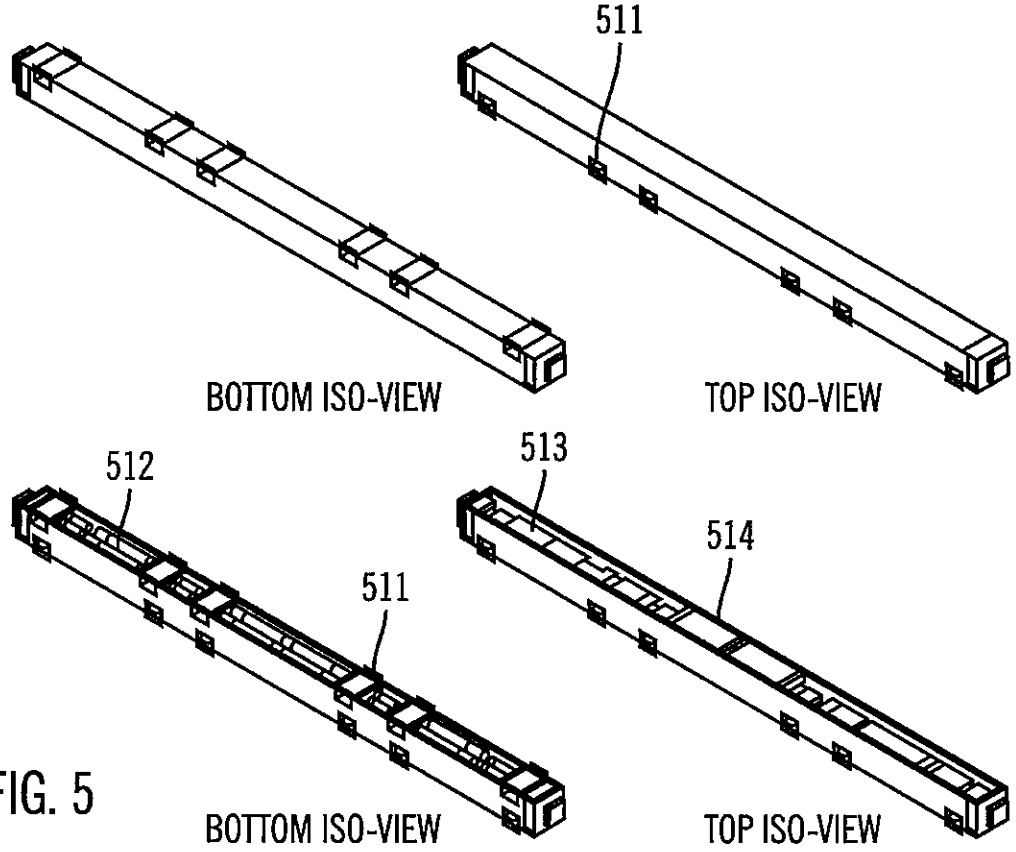
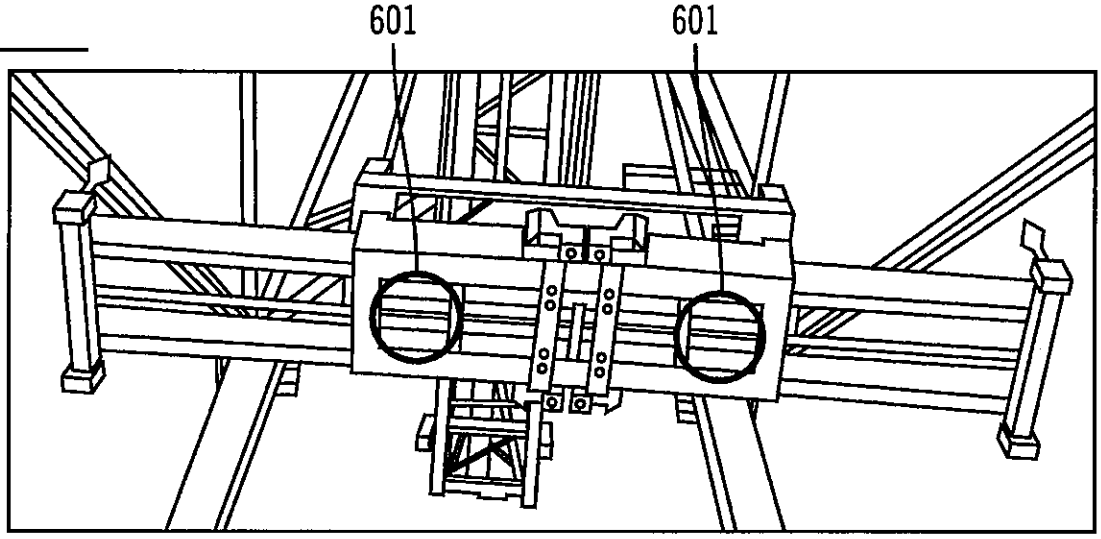
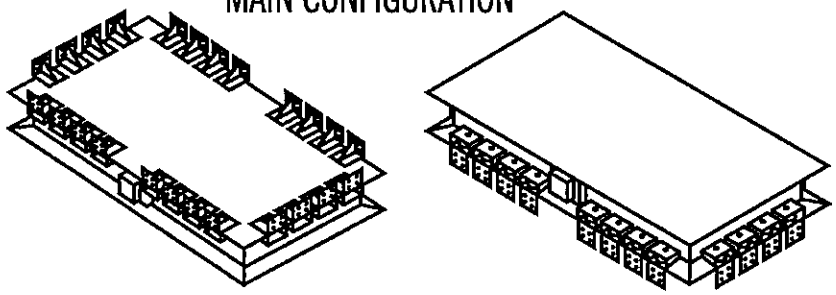


FIG. 5



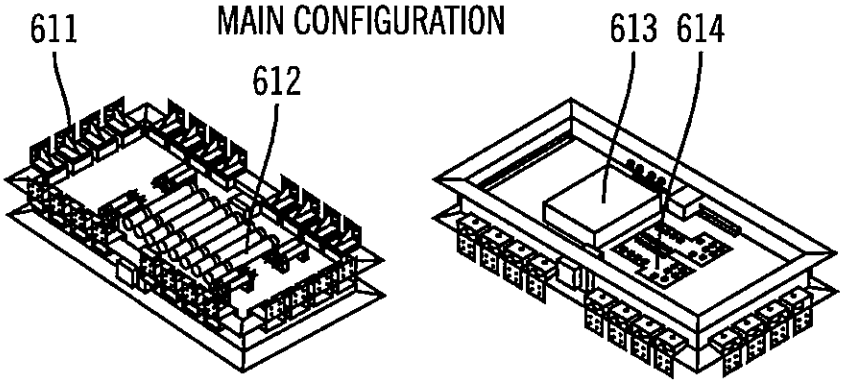
Approximate Location of Main Unit on STS-45

MAIN CONFIGURATION



BOTTOM ISO-VIEW TOP ISO-VIEW

MAIN CONFIGURATION



BOTTOM ISO-VIEW TOP ISO-VIEW

FIG. 6

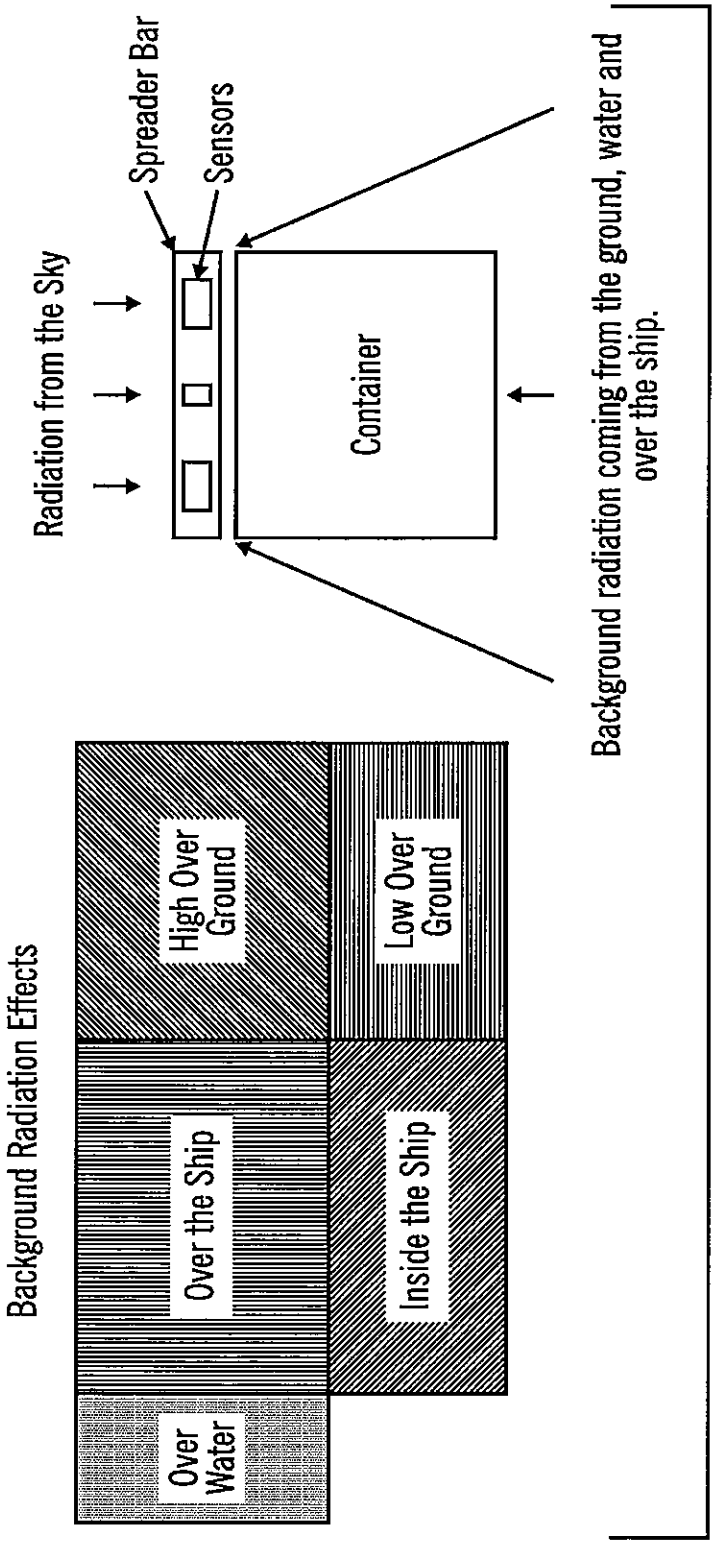

Background Radiation Effects
Over Water
Over the Ship
High Over Ground
Inside the Ship
Low Over Ground
Radiation from the Sky
Spreader Bar
Sensors
Container
Background radiation coming from the ground, water and over the ship.

FIG. 7

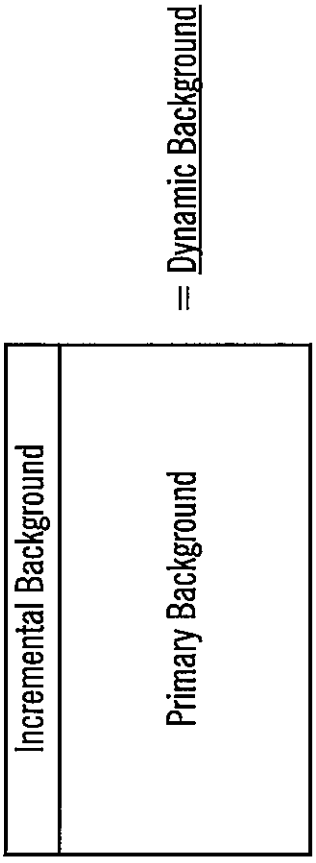

Dynamic Background
=
Incremental Background
Primary Background

FIG. 8

$$B_i(X) = A_i(X) * \text{alpha} + B_{i-1}(X) * (1\text{-alpha})$$

$B_i(X) =$	$A_i(X)$	* alpha	$+ B_{i-1}(X)$	* (1-alpha)
New Dynamic Background	Snap Shot of Background	Learning Rate	Previous Background	Differential

B = Calculated Background
A = Incremental Background
X = Channel Number

FIG. 9