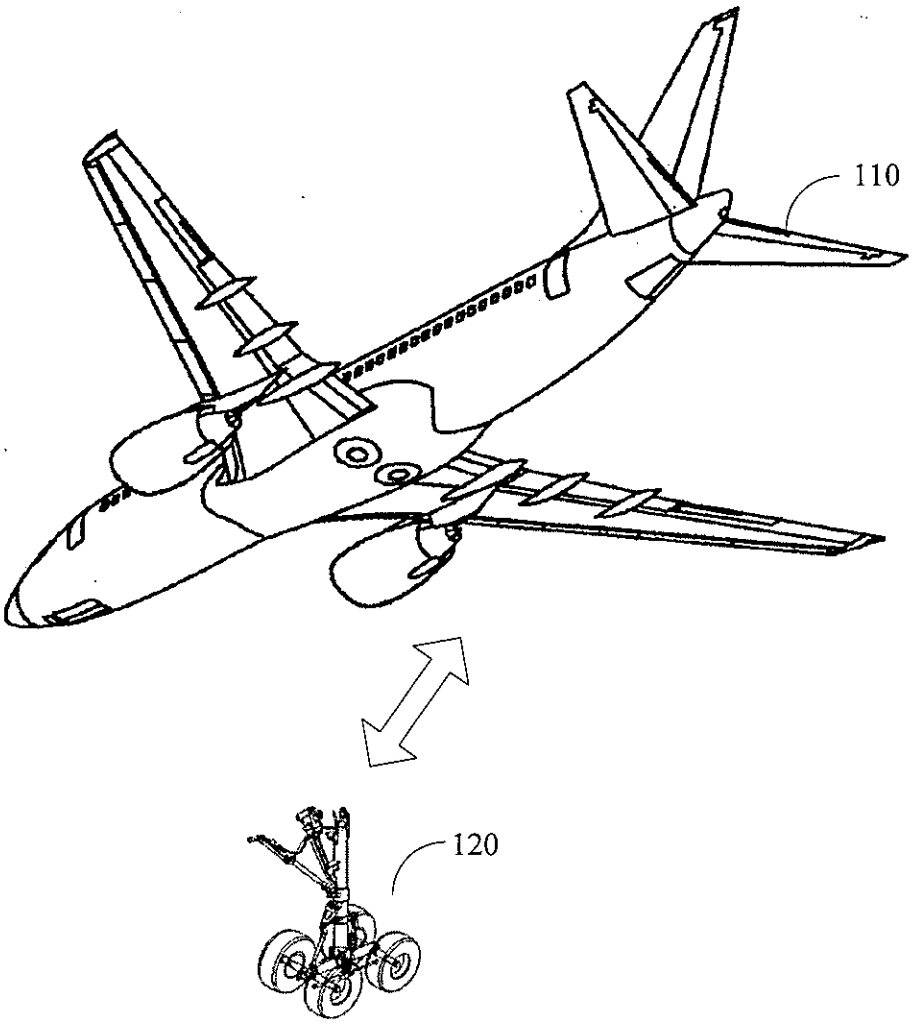


Fig.1

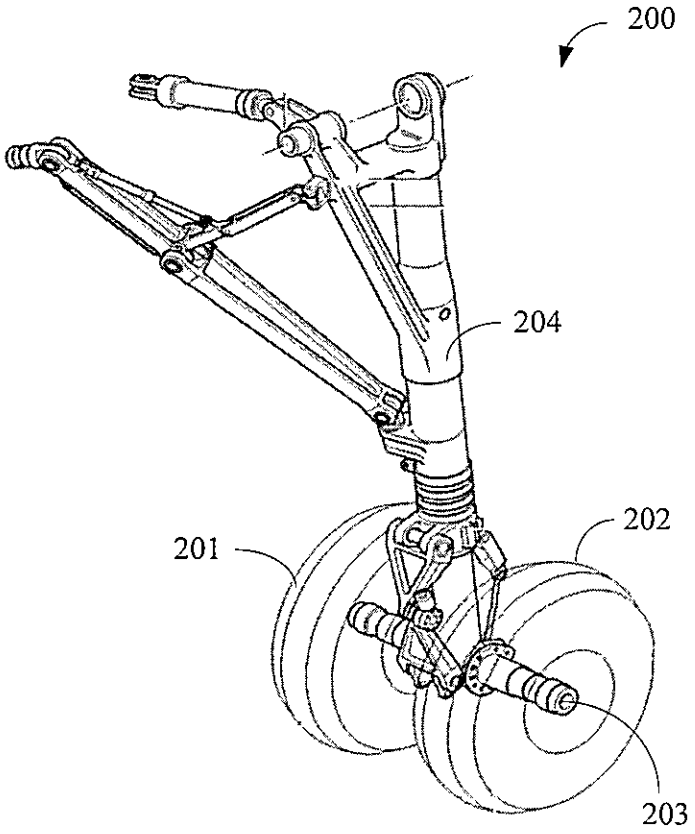


Fig.2

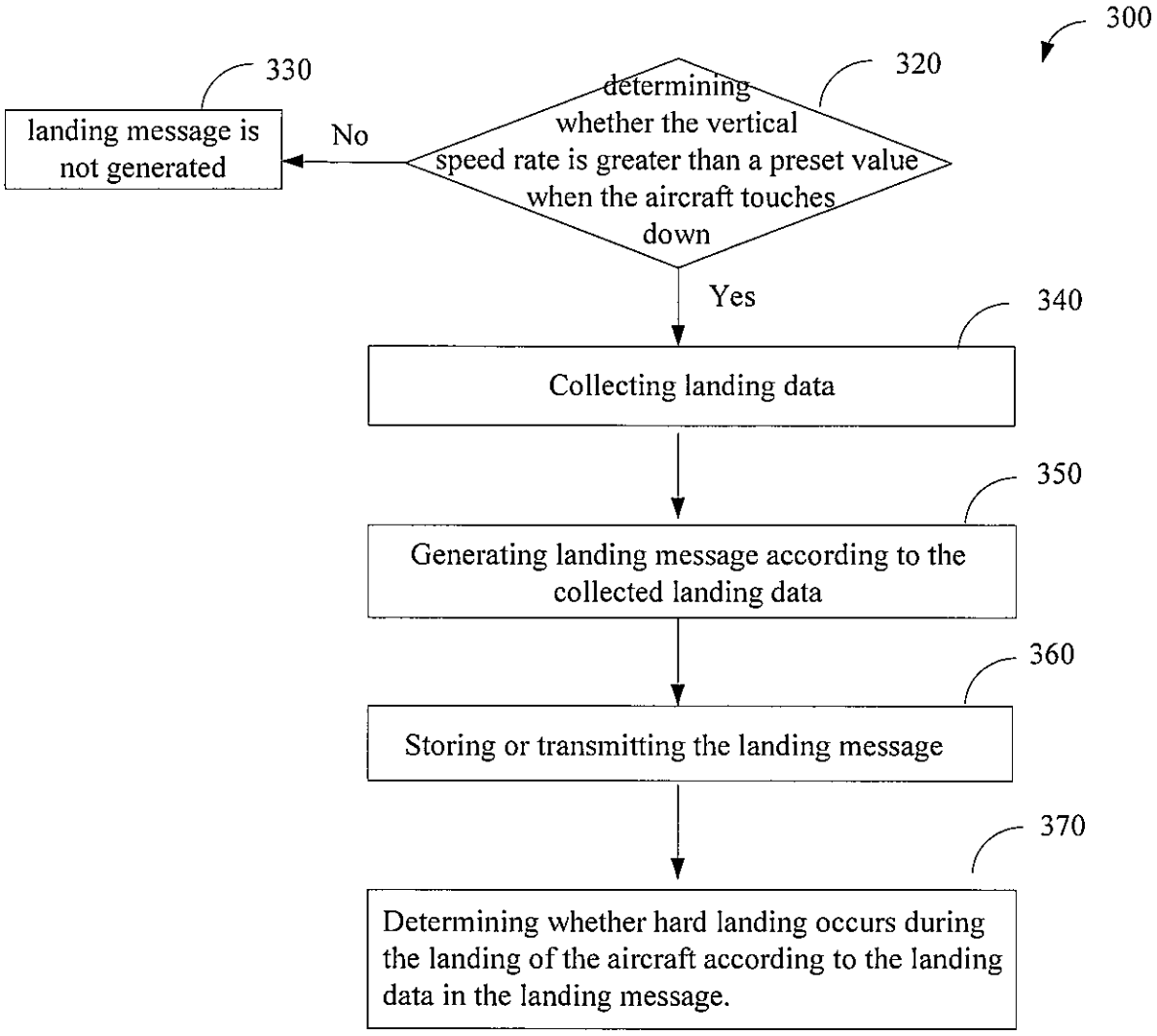

300
330
landing message is not generated
No
320
determining whether the vertical speed rate is greater than a preset value when the aircraft touches down
Yes
340
Collecting landing data
350
Generating landing message according to the collected landing data
360
Storing or transmitting the landing message
370
Determining whether hard landing occurs during the landing of the aircraft according to the landing data in the landing message.

Fig.3

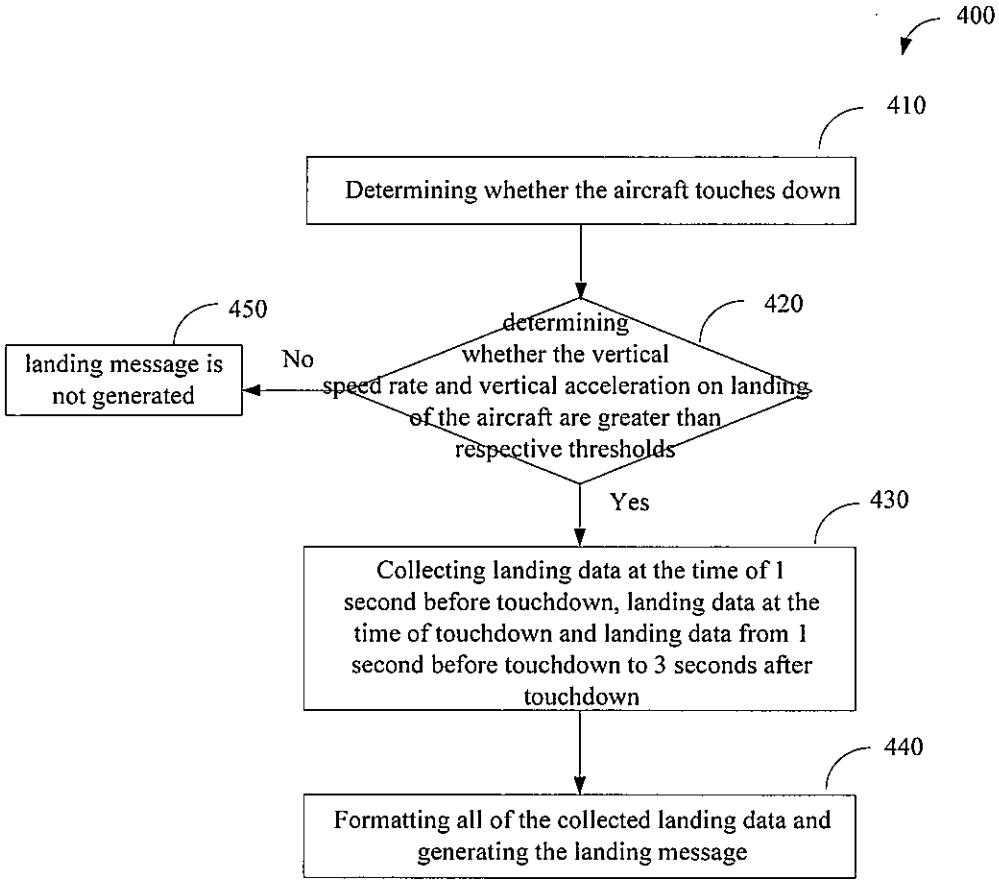

400
410
Determining whether the aircraft touches down
420
determining whether the vertical speed rate and vertical acceleration on landing of the aircraft are greater than respective thresholds
No
450
landing message is not generated
Yes
430
Collecting landing data at the time of 1 second before touchdown, landing data at the time of touchdown and landing data from 1 second before touchdown to 3 seconds after touchdown
440
Formatting all of the collected landing data and generating the landing message

Fig.4

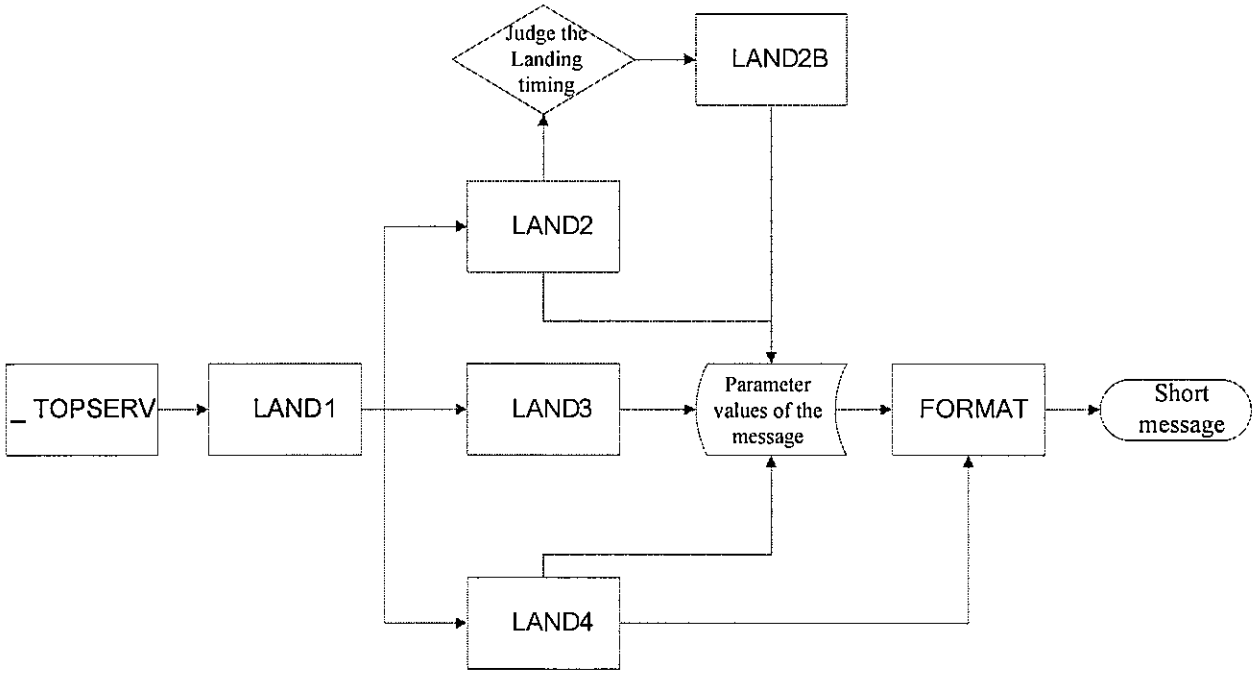

Judge the Landing timing
LAND2B
LAND2
_TOPSERV
LAND1
LAND3
Parameter values of the message
FORMAT
Short message
LAND4

Fig.5

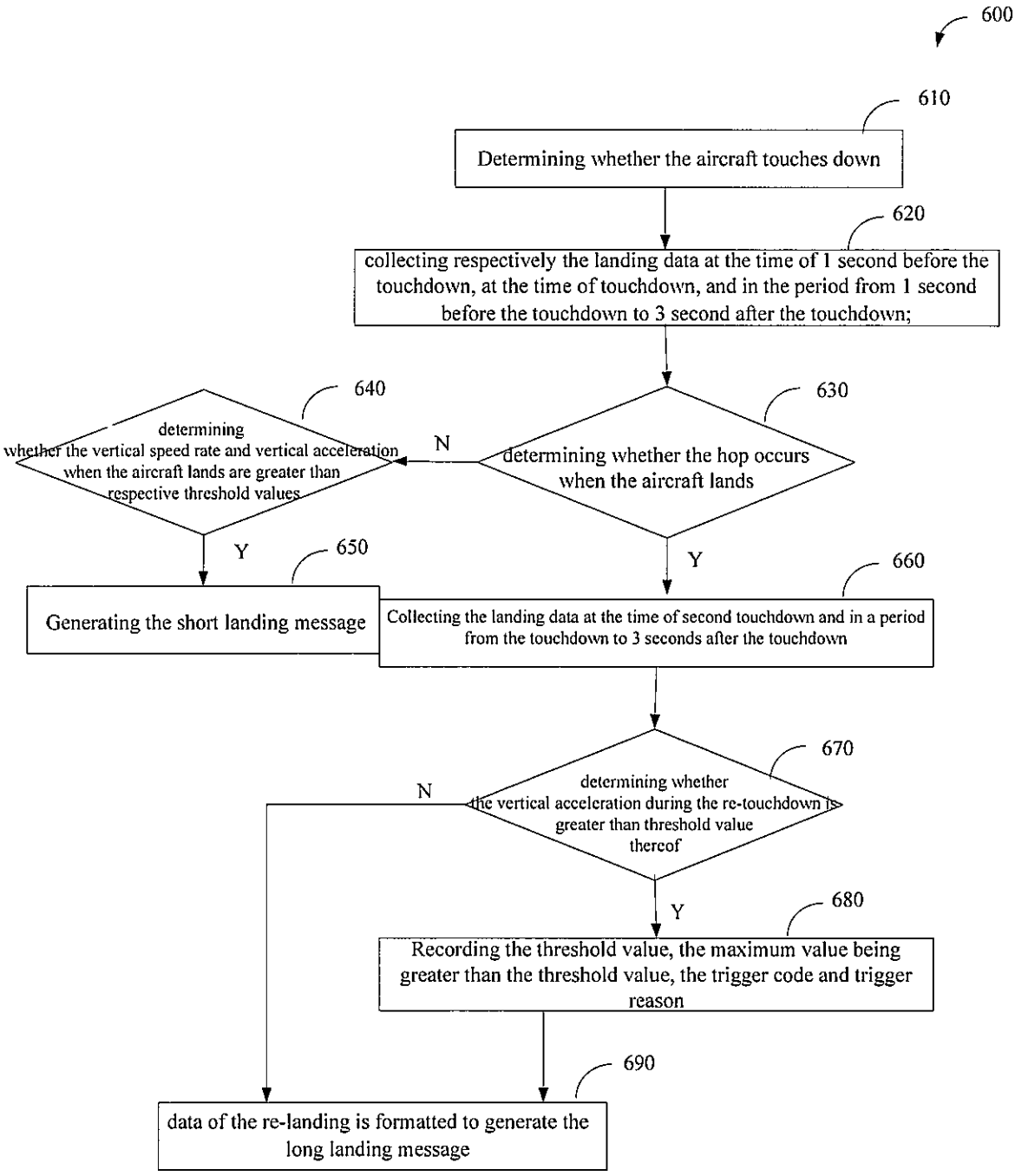

600
610
Determining whether the aircraft touches down
620
collecting respectively the landing data at the time of 1 second before the touchdown, at the time of touchdown, and in the period from 1 second before the touchdown to 3 second after the touchdown;
630
determining whether the hop occurs when the aircraft lands
N
640
determining whether the vertical speed rate and vertical acceleration when the aircraft lands are greater than respective threshold values
Y
650
Generating the short landing message
Y
660
Collecting the landing data at the time of second touchdown and in a period from the touchdown to 3 seconds after the touchdown
670
determining whether the vertical acceleration during the re-touchdown is greater than threshold value thereof
N
Y
680
Recording the threshold value, the maximum value being greater than the threshold value, the trigger code and trigger reason
690
data of the re-landing is formatted to generate the long landing message

Fig.6

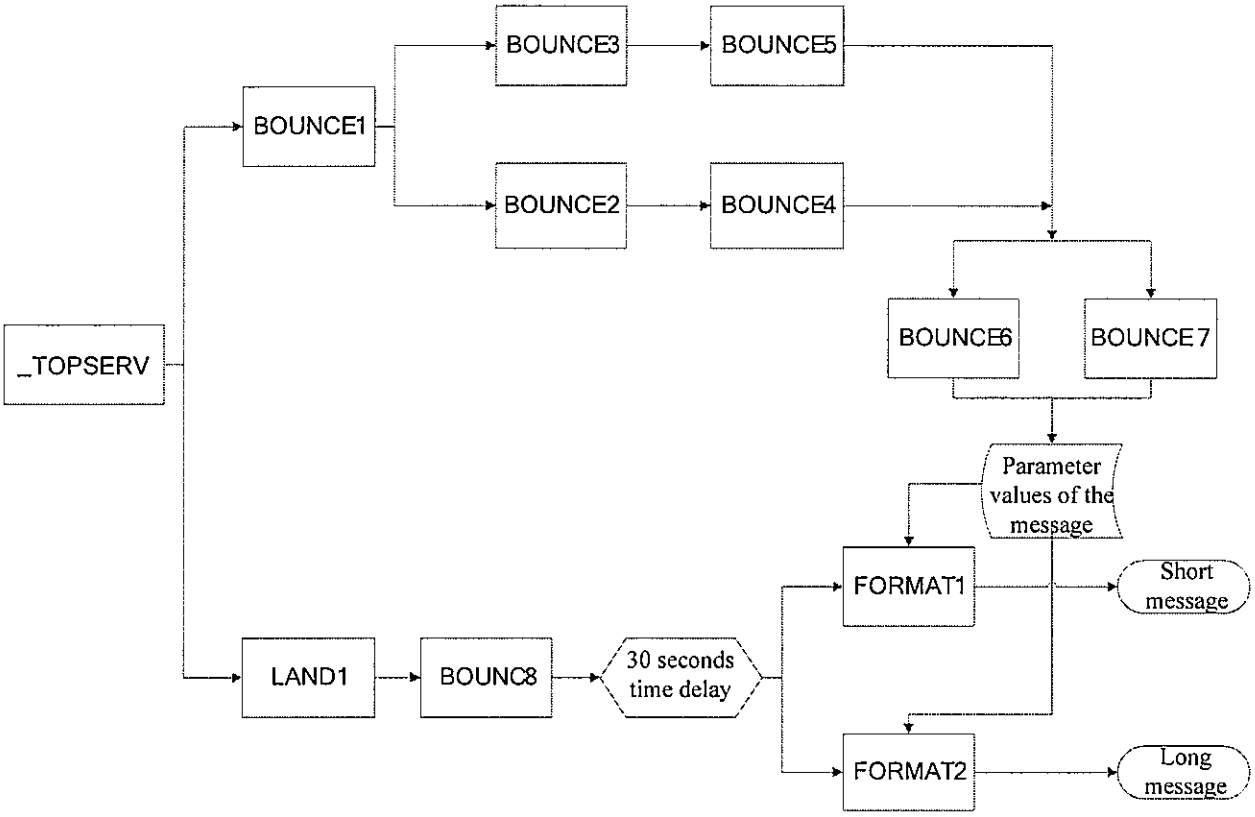

BOUNCE3
BOUNCE5
BOUNCE1
BOUNCE2
BOUNCE4
BOUNCE6
BOUNCE7
_TOPSERV
Parameter values of the message
FORMAT1
Short message
LAND1
BOUNC8
30 seconds time delay
FORMAT2
Long message

Fig.7

LOAD REPORT <530>

	A/C ID	DATE UTC		FROM	TO	FLT	
	Aircraft No.	UTC Time		Taking off	Landing	Flight No.	
CC	BXXXX	yyyy-dd-mm xx:xx:xx		-	-	-	
	PH	CNT	CODE	BLEEDSTATUS		APU	
	Flight phase	Count	Trigger code			APU Bleed Air valve	
C1	07	490	4101	56 0011 0 1100 56		X	
	TAT	ALT	CAS	MN	GW	CG	DMU
	Total air temperature	Altitude	Calculate Air Speed	Mach Speed	Gross Weight	Gravity Center	Version
CE	0215	00073	121	184	5459	30.9	I71CA1
	ESN	EHRS	AP	FLAP	SLAT		
	Engin No.	Engine Hour	Automatic Piloting				
EC	-	00855	06	3900	2700		
EE	-	00855	06	3900	2699		

MIT EXCEEDANCE AND SPOILER EXT SUMMARY

	MAX	LIM	COUNTS			
N1	S~.Z	S~.Z				
E1	-015	-005	000	000	000	000

REASON: CUSTOMER

VALUES AT 1 SEC BEFORE LAND/EVENT

	RALT	RALR	PTCH	PTCR	ROLL	ROLR	YAW
N2	SZZZ	S~.Z	S~.Z	S~.Z	S~.Z	S~.Z	S~.Z
S1	0002	-044	0048	-001	-012	0000	-005

VALUES AT LAND/EVENT

S2	-00	-018	0047	-015	0000	-040	-002

MAX/MIN 1 SEC TO 3 SEC INTERVAL

	VRTA	LONA	LATA
	Vertical load	Longitudinal load	Lateral load
N3	SZ.ZZ	SZ.ZZ	SZ.ZZ
S3	0164	0011	0021
S4	0061	-010	-007

Fig.8

LOAD REPORT <530>

	A/C ID	DATE UTC		FROM	TO	FLT	
	Aircraft No.	UTC Time		Taking off	Landing	Flight No.	
CC	BXXXX	yyyy-dd-mm xx:xx:xx		-	-	-	
	PH	CNT	CODE	BLEEDSTATUS		APU	
	Flight phase	Count	Trigger code			APU Bleed Air valve	
C1	07	490	4101	56 0011 0 1100 56		X	
	TAT	ALT	CAS	MN	GW	CG	DMU
	Total air temperature	Altitude	Calculate Air Speed	Mach Speed	Gross Weight	Gravity Center	Version
CE	0215	00073	121	184	5459	30.9	I71CA1
	ESN	EHRS	AP	FLAP	SLAT		
	Engin No.	Engine Hour	Automatic Piloting				
EC	-	00855	06	3900	2700		
EE	-	00855	06	3900	2699		

MIT EXCEEDANCE AND SPOILER EXT SUMMARY

	MAX	LIM	COUNTS				
E1	2.65	2.6	000	000	000	000	
	REASON:	VRTA					

VALUES AT 1 SEC BEFORE LAND/EVENT

	RALT	RALR	PTCH	PTCR	ROLL	ROLR	YAW
S1	0002	-110	0048	-001	-012	0000	-005

VALUES AT LAND/EVENT

S2	-00	-072	0047	-015	0000	-040	-002

MAX/MIN 1 SEC TO 3 SEC INTERVAL

	VRTA	LONA	LATA
	Vertical load	Longitudinal load	Lateral load
S3	0207	0031	0042
S4	0089	-011	-009

VALUES AT 1 SEC BEFORE BOUNCED

	RALT	RALR	PTCH	PTCR	ROLL	ROLR	YAW
T1	0002	042	0047	-001	-011	0000	-005

VALUES AT BOUNCED

T2	-00	-015	0047	-015	0000	-040	-002

MAX/MIN 1 SEC TO 3 SEC INTERVAL

	VRTA	LONA	LATA
T3	0265	0010	0010
T4	0060	-010	-007

Fig.9