CLAIMS

1. Avionic system (1) for emergency interception preventing imminent grounding or damages of aircraft fleets (81,...,84) following natural disaster events or terroristic activities with an automated and integrated resource-pooling system providing an automated, self-sufficient risk protection for a risk exposure of the aircraft fleets (41,...,44) by means of the resource-pooling system, comprising

a selectable hash table (103, 203) assigned to a flight plan (102, 202) of an aircraft fleet (81,...,84) comprising table elements (101, 201) with operational parameters of an airport (91,...94), wherein airports (91,...,94) covered by the table elements (101, 201) are airports (91,...,94) flown to according the fight plan (102, 202) of pooled aircraft fleet (81,...,84),

a plurality of ground stations (911,...,914) situated at said flown to airports (91,...,94) of the fight plan (102,202), wherein the ground stations (911,...,914) are linked via a communication network (50,51) to a central processing unit (2) of the avionic system (1),

an electronic receiver module (3) of said central processing unit (2) that receives, via a communication network interface (31), a transmission from a detection device (4), said transmission including at least parameters regarding a time interval parameter (1011, 2011) of an airport closing and an airport identification (1012, 2012) of an identification module of the ground station (911,...,914) containing the authentication data relevant for authenticating the related detection device (4), wherein the time interval parameters (1011, 2011) are saved to the operational parameter of the appropriate table element (101, 201) based on the airport identification (1012, 2012), wherein airport closings are automatically detected by the avionic system (1) by means of the transmission of the detection device (4),

a filter module (5) of said central processing unit (2) dynamically incrementing a stack with the transmitted time interval parameters (1011, 2011) based on the hash table (103, 203), wherein the starting point of an event, which is also the starting point to increment a new stack, is triggered due to the proceeding of the

catastrophic event, wherein said catastrophic event is measurable based on atmospheric conditions, meteorological conditions, and/or seismic conditions or by parameters assigned to riots, strikes, war, pandemic events and instrument/equipment failures, wherein the end-point of an event ends the incrementation of a specific stack related to the event, and wherein interim periods, in which airspace is not closed in any one location for said event are not measured, ~~and~~

the filter module (5) of said central processing unit (2) activating a failure deployment device (6) by means of the filter module (5) if a threshold, triggered on the incremented stack value, is reached, thereby generating an output signal (61) to an automated activatable damage covering system operated or steered by the output signal to provide interruption cover of the aircraft fleet (41,...,44) for at least a part of said time interval of said airport closing by means of an automated damage covering system (7).

2. Avionic system (1) according to claim 1, wherein said threshold, triggered on the incremented stack value, is set to bigger-equal 5 and smaller-equal 10 days.

3. Avionic system (1) according to one of the claims 1 or 2, wherein said output signal is only generated, if said transmission comprises a definable minimum number of airport identifications assigned to airport closings thus creating an implicit geographic spread of the closed airports of the flight plan.

4. Avionic system (1) according to one of the claims 1 to 3, wherein said output signal is automated generated by means of the avionic system (1) for a dynamically scalable damage covering of the aircraft fleet (41,...,44) with an definable upper coverage limit.

5. Avionic system (1) according to claim 4, wherein said upper coverage limit is set to smaller-equal US$ 100 million.

6. Avionic system (1) according to one of the claims 1 to 5, wherein the automated damage covering system (7) is realized by means of a resource-pooling system integrated to the avionic system (1), wherein by means of the resource-pooling system flight interruption risks for of a variable number of aircraft fleets (41,...,44) and/or

aircraft operators is sharable by providing a self-sufficient risk protection for a risk exposure of the aircraft fleets (41,...,44) and/or aircraft operators by means of the resource-pooling system.

7. Avionic system (1) according to claim 6, wherein the risk-pooling system comprises at least an assembly module to process risk related aircraft fleet data and to provide the likelihood for said risk exposure a pooled aircraft fleet (41,...,44) based on the risk related aircraft fleet data, wherein the aircraft fleets (41,...,44) are connected to the resource-pooling system by means of a plurality of payment receiving modules configured to receive and store payments from the pooled aircraft fleets (41,...,44) for the pooling of their risks and wherein the payments are automated scaled based on the likelihood of said risk exposure of a specific aircraft fleet (41,...,44).

8. Avionic system (1) according to one of the claims 1 to 7, wherein the filter module (5) of said central processing unit (2) comprises an additional trigger device triggering if said transmission from the detection device (4) is induced by an applicable third party, whereas the transmission of the parameters includes said time interval parameter (1011, 2011) of an airport closing and an airport identification (1012, 2012), and whereas if the airport closing is third-party induced dynamically incrementing the stack with the transmitted time interval parameters (1011, 2011) while otherwise leaving the stack unchanged.

9. A method for emergency interception preventing imminent grounding or damages of aircraft fleets (81,...,84) following natural disaster events or terroristic activities by means of an avionic resource-pooling system (1) providing an automated, self-sufficient risk protection for a risk exposure of the aircraft fleets (41,...,44) by means of the resource-pooling system, comprising:

creating a selectable hash table (103, 203) based on a flight plan (102, 202) of an aircraft fleet (81,...,84) comprising table elements (101, 201) with operational parameters of an airport (91,...,94), wherein the airports (91,...,94) covered by the table elements (101, 201) are approached airports (91,...,94) of the fight plan (102, 202) of pooled aircraft fleet (81,...,84),

linking a plurality of ground stations situated at said approached airports of the fight plan via a communication network (50/51) to a central processing unit (2) of the avionic system (1),

receiving by means of a electronic receiver module (3) of said central processing unit (2) via a communication network interface (31) a transmission from a detection device (4) integrated in the ground stations (911,...,914) via the electronic receiver module (3), said transmission including at least parameter regarding a time interval parameter of an airport closing and an airport identification (1012, 2012) of an identification module of the ground station (911,...,914) containing the authentication data relevant for authenticating the related detection device (4), wherein airport closings are automatically detected by the avionic system (1) by means of the transmission of the detection device (4),

dynamically incrementing a stack value with the transmitted time interval parameters by means of a filter module (5) of said central processing unit (2), wherein the starting point of an event, which is also the starting point to increment a new stack, is triggered due to the proceeding of the catastrophic event, wherein said catastrophic event is measurable based on atmospheric conditions, meteorological conditions, and/or seismic conditions or by parameters assigned to riots, strikes, war, pandemic events and instrument/equipment failures, wherein the end-point of an event ends the incrementation of a specific stack related to the event, and wherein interim periods, in which airspace is not closed in any one location for said event are not measured ~~and~~

activating a failure deployment device (6) by means of the filter module (5) if a threshold, triggered on the incremented stack value, is reached, thereby generating a output signal (61) to an automated activatable damage covering system operated or steered by the output signal to provide interruption cover of the aircraft fleet (81,...,84) during at least a part of said time interval of said airport closing by means of an automated damage covering system (7).

10. Method according to claim 9, wherein setting said threshold, triggered on the incremented stack value, to bigger-equal 5 and smaller-equal 10 days.

11. Method according to one of the claims 9 or 10, wherein generating said output signal (61) only, if said transmission comprises a definable minimum number of airport identifications (1012, 2012) assigned to airports (91,...,94) with airport closings thus creating an implicit geographic spread of the closed airports (91,...,94) of the flight plan (102,202).

12. Method according to one of the claims 9 to 11, wherein generating said output signal for a scalable automated damage covering of the aircraft fleet (41,...,44) with an definable upper coverage limit.

13. Method according to claim 12, wherein setting said upper coverage limit to smaller-equal US$ 100 million.

14. Method according to one of the claims 9 to 13, wherein realizing the automated damage covering system by means of a resource-pooling system integrated to the avionic system (1), and sharing by means of the resource-pooling system flight interruption risks for of a variable number of aircraft fleets (41,...,44) and/or aircraft operators by providing a self-sufficient risk protection for a risk exposure of the aircraft fleets (41,...,44) and/or aircraft operators by means of the resource-pooling system.

15. Method according to claim 14, wherein processing risk related aircraft fleet data by means of an assembly module and providing the likelihood for said risk exposure a pooled aircraft fleet (41,...,44) based on the risk related aircraft fleet data, wherein connecting the aircraft fleets (41,...,44) to the resource-pooling system by means of a plurality of payment receiving modules configured to receive and store payments from said pooled aircraft fleets (41,...,44) for the pooling of their risks and wherein automatically scaling the payments based on the likelihood of said risk exposure of a specific aircraft fleet (41,...,44).

16. Method according to one of the claims 9 to 15, wherein the filter module (5) of said central processing unit (2) comprises an additional trigger device triggering if said transmission from the detection device (4) is induced by an applicable third party, whereas if the airport closing is third-party induced dynamically increments

the stack with the transmitted time interval parameters (1011, 2011) and otherwise leaves the stack unchanged.