

Docket No.: SA-510

Exhibit No.: 9J

NATIONAL TRANSPORTATION SAFETY BOARD

Washington, D.C.

NASA Aviation Safety Reporting System (ASRS)

Quick Response No. 264

Boeing 737 Type Wing Component Reports

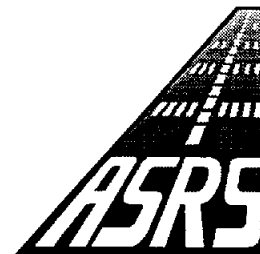
Quick Response No. 264

*B737-Type Wing Component
Reports*

September 15, 1994



Aviation Safety Reporting System
625 Ellis St. Suite 305 Mountain View California 94043



**Battelle***Putting Technology To Work*

ASRS Office
625 Ellis Street
Suite 305
Mountain View, California 94043
Telephone (415) 969-3969

September 15, 1994

Mr. Charles Hedges, ASP-1
Federal Aviation Administration
400 7th Street, S.W.
Room 2228
Washington, DC 20590

Dear Chuck:

QUICK RESPONSE NO. 264: "B737-TYPE WING COMPONENT REPORTS"

In response to your request of NASA's Aviation Safety Reporting System, we have enclosed data breakdown of B737-type aircraft wing component reports from January 1, 1989 through April 30, 1994. We have also enclosed a printout of 184 B737-type reports broken down into the following categories: aileron incidents (5 reports), APU incidents (19 reports), auto flight incidents (6 reports), auto pilot incidents (30 reports), elevator incidents (1 report), engine vibration incidents (35 reports), flap incidents (32 reports), ground spoiler incidents (6 reports), horizontal stabilizer incidents (6 reports), rudder/yaw damper incidents (26 reports), slat incidents (4 reports), speed brake incidents (1 report), spoiler incidents (7 reports), thrust reverser incidents (3 reports), trim tab incidents (2 reports), wing body overheat incidents (1 report).

These reports were screened from a total of 337 B737-type reports. The 184 reports were analyzed by a team of experienced air carrier analysts to ensure relevancy. Attached is an explanation of the coded information contained in your printout.

At the time of this search, the ASRS database contained 46,798 full-form records received since January 1, 1986. There were also 117,772 abbreviated-form records in the database, but since incidents involving the above-mentioned topics are not identifiable in these records, they were excluded from the search.

Please bear in mind that the ASRS did not retain aircraft make-model identities in its database before January 1, 1994. Thus, with the exception of reports with occurrence dates on or after January 1, 1994, we cannot confirm that the reports in the enclosed printout relate to B737 aircraft. The search strategy used for this printout sought reports involving aircraft identified by two engines, two-man crew, and in the weight classifications of 60,001-150,000 lbs. Therefore, it is possible that some of the involved aircraft were other BAC 111, DC-9 or MD-80 series aircraft. It should also be remembered that ASRS reports are submitted voluntarily and are subject to self-reporting biases. In many instances, reported occurrences have not been corroborated by FAA or NTSB investigations.

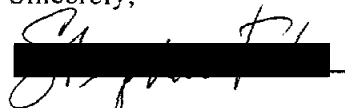
Mr. Charles Hedges
Federal Aviation Administration

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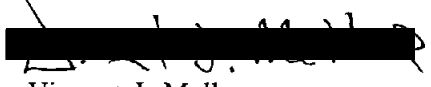
September 15, 1994

We hope you find this information useful for your purposes. Please note with care the attached caveat regarding statistical use of ASRS information and the point Mr. Reynard makes in his covering memorandum to recipients. We would appreciate any comments you have regarding the value of this service. If we can be of further assistance, please do not hesitate to contact us at (415) 969-3969.

Sincerely,



Stephanie M. Frank
ASRS Researcher



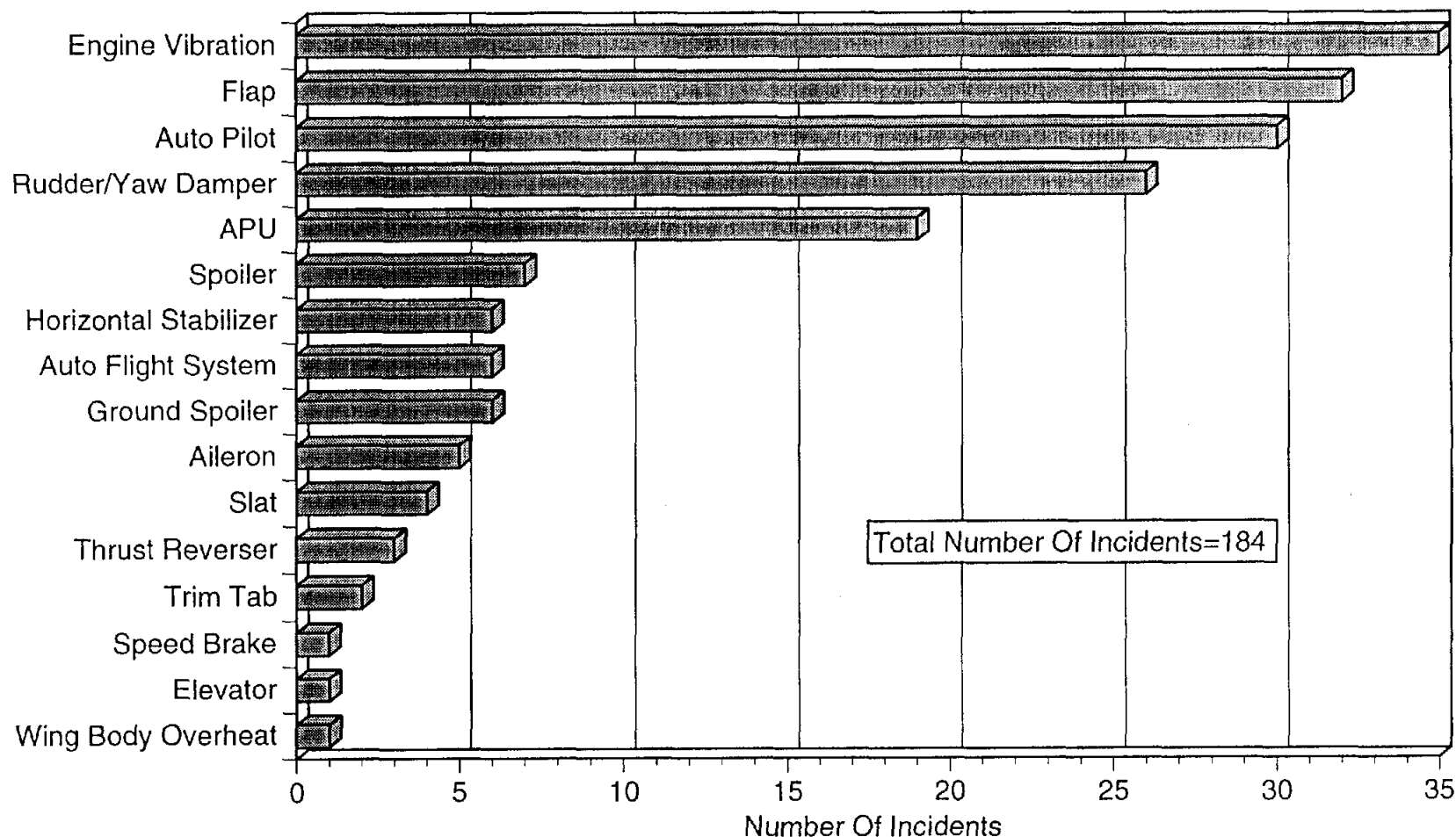
Vincent J. Mellone
ASRS Deputy Program Manager

SMF

Enclosures

B737-Type Wing Component Problems*

January 1989 - April 1994



* Categories are not mutually exclusive.

B737-type aircraft references 60,001-150,000 lbs, 2-engine, turbojet, 2-man crew aircraft.



Reply to Attn of: FL:262-1

MEMORANDUM FOR: Recipients of Aviation Safety Reporting System Data

SUBJECT: Data Derived from ASRS Reports

The attached material is furnished pursuant to a request for data from the NASA Aviation Safety Reporting System (ASRS). Recipients of this material are reminded of the following points which must be considered when evaluating these data.

ASRS reports are submitted voluntarily. The existence in the ASRS database of reports concerning a specific topic cannot, therefore, be used to infer the prevalence of that problem within the national aviation system.

Reports submitted to ASRS may be amplified by further contact with the individual who submitted them, but the information provided by the reporter is not investigated further. Such information may or may not be correct in any or all respects. At best, it represents the perception of a specific individual who may or may not understand all of the factors involved in a given issue or event.

After preliminary processing, all ASRS reports are deidentified. There is no way to identify the individual who submitted a report. All ASRS records systems are designed to prevent any possibility of identifying individuals submitting, or other names, in ASRS reports. There is, therefore, no way to verify information submitted in an ASRS report after it has been deidentified.

The National Aeronautics and Space Administration and its ASRS contractor, Battelle Memorial Institute, specifically disclaim any responsibility for any interpretation which may be made by others of any material or data furnished by NASA in response to queries of the ASRS database and related materials.



William Reynard, Director
Aviation Safety Reporting System

CAVEAT REGARDING STATISTICAL USE OF ASRS INFORMATION

Certain caveats apply to the use of ASRS statistical data. All ASRS reports are voluntarily submitted, and thus cannot be considered a measured random sample of the full population of like events. For example, we receive several thousand altitude deviation reports each year. This number may comprise over half of all the altitude deviations which occur, or it may be just a small fraction of total occurrences. We have no way of knowing which.

Moreover, not all pilots, controllers, air carriers, or other participants in the aviation system, are equally aware of the ASRS or equally willing to report to us. Thus, the data reflect **reporting biases**. These biases, which are not fully known or measurable, distort ASRS statistics. A safety problem such as near midair collisions (NMACs) may appear to be more highly concentrated in area "A" than area "B" simply because the airmen who operate in area "A" are more supportive of the ASRS program and more inclined to report to us should an NMAC occur.

Only one thing can be known for sure from ASRS statistics—they represent the **lower measure** of the true number of such events which are occurring. For example, if ASRS receives 300 reports of track deviations in 1993 (this number is purely hypothetical), then it can be known with certainty that at least 300 such events have occurred in 1993.

Because of these statistical limitations, we believe that the **real power** of ASRS lies in the **report narratives**. Here pilots, controllers, and others, tell us about aviation safety incidents and situations in detail. They explain what happened, and more importantly, **why** it happened. Using report narratives effectively requires an extra measure of study, the knowledge derived is well worth the added effort.

For a text on the strengths and limitations of incident data, the process of using incidents for human factors evaluations, statistical analysis methods and other sources of incident data, see:

Chappell, S.L. (1994). Using voluntary incident reports for human factors evaluations. In N. Johnston, N. McDonald & R. Fuller (Eds.), *Aviation Psychology in Practice*. Aldershot, England: Ashgate.

Your printout from the ASRS includes information on the following categories. Please note—each entry in a category is separated by a semicolon (e.g., two SMAs in one incident would be coded as "SMA;SMA;" in the Aircraft Type category.

Accession Number - a unique, sequential number assigned to each report.

Date of Occurrence - the date of the occurrence/situation in the form of a year and a month; e.g., 9304 represents April 1993.

Reported by - role of the person who reported the occurrence/situation. Codes used are: FLC—flight crew; PLT—pilot; CRM—crew member; CTLR—Air Traffic Controller; PAX—passenger; OBS—observer; AFC (or AIR)—Air Force; NVY—Navy; UNK—unknown.

Persons Functions - description of a person's function at the time of the occurrence. Codes used are:

FLC	PIC	-	Pilot in command as determined by official designation, prior consensus, or actually controlling the aircraft			
	CAPT	-	Captain role in a multi-person flight crew			
	FO	-	First Officer/Copilot role in a multi-person flight crew			
	SO	-	Second Officer/Flight Engineer role in a multi-person flight crew			
	OTH	-	Additional crew member (e.g., navigator) in a multi-person flight crew			
	CKP	-	Check pilot (essential flight crew member occupying a crew position/role)			
	ISTR	-	Legally qualified flight instructor who is giving instruction at the time of the occurrence/situation			
	PLT	-	Pilot in a single-person crew			
TRNEE	-	Flight crew member in training.				
<hr/>						
TWR	LC	-	Local controller	COORD	-	Coordinator position
	GC	-	Ground controller	CD	-	Clearance delivery
	FD	-	Flight data position	SUPVR	-	Supervisor
	OTH	-	Other	TRNEE	-	Trainee
<hr/>						
TRACON	AC	-	Approach controller	COORD	-	Coordinator position
	DC	-	Departure controller	SUPVR	-	Supervisor
	RHO	-	Radar hand-off position	OTH	-	Other
	FD	-	Flight data position	TRNEE	-	Trainee
<hr/>						
ARTCC	M	-	Manual controller	COORD	-	Coordinator position
	R	-	Radar controller	SUPVR	-	Supervisor
	H	-	Hand-off position	OTH	-	Other
	D	-	Assistant or data man	TRNEE	-	Trainee
<hr/>						
MIL	PAR	-	Precision approach radar	OTH	-	Other
	RSU	-	Runway supervisory unit			
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MISC	FSS	-	Flt service station specialist	DISP	-	Dispatcher
	ACI	-	Air carrier inspector	CENR	-	Company enroute check personnel
	UNI	-	Unicom operator			
	FBO	-	Fixed base operator/employee	TADV	-	Tower advisory
	CAB	-	Cabin attendant	AMGR	-	Airport manager
	VD	-	Vehicle driver	OBS	-	Observer
	P AX	-	Passenger	SUPVR	-	Supervisor
	CGP	-	Company ground personnel	OTH	-	Other

Flight Conditions - the weather environment at the time of the occurrence or situation in terms of the conventional definition for flight conditions. Codes used are: VMC—visual meteorological conditions; IMC—instrument meteorological conditions; MXD—mixed flight conditions (both VMC and IMC); MVI—marginal VFR; SVF—special VFR.

Reference Facility ID (or LOC ID) - the standard three-letter (or letter-number combination) location identifier associated with an airport or navigational facility as referenced in the FAA Order 7350.5Z series entitled "Location Identifiers."

Facility Identifier - the standard three-letter (or letter-number combination) location identifier associated with an ATC facility as referenced in the FAA Order 7350.5Z series entitled "Location Identifiers."

Aircraft Type - the aircraft type involved in the incident differentiated by arbitrary gross takeoff weight ranges (military aircraft type are differentiated by function). Codes used re:

SMA	-	small aircraft (less than 5000 lbs)
SMT	-	small transport (5001 - 14,500 lbs)
LTT	-	light transport (14,501 - 30,000 lbs)
MDT	-	medium transport (30,001 - 60,000 lbs)
MLG	-	medium large transport (60,001 - 150,000 lbs)
LRG	-	large transport (150,001 - 300,000 lbs)
HVT	-	large transport (over 300,000 lbs)
WDB	-	wide-body (over 300,000 lbs)
ULT	-	ultralight (including hang gliders)
SPN	-	sailplane/glider
SPC	-	special purpose
FGT	-	fighter
BMB	-	bomber
MLT	-	military transport
MTR	-	military trainer

Anomaly (Descriptions, Detector, Resolution, Consequences) - short summary of a standard chain of sub-events within a reported incident.

Situation Report Subjects - description(s) of a static hazard which creates a safety problem.

ANOMALY DEFINITIONS

ACFT EQUIPMENT PROBLEM/CRITICAL - Aircraft equipment problem that is vital to the safety of the flight.

ACFT EQUIPMENT PROBLEM/LESS SEVERE - Not qualifying as a critical aircraft equipment problem.

ALT DEVIATION - A departure from or failure to attain or failure to maintain an ATC assigned altitude. It does not include an injudicious or illegal altitude in VFR flight where no altitude has been assigned by ATC or specified in pertinent charts.

ALT DEV/OVERSHOOT - An aircraft climbs or descends through the assigned altitude.

ALT DEV/UNDERSHOOT ON CLB OR DES - An aircraft fails to reach an assigned altitude during climb or descent.

ALT DEV/EXCURSION FROM ASSIGNED - An aircraft departs from level flight at an assigned altitude.

ALT DEV/XING RESTRICTION NOT MET - Charted or assigned altitude crossing restriction is not met.

ALT-HDG RULE DEVIATION - Cruise flight contrary to the altitudes specified in FAR 91.159.

CONFLICT/NMAC (NEAR MIDAIR COLLISION) - A conflict is defined as the existence of a perceived separation anomaly such that the pilot(s) of one or both aircraft take evasive action; or are advised by ATC to take evasive action; or experience doubt about assurance of continuing separation from the viewpoint of one or more of the pilots or controllers involved. A near midair collision is when the flight crew reports, either directly or as quoted by the controller, that the reported miss distance is less than 500 feet.

CONFLICT/AIRBORNE LESS SEVERE - A conflict not qualifying as a NMAC.

CONFLICT/GROUND CRITICAL - A ground occurrence that involves (1) two or more aircraft, at least one of which is on the ground at the time of the occurrence, or (2) one or more aircraft conflicting with a ground vehicle. The flight crew reports, either directly or as quoted by a controller, that they took evasive action to avoid a collision (emergency action go-around, veering on runway or taxiway, takeoff abort, or emergency braking), and the balance of the report, including the narrative is judged consistent with a critical occurrence.

CONFLICT/GROUND LESS SEVERE - A ground conflict not qualifying as critical.

CONTROLLED FLT TOWARD TERRAIN - Flying at an altitude that would, if continued, result in contact with terrain.

ERRONEOUS PENETRATION OF OR EXIT FROM AIRSPACE - Self-explanatory.

IN-FLT ENCOUNTER/OTHER - In-flight encounter (e.g., bird strikes, weather balloons).

IN-FLT ENCOUNTER/WX - In-flight encounter with weather (e.g., wind shear, turbulence, clouds, high winds, storms).

LESS THAN LEGAL SEPARATION - Less than standard separation between two airborne aircraft (as standard separation is defined for the airspace involved).

LOSS OF ACFT CONTROL - Self-explanatory.

NON-ADHERENCE LEGAL RQMT/CLNC - Non-adherence to an ATC clearance.

NON-ADHERENCE LEGAL RQMT/FAR - Non-adherence to a Federal Aviation Regulation.

NON-ADHERENCE LEGAL RQMT/PUBLISHED PROC - Non-adherence to approach procedure, standard instrument departure, STAR, profile descent, or operational procedure as described in the AIM or ATC facility handbook.

NON-ADHERENCE LEGAL RQMT/OTHER - Non-adherence to SOPs for aircraft, company SOPs, etc.

RWY OR TXWY EXCURSION - An aircraft exits the runway or taxiway pavement.

RWY TRANSGRESS/OTHER - The erroneous or improper occupation of a runway or its immediate environs by an aircraft or other vehicle so as to pose a potential collision hazard to other aircraft using the runway, even if no such other aircraft were actually present.

RWY TRANSGRESS/UNAUTH LNDG - A runway transgression specifically involving landing without a landing clearance or landing on the wrong runway.

SPEED DEVIATION - Aircraft speed contrary to FARs or controller instruction.

TRACK OR HDG DEVIATION - Self-explanatory.

UNCTRL ARPT TRAFFIC PATTERN DEVIATION - Failure to fly the prescribed rectangular pattern or failure to enter on a 45 degree angle to the downwind leg.

VFR IN IMC - Flight conducted under Visual Flight Rules (VFR) into Instrument Meteorological Conditions (IMC) when not on an instrument flight plan and/or when not qualified to fly under Instrument Flight Rules (IFR).

B737-Type Aircraft Aileron Reports

11

ACCESSION NUMBER : 236380
 DATE OF OCCURRENCE : 9303
 REPORTED BY : FLC; ;
 PERSONS FUNCTIONS : FLC,PIC.CAPT; FLC,FO; MISC,OTH;
 REFERENCE FACILITY ID : EWR
 FACILITY STATE : NJ
 FACILITY TYPE : ARPT; TWR;
 FACILITY IDENTIFIER : EWR; EWR;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : ACFT EQUIPMENT PROBLEM/CRITICAL;
 ANOMALY DETECTOR : COCKPIT/FLC;
 ANOMALY RESOLUTION : FLC OVERCAME EQUIP PROBLEM; NOT
 RESOLVED/ANOMALY ACCEPTED; OTHER;
 ANOMALY CONSEQUENCES : FAA INVESTIGATORY FOLLOW-UP;
 SITUATION REPORT SUBJECTS : AN ACFT TYPE; ACFT EQUIPMENT;
 NARRATIVE : AFTER TAKING OFF FROM EWR ARPT, I FOUND

THE ACFT HARD TO CTL. FOUND THE L **AILERON** LOCKED IN THE UP POS. ACFT BECAME MORE DIFFICULT TO CTL THE SLOWER WE GOT. BY THE TIME WE GOT ON SHORT FINAL, I HAD FULL R **AILERON** WITH L **RUDDER** AND EXCESS PWR TO KEEP ON A STRAIGHT COURSE. AFTER LNDG, WE FOUND THE **AILERON** CABLE BROKEN. AT THIS TIME THE NTSB IS CHKING ON THIS PROB. CALLBACK CONVERSATION WITH RPTR REVEALED THE FOLLOWING INFO: THE FIRST THING THAT THE NTSB INVESTIGATOR, AND THIS ANALYST, ASKED THE RPTR WAS 'DID THE CTLS CHK OUT ON PREFLT?' YES, THEY DID. THE REASON THAT THE RPTR SENT IN HIS RPT TO ASRS IS THAT HE THOUGHT THAT HE HAD FAILED TO SIGN THE LOGBOOK AFTER THE INCIDENT AND HE WANTED TO COVER HIS ANATOMY (HE DID SIGN THE LOGBOOK). THE L DOWN **AILERON** CABLE BROKE IN THE WHEEL WELL (THE OTHER ONE WAS ABOUT TO BREAK) CAUSING THE L **AILERON** TO GO FULL UP. THE CTL WAS EASIER AT HIGHER SPD THAN AT LNDG PATTERN SPDS. THERE WAS NO APPARENT BLOW- DOWN WITH INCREASING SPD. THE CABLE DID NOT BREAK AT THE END WHERE THERE MIGHT HAVE BEEN A MANUFACTURING DEFECT, BUT 'IN THE MIDDLE' BEHIND A PULLEY IN THE WHEEL WELL. THIS INCIDENT HAPPENED AFTER A VERY BIG STORM AT EWR AND THE NTSB FOUND ICE IN THE WHEEL WELL. THE RPTR STATES THAT HE HAD TO USE FULL R **AILERON** AND DIFFERENTIAL PWR TO KEEP THE WINGS LEVEL AT LNDG SPDS. THE RPTR IS SURPRISED THAT THE FAA HAS HAD NO CONTACT WITH HIM (IT HAS BEEN A MONTH), AND THAT NO EMER AIRWORTHINESS DIRECTIVE HAS BEEN ISSUED TO CHK OTHER MLG'S IN SVC.

SYNOPSIS : THE L DOWN **AILERON** CABLE BROKE ON AN
 ACR MLG CAUSING CTL PROBS.

REFERENCE FACILITY ID : EWR
 FACILITY STATE : NJ
 MSL ALTITUDE : 8000,8000
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : NON;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : TKOF,ICLB;
 SPECIAL ROUTE : ;
 AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 239759
 DATE OF OCCURRENCE : 9304
 REPORTED BY : GNDCREW; GNDCREW; GNDCREW; GNDCREW; ;
 PERSONS FUNCTIONS : MISC,GNDCREW; MISC,GNDCREW; MISC,
 GNDCREW; MISC,GNDCREW; MISC,OTH;
 REFERENCE FACILITY ID : IND
 FACILITY STATE : IN
 FACILITY TYPE : ARPT;
 FACILITY IDENTIFIER : IND;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : ACFT EQUIPMENT PROBLEM/CRITICAL; NON
 ADHERENCE LEGAL RQMT/PUBLISHED PROC; NON ADHERENCE LEGAL RQMT/FAR;
 ANOMALY DETECTOR : COCKPIT/FLC;
 ANOMALY RESOLUTION : NOT RESOLVED/DETECTED AFTER-THE-FACT;
 ANOMALY CONSEQUENCES : FAA INVESTIGATORY FOLLOW-UP;
 SITUATION REPORT SUBJECTS : PROC OR POLICY/COMPANY; AN ACFT TYPE;
 ACFT EQUIPMENT;

NARRATIVE : MYSELF AND 3 OTHER MECHS WERE DOING AND
 LEARNING THE JOB CARD (TEST SERVO VALVE STICKING SWITCH). BEING
 THE FACT WE HAD NEVER PERFORMED SUCH TEST ON THE MLG BEFORE, WE
 ASKED OTHER MECHS WHO HAD. THEY ALL SAID TO INSTALL THE RIG PIN IN
 UNTIL YOU HEAR A SNAP. THAT WE DID AND THE MECH IN THE COCKPIT ON
 2-WAY RADIO TOLD US ON THE GND THAT THE CHK FUNCTIONED CORRECTLY
 ACCORDING TO THE JOB CARD PROCS. IT WAS I WHO INSERTED THE RIG PIN
 INTO THE R SIDE WHILE ANOTHER MECH DID THE L SIDE. I FEEL THAT THE
 JOB CARD AND URGENCY OF FORMAL, ON THE JOB TRAINING IS LACKING AND
 THIS CAUSED THE QUESTIONS OF MECHS DOING THE FUNCTIONAL CHK. AT A
 LATER DATE I WAS INFORMED THAT THE ACFT RETURNED WITH **AILERON**
 PROBS. PLTS DISCREPANCY IS LISTED BELOW. ITEM: UPON RELEASING THE
 CTL LOCK THE **AILERONS** WENT TO FULL R **AILERON**. USING A GREAT AMOUNT
 OF FORCE YOU CAN BRING THE **AILERONS** TO NEUTRAL BUT NOT PUT IN ANY
 L **AILERON**. RETURNED TO GATE AFTER TAXI OUT. SUPPLEMENTAL
 INFORMATION FROM ACN 240116: I FEEL VERY STRONGLY THAT OUR CHK
 CARD IS VERY VAGUE IN TELLING HOW TO INSERT THE PIN. IT ONLY SAYS
 TO SIMPLY 'INSERT RIG PIN.' THE PIN USED IS A THREADED BOLT? HOW
 FAR? HOW TIGHT? IT MAKES NO MENTION OF THIS AT ALL. I AM TOLD THAT
 MANY OF OUR WORK CARDS ARE BEING REVISED SO WE CAN GET ACCURATE
 INFO FROM THEM. SUPPLEMENTAL INFORMATION FROM ACN 239757: THE
 REPRESENTATIVES WERE LOOKING INTO FINDING THE CORRECT RIGGING PINS
 FOR THIS TEST. SUPPLEMENTAL INFORMATION FROM ACN 239465: DURING
 THE CHK THE **AILERON** POS WAS FULL L (WOULD NOT NEUTRALIZE AT CTR).
 CALLBACK CONVERSATION WITH REPORTER REVEALED THE FOLLOWING: RPTR
 SAID THE FAA WAS ALREADY ON THE CASE. HE SAID THAT THE RIG PIN HE
 WAS GIVEN WAS THE PROPER ONE, ETCHED WITH THE CORRECT PART NUMBER.
 HE SAID THAT THE IMPROPER INSERTION OF THE PIN RENDERED THE SERVO
 INOP. HE INFERRED THAT TRAINING PROVIDED BY THE ACR WAS
 PRACTICALLY NON-EXISTENT AND SHOULD BE IMPROVED. HE SAID THAT THE
 JOB CARDS, WHICH DESCRIBE MAINT PROCS ARE WOEFULLY INADEQUATE. HE
 THINKS THE FAULT IS IN THE TRANSLATION FROM THE MANUFACTURER'S
 LANGUAGE TO ENGLISH.

SYNOPSIS : FAULTY MAINT PROCS CAUSE THE **AILERON**
 SYS OF AN MLG TO BECOME INOP.
 REFERENCE FACILITY ID : IND
 FACILITY STATE : IN
 AGL ALTITUDE : 0,0
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT, LAND,TURBOJET;
 NUMBER OF ENGINES : 2;

ADVANCED COCKPIT : DISPLAY,NAVCTL;
OPERATOR ORGANIZATION : ACR;
OPERATION : OTH;
FLIGHT PLAN TYPE : ;
FLIGHT PHASE : OTH;
SPECIAL ROUTE : NON;
AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 242457
 DATE OF OCCURRENCE : 9304
 REPORTED BY : FLC; ; ;
 PERSONS FUNCTIONS : FLC,FO; FLC,PIC.CAPT; MISC,DISP; ARTCC,
 RDR;
 FLIGHT CONDITIONS : VMC
 REFERENCE FACILITY ID : FAM
 FACILITY STATE : MO
 FACILITY TYPE : ARTCC; COMRDO;
 FACILITY IDENTIFIER : ZKC; MSP;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : OTHER; ACFT EQUIPMENT PROBLEM/CRITICAL;
 ANOMALY DETECTOR : COCKPIT/FLC;
 ANOMALY RESOLUTION : FLC OVERCAME EQUIP PROBLEM; ACFT EXITED
 ADVERSE ENVIRONMENT; OTHER;
 ANOMALY CONSEQUENCES : NONE;
 SITUATION REPORT SUBJECTS : AN ACFT TYPE; ACFT EQUIPMENT; OTHER;
 NARRATIVE : PASSING FARMINGTON VOR AT 35000 FT,

AUTOPLT WAS SLUGGISH IN ROLL. DISCONNECT **AUTOPLT** FOUND **AILERONS**
 JAMMED IN NEUTRAL POS. WHEEL WOULD ONLY TURN A FEW DEGS WITH MUCH
 EFFORT. CHKED AGAIN FOR **AUTOPLT** RELEASE. DECLARED EMER AND DSNDED
 TO 6000 FT TO WARMER AIR. SUSPECT FROZEN WATER AS CAUSE DUE TO
 RAIN ON DEP FROM MKE. CHKED COCKPIT OPERATING MANUAL FOR JAMMED
 CTLS. TURNED OFF **AILERON** SERVO AS PRECAUTION. NOTIFIED ACR
 DISPATCH OF PROB AND INTENTIONS. **AILERONS** BROKE FREE AT 6000 FT.
 RAT SHOWED PLUS 17 DEGS. LANDED WITHOUT INCIDENT.

SYNOPSIS : THE **AILERONS** ON AN ACR MLG FROZE SOLID
 AFTER SITTING IN A RAIN STORM AND THEN CLBING TO ALT.

REFERENCE FACILITY ID : FAM
 FACILITY STATE : MO
 MSL ALTITUDE : 6000,35000
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : NON;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : CRS,EMER;
 SPECIAL ROUTE : ;
 AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 248944
 DATE OF OCCURRENCE : 9308
 REPORTED BY : FLC; FLC;
 PERSONS FUNCTIONS : FLC,PIC.CAPT; FLC,FO;
 FLIGHT CONDITIONS : MXD
 REFERENCE FACILITY ID : RSW
 FACILITY STATE : FL
 FACILITY TYPE : TRACON; ARPT;
 FACILITY IDENTIFIER : RSW; RSW;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : ACFT EQUIPMENT PROBLEM/CRITICAL; NON
 ADHERENCE LEGAL RQMT/PUBLISHED PROC;
 ANOMALY DETECTOR : COCKPIT/FLC; COCKPIT/EQUIPMENT;
 ANOMALY RESOLUTION : OTHER;
 ANOMALY CONSEQUENCES : OTHER; NONE;
 NARRATIVE : DEPARTED RSW ENRTE TO DFW WITH NUMEROUS

TSTMS, RAINSHOWERS IN THE AREA. FELT HAD PLANNED WELL, CONSIDERED MANY SOLUTIONS TO GETTING FLT AIRBORNE AND SAFELY UNDERWAY. CAPT (SELF) AND PNF HAD BRIEFED WITH FO, PF, ON SPECIFIC DUTIES, TASK, AND RESPONSIBILITIES FOR THE DEP. AFTER TKOF, FO (PF) MADE NORMAL CALLS, EXCEPT FOR 'FLAPS UP.' FLAPS HAD ALREADY BEEN RAISED FROM 5 DEGS TO 1 DEG DURING DEP. BELIEVE FO DELAYED RAISING FLAPS TO '0' DEGS IN ORDER TO IMPROVE MANEUVERABILITY AS WE DEPARTED. SEVERAL QUICK AND TIMELY TURNS WERE REQUIRED TO AVOID SIGNIFICANT RAINSHOWERS. BECAUSE OF WX, DEP PROCS WERE OUT OF SEQUENCE OR DELAYED. FO DID CALL FOR 'AFTER TKOF CHKLIST,' BUT I DELAYED COMPLETION IN ORDER TO MANAGE RADAR AND PLAN RTE TO MINIMIZE ROUGH RIDE AND HVY RAIN. DUE TO TASK SATURATION, WE OVERSPED THE FLAP'S 1 DEG POS BY APPROX 11-14 KTS. ACCELERATED TO 245 KTS (APPROX) WHEN REALIZED HAD NOT RAISED FLAPS TO UP (LIMIT 230 KTS). FLAPS WERE RAISED AND ALL FLT DECK INDICATIONS WERE NORMAL. APPROX 20 MINS LATER, WHEN ACCELERATING TO 310 KTS (DELAYED ACCELERATION DUE TO ROUGH AIR), NOTED ABNORMAL AILERON DEFLECTION TO R. LOOKED OUT WINDOW AND SAW #2 (ON L WING) SLAT STILL PARTIALLY EXTENDED. SLOWED ACFT AND DSND'D TO FL200. COMPLETED CHKLIST AND DECIDED TO DIVERT TO ATL. EMER WAS DECLARED. CONSIDERED SELF TASK SATURATED DUE TO WX AVOIDANCE, POOR DECISION IN DELAYING 'AFTER TKOF CHKLIST.'

SYNOPSIS : MLG HAS OVER SPD WITH FLAP EXTENDED 1 DEG. NOTE ABNORMAL AILERON DEFLECTION TO R.

REFERENCE FACILITY ID : RSW
 FACILITY STATE : FL
 DISTANCE & BEARING FROM REF. : 10,,NW
 MSL ALTITUDE : 4000,20000
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : NON;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : TKOF,CLB;
 SPECIAL ROUTE : OTH;
 AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 102173
 DATE OF OCCURRENCE : 8901
 REPORTED BY : FLC; ; ;
 PERSONS FUNCTIONS : FLC,PIC.CAPT; FLC,FO; TWR,LC; MISC,FBO;
 FLIGHT CONDITIONS : VMC
 REFERENCE FACILITY ID : SYR
 FACILITY STATE : NY
 FACILITY TYPE : TWR; ARPT;
 FACILITY IDENTIFIER : SYR; SYR;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : LOSS OF ACFT **CONTROL**; ACFT EQUIPMENT
 PROBLEM/CRITICAL;
 ANOMALY DETECTOR : COCKPIT/FLC;
 ANOMALY RESOLUTION : FLC REGAINED ACFT **CONTROL**; NOT
 RESOLVED/ANOMALY ACCEPTED;
 ANOMALY CONSEQUENCES : NONE;
 SITUATION REPORT SUBJECTS : ACFT EQUIPMENT; PROC OR POLICY/COMPANY;
 NARRATIVE : WHEN INITIALLY RECEIVING MY ACFT IN EWR

THE INBND CREW HAD WRITTEN UP THE LNDG GEAR HANDLE IN THE MAINT
 MANUAL AS BEING STIFF. COMPANY MECHS CLRED THE ACFT FOR FLT AFTER
 AN INSPECTION. ENRTE FROM EWR TO SYR I EXPERIENCED THE STIFF GEAR
 HANDLE, STIFF **FLAP** HANDLE AND STIFF AND DEGRADED PERFORMANCE IN
 THE FLT **CONTROLS**. LNDG AT SYR THE BRAKE PEDALS WOULD DEFLECT ONLY
 PARTIALLY. I ENTERED ALL OF THE ABOVE PROBS IN THE MAINT MANUAL AT
 SYR. CONTRACT MAINT FOUND A LARGE BUILD UP OF ICE IN THE WHEEL
 WELLS COVERING THE **CONTROL** CABLES FOR BRAKES, **AILERON**, GEAR AND
FLAPS. IT WAS ASSUMED THE ICE BUILD UP HAD OCCURRED GRADUALLY
 BECAUSE OF SNOWY WX OVER THE LAST 2 DAYS IN THE NE/CENTRAL PARTS
 OF THE USA WHERE THE ACFT OPERATES. THE ICE WAS REMOVED, AND AFTER
 AN INSPECTION THE RETURN FLT TO EWR WAS COMMENCED. ALL **CONTROLS**
 OPERATED NORMALLY AFTER DE-ICING. ON TKOF FROM SYR THE GEAR HANDLE
 WOULD NOT RAISE OUT OF THE DOWN DETENT POS. FLT CTLS STARTED TO
 STIFFEN. I MADE AN IMMEDIATE DECISION TO LEAVE THE ACFT CONFIGURED
 AS IT WAS AND MAKE A CLOSE IN PATTERN TO THE LEFT FOR AN IMMEDIATE
 RETURN TO LNDG AT SYR. CRASH TRUCKS WERE REQUESTED AS A PRECAUTION
 ONLY. AN EMER WAS NOT DECLARED. ON T/D THE BRAKE PEDALS WOULD NOT
 DEFLECT. THE ACFT WAS STOPPED USING REVERSE **THRUST**. TOWARD THE END
 OF THE LNDG ROLLOUT I REGAINED ENOUGH BRAKE EFFECTIVENESS TO
 SAFELY TAXI. AGAIN, AN EXTREME AMOUNT OF ICE BUILD UP WAS FOUND ON
 THE **CONTROL** CABLES IN THE WHEEL WELLS. COMPANY MAINT WAS FLOWN IN
 TO EXAMINE THE ACFT. IT WAS FOUND THE POTABLE WATER LINES HAD
 BURST OVER THE WHEEL WELL AREA AND WATER WAS POURING DOWN AND
 FREEZING INSTANTLY, RESULTING IN IMMOVABLE CTL CABLES. BETTER
 OVERNIGHT PROCS FOR OVERNIGHT ACFT IN SEVERE COLD WX CITIES NEED
 TO BE DEVELOPED. CONTRACT MAINT UNFAMILIAR WITH ACFT TYPE SHOULD
 NOT BE ALLOWED TO WORK ON ACFT.

SYNOPSIS : ACFT FLT **CONTROLS**, LNDG GEAR HANDLE AND
FLAP HANDLE OPERATION RESTRICTED DUE TO LARGE BUILDUP OF ICE IN
 THE WHEEL WELL AREA.

REFERENCE FACILITY ID : SYR
 FACILITY STATE : NY
 MSL ALTITUDE : 1500,1500
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT, LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : NON;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;

FLIGHT PHASE
SPECIAL ROUTE
AIRCRAFT HANDLE

: TKOF, ICLB, PATTERN;
: NON;
: A1;

B737-Type Aircraft Auto Flight System Reports

ACCESSION NUMBER : 225033
 DATE OF OCCURRENCE : 9210
 REPORTED BY : FLC; ; ;
 PERSONS FUNCTIONS : FLC,PIC.CAPT; FLC,FO; TRACON,AC;
 FLIGHT CONDITIONS : VMC
 REFERENCE FACILITY ID : DFW
 FACILITY STATE : TX
 FACILITY TYPE : TRACON; ARPT;
 FACILITY IDENTIFIER : DFW; DFW;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : OTHER; ACFT EQUIPMENT PROBLEM/LESS
 SEVERE; ALT DEV/EXCURSION FROM ASSIGNED; NON ADHERENCE LEGAL
 RQMT/CLNC;
 ANOMALY DETECTOR : COCKPIT/FLC; COCKPIT/EQUIPMENT;
 ANOMALY RESOLUTION : FLC OVERCAME EQUIP PROBLEM; FLC
 RETURNED ACFT TO ORIGINAL CLNC OR INTENDED COURSE;
 ANOMALY CONSEQUENCES : NONE;
 NARRATIVE : DURING APCH IN VNAV/NAV LEVEL AT 11000
 WITH 11000 FT IN ALT SELECT WINDOW, ACFT BEGAN A RAPID UNSCHEDULED
 DSCNT WHEN HDG SELECT WAS ACTIVATED. CREW BEGAN AN IMMEDIATE CLB
 BACK TO 11000 RESULTING IN A 300 FT DEV. A TCASII RA 'CLB' ALERT
 WAS RECEIVED MOMENTARILY. NO FURTHER CONFLICT WAS NOTED.
 SYNOPSIS : ACR MLG ACFT DEVIATED FROM ASSIGNED ALT
 WHEN A MALFUNCTION OF THE ACFT **AUTOPLT** CAUSED THE ACFT TO DSND
 WHEN THE HDG SELECT WAS ACTIVATED.
 REFERENCE FACILITY ID : DFW
 FACILITY STATE : TX
 DISTANCE & BEARING FROM REF. : 11,,NW
 MSL ALTITUDE : 10700,11000
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : DISPLAY,NAVCTL;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : CRS,DSCNT;
 SPECIAL ROUTE : ARR,STAR;
 AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 153599
 DATE OF OCCURRENCE : 9007
 REPORTED BY : FLC; ;
 PERSONS FUNCTIONS : FLC,PIC.CAPT; FLC,FO;
 FLIGHT CONDITIONS : MXD
 REFERENCE FACILITY ID : LVS
 FACILITY STATE : NM
 FACILITY TYPE : ARTCC;
 FACILITY IDENTIFIER : ZAB;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : IN-FLT ENCOUNTER/WX; **SPEED** DEVIATION;
 ACFT EQUIPMENT PROBLEM/LESS SEVERE;
 ANOMALY DETECTOR : COCKPIT/EQUIPMENT;
 ANOMALY RESOLUTION : FLC OVERCAME EQUIP PROBLEM;
 ANOMALY CONSEQUENCES : NONE;
 NARRATIVE : DURING CRUISE, THE **STABILIZER TRIM** ON
 THE MLG SOUNDED 1 TONE AND PLTS NOTED AIRSPD WAS DECREASING FORM
 DESIRED FMS SPD OF 280 KIAS TOWARD 250 KIAS. ACFT WAS BEING
 MANEUVERED AROUND WX SYSTEMS AND OUR ATTN WAS PRIMARILY DEVOTED TO
 RADAR PRESENTATION AND HDG DEVIATIONS. ASIDE FROM BEING IN AND OUT
 OF FLT CIRRUS CLOUDS, RIDE WAS FAIRLY SMOOTH WITH NO VISIBLE
 MOISTURE OR ICING NOTED. FMS OVERRIDE SELECTED AND AIRSPD 280 KIAS,
 EPR'S INDICATED MAX CRUISE 1.86. AIRSPD CONTINUED TO DECREASE AND
 MCT WAS SELECTED AT 240 KIAS. WX AVOIDANCE WAS STILL IN PROGRESS
 BUT FLT CONDITION WAS MOSTLY TOPPING CLOUDS TO IN THE CLR. LARGE
 TSTMS TO LEFT AND LESSER CELLS TO THE RIGHT. AS AIRSPD CONTINUED
 TO DECREASE, CAPT CLICKED OFF **AUTOTHROTTLES**, SELECTED TKOF **THRUST**
 ON THE TRP AND APPLIED NEARLY FULL FORWARD **THRUST** ON THE THROTTLE
 LEVERS. EPR INDICATED AS HIGH AS 2.20 WITH COMMAND INDICES AT 2.08;
 HOWEVER, THE N1 AND N2 **THRUST** SETTINGS INDICATED ONLY 92% AND 96%
 RESPECTIVELY. AIRSPD BEGAN TO INCREASE. LOWEST AIRSPD WAS 227 KIAS
 BEFORE INCREASE. EVEN THOUGH WE WERE IN THE CLR WITH NO WINDSHIELD
 BOLT ICING, THE IGNITION WAS PLACED ON AND ENG ANTI-ICE TURNED ON.
 EPR INDICATORS FLASHED AND FLUCTUATED WILDLY BEFORE INDICATING
 PROPERLY. FMS THEN INDICATED LOS TEMP CONDITIONS FOR THE FIRST
 TIME. IT IS SUSPECTED THAT THE PT2 PROBE HAD ICED UP AND THAT THE
 FMS COMMANDED FULL PWR WITH NO RESULTANT INCREASE IN ENG
 PERFORMANCE. CAPT CAN REMEMBER SEEING N2 READINGS AS LOW AS 78%
 PRIOR TO MANUALLY TAKING CTL OF THE THROTTLES. COMMANDED EPR WAS
 TKOF **THRUST** ON TRP. I BELIEVE THAT THIS CONDITION, IF REPEATED,
 COULD RESULT IN AIRSPD DETERIORATING TO THE POINT OF STALL. THE
 REALLY WEIRD THING IS THAT AT NO TIME WERE THE CLASSIC ICING CLUES
 PRESENT. FORTUNATELY, THE FLT DID NOT ENCOUNTER ANY MODERATE OR
 GREATER GUSTS DURING THE LOW SPD EPISODE. ANOTHER ANOMALY IS THAT
 AT NO TIME DID THE EPR APPEAR TO BE ERRATIC OR STUCK. THE EPR
 FOLLOWED THE TRP TO EACH HIGHER SETTING W/O A SUBSEQUENT CHANGE IN
 OTHER ENG INS OR **THRUST** LEVERS. IT WAS ALSO APPARENT THAT THE
AUTOTHROTTLE CLUTCHES WERE ENGAGED AND THAT THE REQUESTED PWR WAS
 NOT BEING APPLIED.
 SYNOPSIS : ACR MLG **SPEED** DEVIATION AT CRUISE ALT.
 REFERENCE FACILITY ID : LVS
 FACILITY STATE : NM
 DISTANCE & BEARING FROM REF. : 8,,N
 MSL ALTITUDE : 33000,33000
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : NAVCTL,DISPLAY;

OPERATOR ORGANIZATION : ACR;
OPERATION : PAX;
FLIGHT PLAN TYPE : IFR;
FLIGHT PHASE : CRS;
SPECIAL ROUTE : OTH;
AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 155679
 DATE OF OCCURRENCE : 9008
 REPORTED BY : FLC; ; ;
 PERSONS FUNCTIONS : FLC,PIC.CAPT; FLC,FO; TRACON,DC;
 FLIGHT CONDITIONS : VMC
 REFERENCE FACILITY ID : LAX
 FACILITY STATE : CA
 FACILITY TYPE : TRACON; ARPT;
 FACILITY IDENTIFIER : LAX; LAX;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : ACFT EQUIPMENT PROBLEM/LESS SEVERE; NON
 ADHERENCE LEGAL RQMT/CLNC; NON ADHERENCE LEGAL RQMT/PUBLISHED PROC;
 TRACK OR HDG DEVIATION;
 ANOMALY DETECTOR : ATC/CTLR;
 ANOMALY RESOLUTION : CTLR INTERVENED; CTLR ISSUED NEW CLNC;
 ANOMALY CONSEQUENCES : NONE;
 NARRATIVE : FLYING THE GORMAN 8 DEP OFF RWY 24 OUT
 OF LAX, WE ENCOUNTERED SEVERAL BLEED/PACK TRIPS (I.E.,
 PRESSURIZATION PROBS). THE ACFT WAS ON **AUTOPLT** FLYING OFF COMPUTER
 NAV AND STARTED A TURN EARLY TO INTERCEPT LAX 323 DEG R. WE WERE
 TOLD BY CENTER WE WERE OFF COURSE AND TO TURN IMMEDIATELY TO 360
 DEGS AND RESUME THE GORMAN 8 DEP. WE DID SO AND NOTHING ELSE WAS
 SAID. THE CTLR HAD SAID HE HAD US ABOUT 6 MI OFF COURSE.
 SYNOPSIS : ACR MLG WITH MINOR ACFT EQUIPMENT
 PROBLEM EXPERIENCES TRACK DEVIATION ON GORMAN 8 SID FROM LAX.A
 REFERENCE FACILITY ID : LAX
 FACILITY STATE : CA
 DISTANCE & BEARING FROM REF. : 15,315
 MSL ALTITUDE : 9000,10000
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : NAVCTL,DISPLAY;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : CLB;
 SPECIAL ROUTE : DEP,SID;
 AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 120387
 DATE OF OCCURRENCE : 8908
 REPORTED BY : FLC; ;
 PERSONS FUNCTIONS : FLC,PIC.CAPT; FLC,FO;
 FLIGHT CONDITIONS : VMC
 REFERENCE FACILITY ID : ATL
 FACILITY STATE : GA
 FACILITY TYPE : ARPT; TRACON;
 FACILITY IDENTIFIER : ATL; ATL;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : ACFT EQUIPMENT PROBLEM/LESS SEVERE; ALT
 DEV/OVERSHOOT ON CLB OR DES;
 ANOMALY DETECTOR : COCKPIT/FLC;
 ANOMALY RESOLUTION : FLC RETURNED ACFT TO ORIGINAL CLNC OR
 INTENDED COURSE;
 ANOMALY CONSEQUENCES : NONE;
 SITUATION REPORT SUBJECTS : ACFT EQUIPMENT;
 NARRATIVE : AT 13000' MSL CLBING TO 14000', F/O
 CALLED, "1 TO GO, ARMED" (**AUTOPLT**, **AUTO-THROTTLES** WERE ENGAGED IN
 IAS AND EPR LIMIT). DFGS REVERTED TO VERT SPD AT 3300 FPM CLB WITH
 FULL CLB EPR GOING THROUGH 13500' AND "ARM" FOR ALT CAPTURE
 DROPPED OUT. PLT DISENGAGED **AUTOPLT**, **AUTO-THROTTLE**, LEVELED OFF
 AND REDUCED PWR TO IDLE. CLB STOPPED AT 14250'. TYPE MLG DFGS
 NEEDS SOFTWARE IMPROVEMENTS!!!
 SYNOPSIS : ACR MLG ALT DEVIATION OVERSHOT USING
AUTOPLT AUTO-THROTTLES.
 REFERENCE FACILITY ID : ATL
 FACILITY STATE : GA
 DISTANCE & BEARING FROM REF. : 20,,NE
 MSL ALTITUDE : 14000,14250
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : NAVCTL;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : CLB;
 SPECIAL ROUTE : NON;
 AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 134267
 DATE OF OCCURRENCE : 9001
 REPORTED BY : FLC; ; ;
 PERSONS FUNCTIONS : FLC,PIC.CAPT; FLC,FO; ARTCC,RDR;
 FLIGHT CONDITIONS : VMC
 REFERENCE FACILITY ID : BSR
 FACILITY STATE : CA
 FACILITY TYPE : ARTCC;
 FACILITY IDENTIFIER : ZOA;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : ACFT EQUIPMENT PROBLEM/LESS SEVERE; NON
 ADHERENCE LEGAL RQMT/CLNC; ALT DEV/EXCURSION FROM ASSIGNED;
 ANOMALY DETECTOR : COCKPIT/FLC;
 ANOMALY RESOLUTION : FLC OVERCAME EQUIP PROBLEM; FLC
 RETURNED ACFT TO ORIGINAL CLNC OR INTENDED COURSE;
 ANOMALY CONSEQUENCES : NONE;
 SITUATION REPORT SUBJECTS : ACFT EQUIPMENT;
 NARRATIVE : ENRTE FROM LAX TO SFO ON J501 AT FL330.

WE WERE DIRECTED TO DSND TO FL280 AND MAINTAIN 250 KTS FOR
 SEQUENCING. THE FLT GUIDANCE SYS WA SET AND ARMED, AND BEGAN THE
 DSCNT. THE SYS LEVELED AT FL280 AND SLOWED TO 250 KTS. SHORTLY
 THEREAFTER, THE **AUTO**THROTTLES WENT TO CLB PWR, THE ACFT
 ACCELERATED TO 280 KTS AND STARTED A QUICK CLB. THE FLT GUIDANCE
 SYS WAS STILL SET FOR FL280 AT 250 KTS. I DISCONNECTED THE **AUTO**PLT
 WITH THE ALT PEAKING AT FL285. THE ACFT WAS RETURNED TO FL280 AT
 250 KTS. THERE WAS NO TFC CONFLICT. THIS IS THE FOURTH TIME IN 5
 MONTHS THAT I HAVE HAD UNCOMMANDED ACTIONS WITH THIS PARTICULAR
 FLT GUIDANCE SYS THAT CAUSED A DEVIATION. EACH INCIDENT WAS
 COMPLETELY DIFFERENT FROM THE OTHERS, VARYING FROM UNCOMMANDED
 CLBS TO FAILURES TO CAPTURE AND HOLD ALTS.

SYNOPSIS : MLG ACFT **AUTO** EQUIPMENT MADE

UNCOMMANDED CLIMB.

REFERENCE FACILITY ID : BSR
 FACILITY STATE : CA
 DISTANCE & BEARING FROM REF. : 68,124
 MSL ALTITUDE : 28000,28500
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : NAVCTL;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : DSCNT,MNTN;
 SPECIAL ROUTE : ARR;
 AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 136863
 DATE OF OCCURRENCE : 9002
 REPORTED BY : FLC; ; ;
 PERSONS FUNCTIONS : FLC,PIC.CAPT; FLC,FO; TRACON,AC;
 FLIGHT CONDITIONS : VMC
 REFERENCE FACILITY ID : TPA
 FACILITY STATE : FL
 FACILITY TYPE : TRACON;
 FACILITY IDENTIFIER : TPA;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : ACFT EQUIPMENT PROBLEM/LESS SEVERE; ALT
 DEV/OVERSHOOT ON CLB OR DES; NON ADHERENCE LEGAL RQMT/CLNC;
 ANOMALY DETECTOR : COCKPIT/FLC;
 ANOMALY RESOLUTION : FLC RETURNED ACFT TO ORIGINAL CLNC OR
 INTENDED COURSE;
 ANOMALY CONSEQUENCES : NONE;
 NARRATIVE : UPON LETDOWN INTO TPA FOR LNDG, WE SET
 12000' IN OUR ACR MLG MODE **CONTROL** PANEL ALT WINDOW. IN ACR ACFT
 THE **AUTOPLT** DESCENDS AT A HIGH RATE OF SPD UNTIL RIGHT AT LEVEL
 OFF ALT. AFTER WE SET 12000' AS OUR LEVEL OFF ALT, THE MCP WINDOW
 JUMPED TO 11000', W/O FURTHER INPUT FROM US. AS THE ACFT WAS
 PASSING 12000' WE NOTICED THE ERROR AND I DISCONNECTED THE **AUTOPLT**
 AND ATTEMPTED TO LEVEL OFF AT 12000'. BECAUSE OF THE HIGH RATE OF
 DSCNT OF THE **AUTOPLT** WE LOST ABOUT 250' ON LEVEL OFF. WE
 IMMEDIATELY CLBED BACK TO 12000'. ATC ASKED OUR ALT AND WE SAID
 LEVELING AT 12000'. THIS PROB HAS COME UP BEFORE AND OUR COMPANY
 HAS PUT OUT A MEMO TO THIS EFFECT.
 SYNOPSIS : ALT DEVIATION. OVERSHOOT IN DESCENT.
 UNABLE CALLBACK.
 REFERENCE FACILITY ID : TPA
 FACILITY STATE : FL
 MSL ALTITUDE : 11750,12000
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : NON;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : DSCNT;
 SPECIAL ROUTE : ;
 AIRCRAFT HANDLE : A1;

**B737-Type Aircraft
Rudder/Yaw Damper Reports**

ACCESSION NUMBER : 213222
 DATE OF OCCURRENCE : 9204
 REPORTED BY : FLC; ; ;
 PERSONS FUNCTIONS : FLC,FO; FLC,PIC.CAPT; ARTCC,RDR;
 FLIGHT CONDITIONS : VMC
 REFERENCE FACILITY ID : SFO
 FACILITY STATE : CA
 FACILITY TYPE : ARTCC; ARPT;
 FACILITY IDENTIFIER : ZOA; SFO;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : LOSS OF ACFT **CONTROL**; ACFT EQUIPMENT
 PROBLEM/CRITICAL;
 ANOMALY DETECTOR : COCKPIT/FLC; COCKPIT/EQUIPMENT;
 ANOMALY RESOLUTION : FLC OVERCAME EQUIP PROBLEM;
 ANOMALY CONSEQUENCES : OTHER;
 SITUATION REPORT SUBJECTS : AN ACFT TYPE; ACFT EQUIPMENT;
 NARRATIVE : THE CAPT WAS HAND FLYING PRIOR TO LEVEL

OFF, HE **TRIMMED** THE **RUDDER** THEN ENGAGED THE **AUTOPLT**. THE ACFT
 ENTERED INTO A SEVERE **YAW** AND THE **AUTOPLT** KICKED OFF. AFTER CHKING
 FOR AN ENG FAILURE, I LOOKED AT THE **RUDDER TRIM**. IT WAS MOVING TO
 THE FAR L. I QUICKLY REVERSED THE **TRIM** TO CTR. I CANNOT SAY
 WHETHER THE **TRIM** KNOB CTRING MECHANISM FAILED (I TESTED THE CTRING
 MECHANISM MANY TIMES AFTER LNDG AND IT CTRED EVERY TIME), OR THE
TRIM CONTINUED TO MOVE WITH A CTRED **TRIM** KNOB. CALLBACK
 CONVERSATION WITH RPTR REVEALED THE FOLLOWING INFO. CLBING OUT OF
 SFO, THE CAPT WHO WAS NEW ON THE AIRPLANE, USED THE **RUDDER TRIM**
 JUST PRIOR TO ENGAGING THE **AUTOPLT**. WHEN ACFT **YAWED**, RPTR NOTICED
 10 UNITS OF L **RUDDER TRIM**. HE GRABBED THE **TRIM** KNOB AND TURNED IT
 COMPLETELY TO THE R AND **TRIM** MOVED TO '0'. HE IS THEREFORE UNSURE
 IF, DURING THE TIME **TRIM** WAS RUNNING TO THE L, THE **TRIM** KNOB WAS
 IN THE L OR CTR ('0') POS. ACR PROPOSES A SQUIRT OF LUBRICANT ON
 THE KNOB AS A FIX.

SYNOPSIS : DURING CLB, **RUDDER TRIM** RUNS AWAY
 CAUSING SEVERE **YAW**.

REFERENCE FACILITY ID : SFO
 FACILITY STATE : CA
 MSL ALTITUDE : 23000,23000
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : DISPLAY,NAVCTL;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : CLB;
 SPECIAL ROUTE : NON;
 AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 219429
 DATE OF OCCURRENCE : 9204
 REPORTED BY : FLC; ;
 PERSONS FUNCTIONS : FLC,FO; FLC,PIC.CAPT;
 REFERENCE FACILITY ID : ZZZ
 FACILITY STATE : US
 FACILITY TYPE : ARPT;
 FACILITY IDENTIFIER : ZZZ;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : ACFT EQUIPMENT PROBLEM/CRITICAL;
 ANOMALY DETECTOR : COCKPIT/FLC; COCKPIT/EQUIPMENT;
 ANOMALY RESOLUTION : NOT RESOLVED/ANOMALY ACCEPTED;
 ANOMALY CONSEQUENCES : NONE;
 SITUATION REPORT SUBJECTS : ACFT EQUIPMENT; PROC OR POLICY/COMPANY;
 PROC OR POLICY/FAA;

NARRATIVE : DURING THE RIDDER **TRIM** PREFLT CHK, WE
 NOTICED THE **TRIM** POS ARROW HUNG UP. IT REMAINED AT '0' WHEN **RUDDER**
TRIM WAS APPLIED. IT FINALLY 'JUMPED' TO 5 UNITS AND CONTINUED TO
 JUMP. WE DISCOVERED THIS COULD BE FLOWN IN ACCORDANCE WITH MEL. IN
 LIGHT OF **RUDDER** PROBLEM, I BELIEVE THIS MEL SHOULD BE REVIEWED.
 CALLBACK CONVERSATION WITH RPTR REVEALED THE FOLLOWING INFO. THESE
 ACFT HAVE A HISTORY OF RUNAWAY **RUDDER TRIM** MOTORS. THE PROBLEM
 RPTD HERE MAKES THE MATTER WORSE, THE **TRIM** COULD BE RUNNING AWAY
 AND THE COCKPIT INDICATOR, AN ELECTRICALLY DRIVEN INST, WOULD NOT
 INDICATE ANY MOTION OF THE **RUDDER TRIM** IF IT JAMMED.

SYNOPSIS : **RUDDER TRIM** POS INDICATOR JAMMED AND OR
 STICKING AS **RUDDER TRIM** POS WAS CHANGED.

REFERENCE FACILITY ID : ZZZ
 FACILITY STATE : US
 AGL ALTITUDE : 0,0
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT, LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : DISPLAY,NAVCTL;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : PREFLT;
 SPECIAL ROUTE : NON;
 AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 222938
DATE OF OCCURRENCE : 9210
REPORTED BY : FLC; ;
PERSONS FUNCTIONS : FLC,PIC.CAPT; FLC,FO;
FLIGHT CONDITIONS : VMC
REFERENCE FACILITY ID : MIA
FACILITY STATE : FL
FACILITY TYPE : ARPT;
FACILITY IDENTIFIER : MIA;
AIRCRAFT TYPE : MLG;
ANOMALY DESCRIPTIONS : OTHER; ACFT EQUIPMENT PROBLEM/LESS
SEVERE;
ANOMALY DETECTOR : COCKPIT/FLC; COCKPIT/EQUIPMENT;
ANOMALY RESOLUTION : FLC OVERCAME EQUIP PROBLEM;
ANOMALY CONSEQUENCES : NONE;
NARRATIVE : PREFLT INSPECTION REVEALED **RUDDER TRIM**
FULL DEFLECTION R **RUDDER** PEDALS DISPLACED 8-10 INCHES. NO OTHER
ANOMALIES NOTED, IE, **TRIM** KNOB WAS CTRED, NO CIRCUIT BREAKERS
POPPED. NO OBVIOUS CAUSE FOR SITUATION. POSSIBLE CAUSES: LABOR
TROUBLE AT AIRLINE, MISPLACED JUMPSEAT PAX. ACFT ON GND FOR 1 HR
BEFORE WE PICKED IT UP.
SYNOPSIS : CAPT OF ACR MLG ACFT FOUND **RUDDER TRIM**
SETTING AND **RUDDER** PEDALS IN THE FULL DEFLECTION POS DURING
PREFLT.
REFERENCE FACILITY ID : MIA
FACILITY STATE : FL
AGL ALTITUDE : 0,0
AIRCRAFT INVOLVEMENT : ANOMALY;
AIRCRAFT TYPE : MLG;
CREW SIZE : 2;
WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
NUMBER OF ENGINES : 2;
ADVANCED COCKPIT : DISPLAY,NAVCTL;
OPERATOR ORGANIZATION : ACR;
OPERATION : PAX;
FLIGHT PLAN TYPE : IFR;
FLIGHT PHASE : PREFLT;
SPECIAL ROUTE : ;
AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 166456
 DATE OF OCCURRENCE : 9012
 REPORTED BY : PAX; ;
 PERSONS FUNCTIONS : MISC,PAX; FLC,PIC.CAPT;
 FLIGHT CONDITIONS : VMC
 REFERENCE FACILITY ID : SEA
 FACILITY STATE : WA
 FACILITY TYPE : ARTCC;
 FACILITY IDENTIFIER : ZSE;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : ACFT EQUIPMENT PROBLEM/LESS SEVERE;
 ANOMALY DETECTOR : OTHER;
 ANOMALY RESOLUTION : FLC OVERCAME EQUIP PROBLEM;
 ANOMALY CONSEQUENCES : NONE;
 SITUATION REPORT SUBJECTS : ACFT EQUIPMENT;
 NARRATIVE : WHEN THE **RUDDER TRIM** SWITCH ON THE MLG
 WAS TURNED TO THE "ADD R **RUDDER TRIM** POS" THE SWITCH STUCK IN THIS
 POS UNTIL APPROX 5 DEG OF UNWANTED **TRIM** WAS ADDED. THIS IS
 PARTICULARLY DISTURBING SINCE THIS OCCURRED ON ACFT WHOSE **RUDDER**
TRIM SYS WAS MODIFIED TO THE NEW STANDARD TO PREVENT SUCH
 OCCURRENCES. I BELIEVE THAT THIS MODIFIED SYS IS STILL DEFICIENT
 FOR SEVERAL REASONS. FIRST THE NEW ROUND KNOB HAS A LARGE FLANGE
 ON THE BOTTOM OF THIS KNOB. THIS PROVIDES A VERY CONVENIENT SPOT
 FOR STICKY LIQUIDS TO INVAD E AND CAUSE ADHESION BTWN THE KNOB
 FLANGE AND THE FACE PLATE OF THE PANEL WHICH CAN CAUSE THIS SWITCH
 TO STICK. INSTEAD THIS KNOB SHOULD BE SHAPED LIKE AN INVERTED CONE
 AND THUS ELIMINATES THIS CAUSE FOR THE SWITCH STICKING. IN
 ADDITION THERE SHOULD BE A LIGHT OR AURAL WARNING FOR **RUDDER** OR
AILERON TRIM IN MOTION. HAD THE CREW NOT CAUGHT THIS AND THE **TRIM**
 CONTINUED TO BE ADDED IT IS VERY LIKELY THE **AUTOPLT** WOULD HAVE
 KICKED OFF AND THE ACFT WOULD HAVE LIKELY PRODUCED A SERIES OF
 SEVERE DUTCH ROLLS PRIOR TO BEING BROUGHT BACK UNDER CTL. THE SEC
 PROB WITH THIS NEW KNOB IS THAT THE KNOB HAS NO INDEX MARKS ON IT.
 THUS YOU ARE UNABLE TO TELL FROM A GLANCE IF THE SWITCH IS STUCK.
 SYNOPSIS : JUMP SEAT RIDER OBSERVED A **RUDDER TRIM**
 SWITCH STICKING WHEN **RUDDER TRIM** WAS ACTIVATED. SAYS IT WAS A NEW
 'IMPROVED' KNOB BUT STILL HAS A PROBLEM.
 REFERENCE FACILITY ID : SEA
 FACILITY STATE : WA
 DISTANCE & BEARING FROM REF. : ,,SO
 MSL ALTITUDE : 33000,33000
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : NAVCTL;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : CRS;
 SPECIAL ROUTE : NON;
 AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 195879
 DATE OF OCCURRENCE : 9112
 REPORTED BY : FLC; FLC; ;
 PERSONS FUNCTIONS : FLC,PIC.CAPT; FLC,FO; TWR,LC;
 FLIGHT CONDITIONS : VMC
 REFERENCE FACILITY ID : OAK
 FACILITY STATE : CA
 FACILITY TYPE : ARPT; TWR;
 FACILITY IDENTIFIER : OAK; OAK;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : ACFT EQUIPMENT PROBLEM/CRITICAL; LOSS
 OF ACFT **CONTROL**; RWY OR TXWY EXCURSION; OTHER;
 ANOMALY DETECTOR : COCKPIT/FLC;
 ANOMALY RESOLUTION : FLC REGAINED ACFT **CONTROL**; OTHER;
 ANOMALY CONSEQUENCES : FAA INVESTIGATORY FOLLOW-UP;
 SITUATION REPORT SUBJECTS : AN ACFT TYPE; ACFT EQUIPMENT;
 NARRATIVE : ACFT TOUCHED DOWN ON AIRSPD (123 KTS)
 AT 1000 FT. AS NOSEWHEEL TOUCHED DOWN, AT SAME TIME REVERSERS
 DEPLOYED, ACFT VEERED 45 DEGS L AND DEPARTED RWY AT HIGH SPD. ACFT
 WAS STOPPED, ENGS SHUTDOWN AND PAX TOLD TO REMAIN SEATED. NO EMER
 EVAC WAS PERFORMED. NO INJURIES AND MINOR DAMAGE TO ACFT. I
 BELIEVE ACFT LEFT RWY EITHER BECAUSE #1 ENG WAS FULL REVERSE AND
 #2 IN FORWARD **THRUST** OR MALFUNCTION OF NOSE GEAR STEERING. WE HAD
 FULL R **RUDDER** WITH NO RESPONSE AS ACFT WAS HDG L.
 SYNOPSIS : UPON LNDG MLG ACFT, UNCTABLE VEERING
 TO L CAUSED ACFT TO LEAVE RWY, STOPPED OFF RWY NO DAMAGE, NO
 INJURIES, NO PAX EMER EVAC.
 REFERENCE FACILITY ID : OAK
 FACILITY STATE : CA
 AGL ALTITUDE : 0,0
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT, LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : NON;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : LNDG;
 SPECIAL ROUTE : ;
 AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 209001
 DATE OF OCCURRENCE : 9205
 REPORTED BY : FLC; ; ;
 PERSONS FUNCTIONS : FLC,FO; FLC,PIC.CAPT; TWR,GC; MISC,
 GNDCREW;
 FLIGHT CONDITIONS : VMC
 REFERENCE FACILITY ID : ATL
 FACILITY STATE : GA
 FACILITY TYPE : ARPT; TWR;
 FACILITY IDENTIFIER : ATL; ATL;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : ACFT EQUIPMENT PROBLEM/CRITICAL; OTHER;
 ANOMALY DETECTOR : COCKPIT/FLC;
 ANOMALY RESOLUTION : OTHER;
 ANOMALY CONSEQUENCES : NONE;
 SITUATION REPORT SUBJECTS : AN ACFT TYPE; ACFT EQUIPMENT;
 NARRATIVE : DURING FLT CTL CHK OF **RUDDER** PEDALS (ON

GND IN ATL), THE CAPT FOUND THE R **RUDDER** PEDAL WOULD NOT MOVE MORE
 THEN 2- 3 INCHES. L PEDAL TRAVEL WAS NORMAL, FO'S PEDALS HAD THE
 SAME PROBLEM. CONSULTING THE POM WAS NO HELP AS THERE IS NO
 ABNORMAL TO COVER THE SITUATION. DECISION WAS MADE TO RETURN TO
 THE GATE. UPON FURTHER INVESTIGATION AFTER SHUTDOWN AT THE GATE,
 THE **RUDDER** TRAVEL AND PEDAL MOVEMENT RETURNED TO NORMAL. WHEN THE
 ADJUSTMENT KNOB WAS PULLED ON THE CAPT'S SIDE, THERE WAS A
 PRONOUNCED POPPING NOISE FOLLOWED BY SOME LATERAL MOVEMENT TO THE
RUDDER ADJUSTMENT KNOB WITHIN THE ASSEMBLY. WHEN A NEW ADJUSTED
 POS WAS MADE TO THE IN-AND-OUT MOVEMENT OF THE PEDALS, THE L PEDAL
 BOUND UP AND MOVED ONLY 1-2 INCHES FORWARD. MAINT DISCOVERED THE
 SLEEVE ASSEMBLY IMMEDIATELY BEHIND THE KNOB AND PEDAL ADJUSTMENT
 BRACKET WHICH ATTACHES TO THE ADJUSTMENT CABLE, HAD BOTH NUTS
 LOOSE. I BELIEVE THAT THIS CONDITION, BECAUSE OF ITS INTERMITTENT
 NATURE COULD HAVE EASILY NOT BEEN DETECTED. NEEDLESS TO SAY, THE
 POTENTIAL FOR DISASTER WITH AN ENG FAILURE AND THE NEED FOR **RUDDER**
 IN COMBATTING EXCESSIVE **YAW** COULD HAVE OCCURRED. SUGGEST THAT THE
 DESIGN OF THIS SYS BE REVIEWED WITH AN EYE TOWARD SOME TYPE OF PIN
 OR RETENTION WASHER ADDED TO PREVENT THE BACKING OFF OF THE NUTS
 ON THIS ASSEMBLY. I ALSO SUGGEST THAT THE REST OF THE FLEET BE
 GIVEN A ONE TIME INSPECTION FOR DETECTION OF ANY OTHER LOOSE
 ASSEMBLIES. CALLBACK CONVERSATION WITH RPTR REVEALED THE FOLLOWING
 INFO. RPTR IDENTED ACFT TYPE AND STATED THAT HE HAS NOTIFIED THEIR
 COMPANY ABOUT THE POTENTIAL PROBLEM. HE ADDED THAT THE CAPT HAD
 SUGGESTED THAT HE SUBMIT A WRITEUP TO ASRS. HAS ALSO MENTIONED
 THAT HE NOW MAKES IT A PRACTICE TO CHK THE **RUDDER** ASSEMBLY BEHIND
 THE PEDAL FOR LOOSE NUTS.

SYNOPSIS : ADVTECH MLG FLC ENCOUNTER **RUDDER** PEDAL
 ASSEMBLY PROBLEM ON TAXI-OUT AT ATL.

REFERENCE FACILITY ID : ATL
 FACILITY STATE : GA
 AGL ALTITUDE : 0,0
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : DISPLAY,NAVCTL;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : PREFLT,TAXI;
 SPECIAL ROUTE : ;

AIRCRAFT HANDLE

: A1;

ACCESSION NUMBER : 161515
 DATE OF OCCURRENCE : 9011
 REPORTED BY : FLC; ;
 PERSONS FUNCTIONS : FLC,PIC.CAPT; FLC,FO;
 FLIGHT CONDITIONS : VMC
 REFERENCE FACILITY ID : SJC
 FACILITY STATE : CA
 FACILITY TYPE : ARTCC;
 FACILITY IDENTIFIER : ZOA;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : ACFT EQUIPMENT PROBLEM/LESS SEVERE;
 ANOMALY DETECTOR : COCKPIT/FLC;
 ANOMALY RESOLUTION : FLC OVERCAME EQUIP PROBLEM;
 ANOMALY CONSEQUENCES : OTHER;
 SITUATION REPORT SUBJECTS : ACFT EQUIPMENT;
 NARRATIVE : DURING EARLY CLB I NOTED THAT THE

RUDDER TRIM KNOB, AT DIFFERENT TIMES, DID NOT RETURN TO THE NEUTRAL POS. THE KNOB WOULD REMAIN HARD OVER, LEFT OR RIGHT, DEPENDING ON WHICH WAY IT WAS TURNED, UNTIL YOU RETURNED IT TO THE NEUTRAL POS. THIS OCCURRED DURING CRUISE ALSO. AFTER LNDG AT DEN WE PLACED THE KNOB HARD RIGHT AND THE **RUDDER** INDICE MOVED RIGHT UNTIL 10-12 UNITS BEFORE IT RELEASED AND RETURNED TO THE NEUTRAL POS. WE TRIED IT SEVERAL MORE TIMES BUT THE KNOB PROB WAS NOT CONSISTENT AND DID NOT REPEAT ITS MALFUNCTION EACH TIME IT WAS TURNED. I SUSPECT THE BASE OF THE KNOB IS MOUNTED TOO CLOSE TO THE SURFACE UNDER, CAUSING IT TO BIND ON DIRT, DEBRIS, LINT, ETC, THAT ACCUMULATED BTWN THE 2 SURFACES. COCKPITS ARE NOT THE CLEANEST PART OF THE ACFT. OPERATIONALLY I WOULD RECOMMEND THAT CREWS NOT LET GO OF THAT KNOB UNTIL THEY FEEL IT RETURN TO THE NEUTRAL POS AND VISUALLY CHK TO MAKE SURE IT HAS RETURNED TO THE NEUTRAL POS. FROM A MAINT STANDPOINT, I WOULD SUGGEST PERIODIC CHKS TO ASCERTAIN FREEDOM OF MOVEMENT OF THE KNOB AFTER BEING TURNED AND THEN RELEASED. HEIGHT ADJUSTMENT IS CRITICAL AS IS THE CLEANLINESS OF THE SURFACE BELOW THE KNOB. I THINK THESE 2 STEPS, PROPER CLEANING AND PROPER HEIGHT ADJUSTMENT, WOULD SOLVE THE PROB. AGAIN, AS WITH ACR ACCIDENT AT LGA, THIS SMALL KNOB MOVED AND MONITORED PRIOR TO TKOF COULD CAUSE A HAND FULL OF PROBS RUNNING DOWN A RWY.

SYNOPSIS : ACR MLG **RUDDER TRIM** KNOB BINDING ON PEDESTAL.

REFERENCE FACILITY ID : SJC
 FACILITY STATE : CA
 DISTANCE & BEARING FROM REF. : , , E
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : NON;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : CLB;
 SPECIAL ROUTE : NON;
 AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 239518
 DATE OF OCCURRENCE : 9304
 REPORTED BY : FLC; FLC; ;
 PERSONS FUNCTIONS : FLC,PIC.CAPT; FLC,FO; ARTCC,RDR;
 FLIGHT CONDITIONS : VMC
 REFERENCE FACILITY ID : MEM
 FACILITY STATE : TN
 FACILITY TYPE : ARTCC;
 FACILITY IDENTIFIER : ZME;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : LOSS OF ACFT **CONTROL**; ACFT EQUIPMENT
 PROBLEM/CRITICAL; ALT DEV/EXCURSION FROM ASSIGNED; NON ADHERENCE
 LEGAL RQMT/CLNC;
 ANOMALY DETECTOR : COCKPIT/FLC;
 ANOMALY RESOLUTION : ACFT EXITED ADVERSE ENVIRONMENT; OTHER;
 FLC OVERCAME EQUIP PROBLEM;
 ANOMALY CONSEQUENCES : NONE;
 NARRATIVE : WHILE AT CRUISE AT FL310, THE **AUTOPLT**
 AND **AUTO** THROTTLES DISCONNECTED, THE DIGITAL FLT GUIDANCE FAILED
 WITH ANNUNCIATORS **YAW** DAMP OFF, MACH **TRIM** INOP AND ALT ALERT OFF.
 THE ACFT BEGAN DUTCH-ROLLING. WE STABILIZED ACFT AND BEGAN TO RUN
 ABNORMAL CHKLST 'ACFT OSCILLATING AND **YAW** DISPLACEMENT.' WE FOUND
 CIRCUIT BREAKER FOR DFGC SWITCH 'A' POPPED. CHKLST CALLED TO
 SELECT SECOND DFGC. AFTER IT WAS SELECTED TO NO AVAIL WE
 REINSTATED CIRCUIT BREAKER AND ACFT BEGAN A MODERATE DUTCH ROLL.
 WE PULLED CIRCUIT BREAKER AND ADVISED ZME WE WERE LEAVING FL310
 WITH A FLT CTL PROB AND WE WERE GOING TO DIVERT INTO MEM. AS WE
 CONTINUED THE CHKLST DURING DSCNT THE ACFT STABILIZED WHEN **RUDDER**
 CTL WAS MOVED TO MANUAL. AS WE APCHED MEM, ASKED TO HAVE EQUIP
 STANDING BY. LANDED WITHOUT ANY PROBS.
 SYNOPSIS : ACFT EQUIP PROB MALFUNCTION MANDATES
 IMMEDIATE ALTDEV ALT EXCURSION.
 REFERENCE FACILITY ID : MEM
 FACILITY STATE : TN
 DISTANCE & BEARING FROM REF. : 78,,NW
 MSL ALTITUDE : 31000,31000
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT, LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : DISPLAY,NAVCTL;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : CRS,EMER,DIVERT;
 SPECIAL ROUTE : OTH;
 AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 241788
 DATE OF OCCURRENCE : 9305
 REPORTED BY : FLC; FLC; ;
 PERSONS FUNCTIONS : FLC, PIC. CAPT; FLC, FO; ARTCC, RDR;
 FLIGHT CONDITIONS : MVF
 REFERENCE FACILITY ID : MMEX
 FACILITY STATE : FO
 FACILITY TYPE : ARTCC; ARPT;
 FACILITY IDENTIFIER : MMEX; MMEX;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : ACFT EQUIPMENT PROBLEM/CRITICAL;
 ANOMALY DETECTOR : COCKPIT/FLC; COCKPIT/EQUIPMENT;
 ANOMALY RESOLUTION : NOT RESOLVED/OTHER;
 ANOMALY CONSEQUENCES : FAA INVESTIGATORY FOLLOW-UP; OTHER;
 NARRATIVE : TOTAL HYD FAILURE DUE TO FAILURE OF PWR

TRANSFER UNIT. CALLBACK CONVERSATION WITH RPTR REVEALED THE
 FOLLOWING INFO: RPTR STATED THAT THE TYPE OF ACFT AND RELATED HYD
 SYS BEING INOP RESULTED IN A TOUCHDOWN SPD OF APPROX 225 KTS!
 SINCE MOST ACFT FLT CTLS ARE HYD, THE **RUDDER** WAS MOVED MANUALLY.
 THE RPTR FURTHER STATED THAT HE HAD THE OPPORTUNITY TO PRACTICE
 'CLEAN' LNDGS RECENTLY IN THE COMPANY SIMULATOR WHICH HELPED HIM
 WITH THIS NIGHT TIME EMER. THERE WAS ONLY APPROX 1200 FT LEFT OF A
 12800 FT RWY. SINCE THE ACFT COULD NOT TAXI DUE TO NO BRAKES OR
 NOSEWHEEL STEERING, THE PAX WERE DEPLANED ON THE RWY. NO ONE WAS
 INJURED AND THE ACFT STAYED ON THE RWY FOR 5 HRS. INVESTIGATION
 DISCLOSED THAT THE HYD TRANSFER PUMP EXPLODED RENDERING THE TOTAL
 SYS OUT WITH NO FLUID. THE PART WAS FOUND TO BE DEFECTIVE FROM THE
 FACTORY.

SYNOPSIS : FLC OF AN ACR MLG ACFT DECLARED AN EMER

AFTER LOOSING ALL HYD SYS DURING DSCNT FOR LNDG.

REFERENCE FACILITY ID : MMEX
 FACILITY STATE : FO
 DISTANCE & BEARING FROM REF. : 25,,E
 MSL ALTITUDE : 17000,17000
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW, RETRACT, LAND, TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : DISPLAY, NAVCTL;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : DSCNT;
 SPECIAL ROUTE : ;
 AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 257191
 DATE OF OCCURRENCE : 9311
 REPORTED BY : FLC; ;
 PERSONS FUNCTIONS : FLC,PIC.CAPT; FLC,FO; TWR,LC;
 FLIGHT CONDITIONS : VMC
 REFERENCE FACILITY ID : TPA
 FACILITY STATE : FL
 FACILITY TYPE : TWR; ARPT;
 FACILITY IDENTIFIER : TPA; TPA;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : ACFT EQUIPMENT PROBLEM/CRITICAL;
 ANOMALY DETECTOR : COCKPIT/FLC;
 ANOMALY RESOLUTION : FLC ABORTED TKOF;
 ANOMALY CONSEQUENCES : OTHER;
 NARRATIVE : ACFT WAS PULLED INTO POS AND HOLD. FO
 CHKD FLT CTLS AT YOKE (**ELEVATOR** AND **AILERON**). CAPT CHKD **RUDDER**.
 CHKLISTS COMPLETE. TKOF CLRNC RECEIVED, THROTTLES ADVANCED. ACFT
 ROLLED ABOUT 50 FT WHEN FO SAID **RUDDER** COLLAPSED. **RUDDER** PEDAL
 ADJUSTMENT KNOB HAD APPEARED TO BE OUT AND LOCKED, BUT MIGHT NOT
 HAVE BEEN SO. ACFT WAS TURNED OFF OF FIRST TXWY FROM APCH END OF
 RWY 18R TPA. NO MOVEMENT OF AIRSPD INDICATORS WAS NOTED. ACFT GND
 SPD NEVER APPEARED TO EXCEED 20 KTS. AFTER WE TAXIED CLR OF ACTIVE
 RWY, COPLT'S **RUDDER** PEDALS WERE READJUSTED BY COPLT AND CHKD
 THOROUGHLY FOR MOVEMENT. THE **RUDDER** PEDALS WERE THEN STEPPED ON
 QUITE HEAVILY (LIFTING FO OUT OF SEAT) TO CONFIRM LOCKED IN POS.
 NORMAL TKOF ENSUED.

SYNOPSIS : AT BEGINNING OF TKOF ROLL, FO'S **RUDDER**
 ADJUSTMENT FAILED TO HOLD **RUDDER** PEDALS AND THEY COLLAPSED MAKING
 IT IMPOSSIBLE FOR FO TO MAKE ANY **RUDDER** INPUTS.

REFERENCE FACILITY ID : TPA
 FACILITY STATE : FL
 AGL ALTITUDE : 0,0
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : NAVCTL;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : TKOF,ABORT;
 SPECIAL ROUTE : NON;
 AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 252755
 DATE OF OCCURRENCE : 9309
 REPORTED BY : FLC; FLC;
 PERSONS FUNCTIONS : FLC,PIC.CAPT; FLC,FO;
 FLIGHT CONDITIONS : VMC
 REFERENCE FACILITY ID : DCA
 FACILITY STATE : DC
 FACILITY TYPE : ARPT;
 FACILITY IDENTIFIER : DCA;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : ACFT EQUIPMENT PROBLEM/LESS SEVERE;
 OTHER;
 ANOMALY DETECTOR : COCKPIT/FLC;
 ANOMALY RESOLUTION : FLC OVERCAME EQUIP PROBLEM;
 ANOMALY CONSEQUENCES : NONE;
 NARRATIVE : I PROCEEDED WITH MY COCKPIT CHKS.

EVERYTHING CHKED NORMAL. I THEN LEFT COCKPIT FOR A SHORT WHILE.
 WHEN I RETURNED AND SEATED IN MY SEAT I RESTED MY FEET ON THE
RUDDER PEDALS. I NOTICED MY L FOOT WAS FURTHER IN THAN THE R. I
 REACHED UP AND TURNED ON HYD PUMP THINKING THAT JET BLAST OR
 SURFACE WIND CAUSED **RUDDER** DISPLACEMENT. THIS DID NOT CORRECT SIT.
 ABOUT THEN, WE WERE READYING FOR PUSHBACK AND ENG START. AFTER ENG
 START AND ALL HYD PUMPS TURNED ON, **RUDDER** DISPLACEMENT DID NOT
 CHANGE. IT WAS THEN I RECHKED **RUDDER TRIM** AND FOUND IT TO BE 10
 DEGS L. CAUSE OF THIS IS UNDETERMINED. CALLBACK CONVERSATION WITH
 RPTR REVEALED THE FOLLOWING INFO: THE RPTING CAPT HAS NO NEW
 NOTIONS AS TO WHAT MAY HAVE HAPPENED HERE, UNLESS A WINDOW CLEANER
 MAY HAVE KICKED THE **TRIM** HANDLE. THE CAPT WAS NOT IN THE COCKPIT
 THE WHOLE TIME. HE HAS NOT SEEN OR HEARD OF THIS HAPPENING AGAIN.

SYNOPSIS : AN ACR MLG CREW FOUND THAT ITS **RUDDER**
TRIM SEEMED TO HAVE CHANGED 10 UNITS BY ITSELF.

REFERENCE FACILITY ID : DCA
 FACILITY STATE : DC
 DISTANCE & BEARING FROM REF. : 0
 AGL ALTITUDE : 0,0
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : DISPLAY,NAVCTL;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : PREFLT;
 SPECIAL ROUTE : ;
 AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 258849
 DATE OF OCCURRENCE : 9312
 REPORTED BY : FLC; ; ;
 PERSONS FUNCTIONS : FLC,PIC.CAPT; FLC,FO; TRACON,DC;
 FLIGHT CONDITIONS : VMC
 REFERENCE FACILITY ID : LAX
 FACILITY STATE : CA
 FACILITY TYPE : TRACON; ARPT;
 FACILITY IDENTIFIER : LAX; LAX;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : ACFT EQUIPMENT PROBLEM/CRITICAL;
 ANOMALY DETECTOR : COCKPIT/FLC;
 ANOMALY RESOLUTION : FLC OVERCAME EQUIP PROBLEM;
 ANOMALY CONSEQUENCES : NONE;
 SITUATION REPORT SUBJECTS : AN ACFT TYPE; ACFT EQUIPMENT;
 NARRATIVE : I WAS CAPT OF MLG NON STOP LAX-BWI. FO
 MADE THE TKOF. AT APPROX 1000 FT MSL, WHILE I WAS SWITCHING TO DEP
 CTL, I FELT THE ACFT **YAW**. AT FIRST I THOUGHT IT WAS WAKE TURB,
 THEN I CHKD THE ENG INSTS (NORMAL), THEN I CHKD THE **RUDDER TRIM**.
 I SAW THE **RUDDER TRIM** INDICATOR MOVING PAST 9 UNITS R **TRIM**. I
 GRABBED THE **RUDDER TRIM** CTL KNOB AND COMMANDED THE **RUDDER** BACK TO
 NEUTRAL. THE **RUDDER** RESPONDED AND WENT BACK TO NEUTRAL. THE FO
 HAND FLEW THE ACFT TO FL230 WHERE WE ENGAGED THE **AUTOPLT** AND
 PULLED THE **RUDDER TRIM** CTL CIRCUIT BREAKER. NO FURTHER PROBS WERE
 NOTED AND WE CONTINUED TO BWI AND WROTE UP THE **RUDDER TRIM**. OUR
 ACFT WAS AN ORIGINATOR IN LAX. I PERFORMED A **RUDDER TRIM** CHK PRIOR
 TO ENG START AND A FLT CTL CHK PRIOR TO TKOF. BOTH CHKS WERE
 NORMAL IN ALL RESPECTS. NO **RUDDER TRIM** KNOB STICKING WAS NOTED. NO
RUDDER TRIM INPUTS WERE MADE BY EITHER PLT PRIOR TO THE **TRIM**
 RUNNING AWAY. I DO NOT BELIEVE THIS PROB WAS CAUSED BY A STICKING
 KNOB. I WONDER IF THIS IS IN ANY WAY RELATED TO THE LGA ACCIDENT.
 I KNOW MOST OF US FLYING THIS ACFT WOULD PREFER THE OLD MECHANICAL
RUDDER TRIM SYS THAT IS ON THE MLG.
 SYNOPSIS : AN MLG EXPERIENCES A RUNAWAY **RUDDER**
TRIM DURING INITIAL CLB.
 REFERENCE FACILITY ID : LAX
 FACILITY STATE : CA
 DISTANCE & BEARING FROM REF. : 1,,SW
 MSL ALTITUDE : 1000,1000
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : DISPLAY,NAVCTL;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : ICLB;
 SPECIAL ROUTE : NON;
 AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 262802
DATE OF OCCURRENCE : 9401
REPORTED BY : FLC; ; ;
PERSONS FUNCTIONS : FLC,PIC.CAPT; FLC,FO; ARTCC,RDR;
FLIGHT CONDITIONS : VMC
REFERENCE FACILITY ID : BNA
FACILITY STATE : TN
FACILITY TYPE : ARTCC;
FACILITY IDENTIFIER : ZME;
AIRCRAFT TYPE : MLG;
ANOMALY DESCRIPTIONS : ACFT EQUIPMENT PROBLEM/CRITICAL;
ANOMALY DETECTOR : COCKPIT/FLC; COCKPIT/EQUIPMENT;
ANOMALY RESOLUTION : FLC OVERCAME EQUIP PROBLEM;
ANOMALY CONSEQUENCES : NONE;
NARRATIVE : THE FO WAS FLYING THE ACFT ON AUTOPLT

AT 37000 FT, WHEN HE INTRODUCED A SMALL AMOUNT OF R RUDDER TRIM. VERY SHORTLY, (3-4 SECONDS), THE ACFT STARTED A SMOOTH YAW TO THE L AND A ROLL TO THE R. BANK ANGLE APCHED 20 DEGS. THE AUTOPLT REMAINED ENGAGED UNTIL THE FO DISCONNECTED IT AND STARTED THE TRIM BACK TO THE L. THE TRIM REACHED AT LEAST 9 UNITS OF R TRIM BEFORE BEING RECTRED. THE ACFT WAS RETRIMMED AND AUTOPLT WAS RE-ENGAGED WITH NO FURTHER INCIDENT. CALLBACK CONVERSATION WITH RPTR REVEALED THE FOLLOWING INFO: RPTR CALLED BACK TO STATE THAT THE ACFT WAS A B-737-400. THE FO HAD ONLY 'TWEAKED' THE RUDDER TRIM A BIT TO CTR THE BALL AND IT MIGHT BE SURMISED THAT THE TRIM SWITCH HAD SOME FORM OF INTERNAL PROB THAT ALLOWED THE RUDDER TRIM TO GO TO THE NEAR 9 DEGS POS AFTER THE SWITCH WAS RELEASED. THE ITEM WAS WRITTEN UP IN THE LOGBOOK BUT THE POST-FLT FINDINGS ARE NOT KNOWN.

SYNOPSIS : ACFT POS ROLL YAW A CONCERN UNTIL FO
REALIZES THAT THE RUDDER TRIM WAS STILL ACTIVATED AFTER HAVING
RELEASED THE RUDDER TRIM SWITCH.

REFERENCE FACILITY ID : BNA
FACILITY STATE : TN
MSL ALTITUDE : 37000,37000
AIRCRAFT INVOLVEMENT : ANOMALY;
AIRCRAFT TYPE : MLG;
CREW SIZE : 2;
WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
NUMBER OF ENGINES : 2;
ADVANCED COCKPIT : DISPLAY,NAVCTL;
OPERATOR ORGANIZATION : ACR;
OPERATION : PAX;
FLIGHT PLAN TYPE : IFR;
FLIGHT PHASE : CRS;
SPECIAL ROUTE : OTH;
AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 266812
 DATE OF OCCURRENCE : 9403
 REPORTED BY : FLC; ; ;
 PERSONS FUNCTIONS : FLC,PIC.CAPT; FLC,FO; TRACON,DC;
 FLIGHT CONDITIONS : VMC
 REFERENCE FACILITY ID : YYZ
 FACILITY STATE : ON
 FACILITY TYPE : ARPT; ARTCC;
 FACILITY IDENTIFIER : YYZ; YYZ;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : ACFT EQUIPMENT PROBLEM/CRITICAL;
 ANOMALY DETECTOR : COCKPIT/FLC;
 ANOMALY RESOLUTION : FLC OVERCAME EQUIP PROBLEM;
 ANOMALY CONSEQUENCES : NONE;
 SITUATION REPORT SUBJECTS : AN ACFT TYPE; ACFT EQUIPMENT;
 NARRATIVE : OUR 737-400 STARTED TO **YAW** L DURING CLB,

RIGHT AFTER FINAL **FLAP** RETRACTION AND SETTING CLB PWR. MY INITIAL
 THOUGHT WAS THAT WE'D LOST AN ENG. A SCAN OF THE ENG INSTS SHOWED
 NO PROBS, SO I ASKED THE FO TO CHK THE **RUDDER TRIM** INDICATOR,
 BECAUSE I WAS OCCUPIED HAND FLYING WITH THE **TRIM** PROB. THE FO
 FOUND THE **RUDDER TRIM** POS INDICATOR MOVING SLOWLY TO THE L, AND
 PASSING 11 UNITS. HE PROMPTLY APPLIED RIGHT **TRIM** WITH THE **TRIM**
 KNOB UNTIL THE INDICATOR SHOWED 0 OR THE CTRED POS. NO FURTHER
 UNCOMMANDED **RUDDER TRIM** MOVEMENT WAS SEEN FOR THE REMAINDER OF THE
 FLT. CALLBACK CONVERSATION WITH RPTR REVEALED THE FOLLOWING INFO:
 RPTR CALLED BACK AND STATED THAT THE **RUDDER TRIM** WAS NOT TOUCHED
 BY ANY CREW MEMBER PRIOR TO ITS 'RUNNING ON ITS OWN.' THIS WAS THE
 SAME TYPE ACFT THAT EXPERIENCED THE SIMILAR INCIDENT OF RUNNING ON
 IT'S OWN BUT THE OTHER INCIDENT OCCURRED AFTER THE FO HAD
 INITIATED SOME INPUT INTO THE **TRIM** SWITCH AND THEN RELEASED IT.
 SAME ACR BUT DIFFERENT ACFT ID. OTHER ACN WAS 262802.

SYNOPSIS : ACFT POS ROLL **YAW** INTERPRETED AS
 POSSIBLE ENG FAILURE IN CLB UNTIL PIC AND FO REALIZE THAT THE
RUDDER TRIM WAS **TRIMMING** TO THE L ON AN UNCOMMANDED ACTION.

REFERENCE FACILITY ID : YYZ
 FACILITY STATE : ON
 DISTANCE & BEARING FROM REF. : 5,,SW
 AGL ALTITUDE : 2000,2000
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : DISPLAY,NAVCTL;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : CLB;
 SPECIAL ROUTE : OTH;
 AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 267516
 DATE OF OCCURRENCE : 9403
 REPORTED BY : FLC; ; ;
 PERSONS FUNCTIONS : FLC,FO; FLC,PIC.CAPT; TRACON,DC;
 FLIGHT CONDITIONS : VMC
 REFERENCE FACILITY ID : YYZ
 FACILITY STATE : ON
 FACILITY TYPE : ARPT; TRACON;
 FACILITY IDENTIFIER : YYZ; YYZ;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : ACFT EQUIPMENT PROBLEM/CRITICAL; OTHER;
 ANOMALY DETECTOR : COCKPIT/FLC;
 ANOMALY RESOLUTION : FLC OVERCAME EQUIP PROBLEM;
 ANOMALY CONSEQUENCES : NONE;
 SITUATION REPORT SUBJECTS : AN ACFT TYPE; ACFT EQUIPMENT;
 NARRATIVE : ENRTE FROM YYZ TO PHL WHILE I WAS

EXECUTING THE PNF DUTIES AND COMMUNICATING WITH ATC. CAPT CALLED FOR ME TO CHK THE **RUDDER TRIM**. WHEN I LOOKED THE **TRIM** INDICATOR APPEARED TO BE MOVING BTWN 10 AND 11 UNITS L. I BEGAN TO MOVE THE INDICATOR BACK TO CTR AFTER STATING TO CAPT THE POS INDICATED. HE STATED HE THOUGHT WE MIGHT HAD BEEN HAVING AN ENG FAILURE DUE TO **YAW**, HE STARTED TO ~~FUEL~~. BUT ALL ENG INDICATORS WERE **RUDDER TRIM**. THE FLT WAS CONTINUED UNEVENTFULLY WITH NO OTHER OCCURRENCE OF UNCOMMANDED **RUDDER TRIM** NOTED. WE LANDED IN PHL. CAPT THEN MADE REQUIRED LOG BOOK WRITE UP.

SYNOPSIS : RWY **RUDDER TRIM**.
 REFERENCE FACILITY ID : YYZ
 FACILITY STATE : ON
 DISTANCE & BEARING FROM REF. : 10,,SW
 MSL ALTITUDE : 8000,12000
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : DISPLAY,NAVCTL;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : CLB;
 SPECIAL ROUTE : OTH;
 AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 154233
 DATE OF OCCURRENCE : 9008
 REPORTED BY : FLC;
 PERSONS FUNCTIONS : FLC,FO;
 REFERENCE FACILITY ID : ZZZ
 FACILITY STATE : US
 FACILITY TYPE : ARPT;
 FACILITY IDENTIFIER : XXX;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : ACFT EQUIPMENT PROBLEM/LESS SEVERE;
 ANOMALY DETECTOR : COCKPIT/FLC;
 ANOMALY RESOLUTION : NOT RESOLVED/ANOMALY ACCEPTED;
 ANOMALY CONSEQUENCES : NONE;
 SITUATION REPORT SUBJECTS : AN ACFT TYPE; ACFT EQUIPMENT;
 NARRATIVE : THIS LETTER REFERENCES A WEAKNESS OF

SAFETY WARNINGS ON THE ADVANCED MLG. THE **RUDDER TRIM** SWITCH (A KNOB) SHOULD HAVE A MECHANICAL GUARD AROUND IT, SO THE ADJUSTMENT CAN'T BE CHANGED INADVERTENTLY BY A JUMPSEAT RIDER RESTING A FOOT AGAINST THE KNOB. ALSO, THE **TRIM** SWITCH RANGE ADJUSTMENT SHOULD BE WIRED INTO THE TKOF WARNING SYS IN A METHOD SIMILAR TO THE PITCH **TRIM** RANGE; IE, IF THE **RUDDER TRIM** SETTING UNTIL WITHIN +/- OF CTR, THE SYS SOUNDS THE TKOF WARNING SYS. REFER TO THE CRASH AT LGA, DUE TO THIS DEFECT.

SYNOPSIS : REPORTER NOTES DESIGN DEFICIENCY IN
RUDDER TRIM ON ADVANCED MLG.

REFERENCE FACILITY ID : ZZZ
 FACILITY STATE : US
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : DISPLAY,NAVCTL;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : PREFLT,TKOF;
 SPECIAL ROUTE : ;
 AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 139239
 DATE OF OCCURRENCE : 9003
 REPORTED BY : FLC; ; ;
 PERSONS FUNCTIONS : FLC,PIC.CAPT; FLC,FO; MISC,GNDCREW;
 FLIGHT CONDITIONS : VMC
 REFERENCE FACILITY ID : DCA
 FACILITY STATE : DC
 FACILITY TYPE : ARPT;
 FACILITY IDENTIFIER : DCA;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : OTHER; ACFT EQUIPMENT PROBLEM/LESS
 SEVERE;
 ANOMALY DETECTOR : COCKPIT/FLC;
 ANOMALY RESOLUTION : NOT RESOLVED/ANOMALY ACCEPTED; OTHER;
 ANOMALY CONSEQUENCES : NONE;
 SITUATION REPORT SUBJECTS : ACFT EQUIPMENT; PROC OR POLICY/COMPANY;
 PROC OR POLICY/FAA;

NARRATIVE : DURING TAXI I NOTICED THE **RUDDER TRIM** INDICATOR MOVING 5 DEG EITHER SIDE OF ZERO **TRIM** POS. I RESET THE **RUDDER TRIM** INDICATOR CB AND THE **TRIM** INDICATOR MOVED TO ZERO **TRIM**. I WROTE THE PROB IN THE ACFT'S LOGBOOK. MAINT ALSO NOTICED THE SAME INDICATION MOVEMENTS WHILE ACFT SITTING AT THE GATE. THEY DID NOT HAVE THE PARTS TO REPAIR IT, SO THEY MEL'ED THE SYS. I COMPLAINED THAT THIS WAS STILL UNSAFE SHOULD I RECEIVE AN UNCOMMANDED INPUT TO THE **RUDDER TRIM**, I WOULD HAVE NO INDICATION UNLESS MY FEET WERE ON THE **RUDDER** PEDALS WHEN THEY MOVED. THE MECH STATED THIS WAS A FAA APPROVED PROC. CONSIDERING THE ACCIDENT THAT OCCURRED IN LGA REGARDING THE **RUDDER TRIM**, I WAS QUITE SURPRISED THE FAA WOULD ALLOW AN ACFT TO DISPATCH WITH THE **RUDDER TRIM** INDICATOR INOP. I HAVE SINCE CONTACTED MY LCL AIR SAFETY REPRESENTATIVE AND INFORMED HIM THAT THIS PROB NEEDS TO BE ADDRESSED. THE COMPANY WAS ALSO NOTIFIED. TKOF WITH AN UNDETECTED **RUDDER TRIM** IN AN EXTREME L OR R POS WOULD BE DISASTROUS. CALLBACK CONVERSATION WITH RPTR REVEALED FOLLOWING INFO. THE HAZARD FOR INFLT AS I SEE IT IS THAT IF A RWY **RUDDER TRIM** OCCURRED IN FLT THE FIRST INDICATION WOULD BE WHEN THE **AUTOPLT** TRIPPED OFF BECAUSE OF TOO MUCH **RUDDER** INPUT AND THE ACFT MIGHT BECOME, AT LEAST MOMENTARILY, **UNCONTROLLABLE**. IT IS PROBABLE THAT THE FLT CREW WOULD NOT NOTICE THE INDICATOR MOVING UNTIL THEY DID DETECT A **CONTROL** PROB EVEN IF IT (R **TRIM** INDICATOR) WAS OPERATING NORMALLY. THE ONLY INPUT TO CAUSE A RUNAWAY **RUDDER** WOULD BE A SPURIOUS SIGNAL OF SOME KIND THAT MAINT SAYS COULD NEVER HAPPEN BUT I BELIEVE ANYTHING ELECTRICALLY CTLED CAN DO THE IMPOSSIBLE AT THE MOST EMBARRASSING TIME. I HAVE TAKEN THE MEL TO COMPANY AND MY SAFETY REPRESENTATIVE AND IT IS BEING DISCUSSED AND REEXAMINED.

SYNOPSIS : MLG ACFT **RUDDER TRIM** INDICATOR INOPERATIVE. ACFT DISPATCHED PER MEL WITH INDICATOR INOPERATIVE.

REFERENCE FACILITY ID : DCA
 FACILITY STATE : DC
 AGL ALTITUDE : 0,0
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : NON;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : PREFLT;

SPECIAL ROUTE
AIRCRAFT HANDLE

: ;
: A1;

ACCESSION NUMBER : 143657
 DATE OF OCCURRENCE : 9003
 REPORTED BY : FLC; ; ;
 PERSONS FUNCTIONS : FLC,PIC.CAPT; FLC,FO; ARTCC,RDR;
 FLIGHT CONDITIONS : VMC
 REFERENCE FACILITY ID : MMEX
 FACILITY STATE : FO
 FACILITY TYPE : ARTCC;
 FACILITY IDENTIFIER : MMEX;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : OTHER; ACFT EQUIPMENT PROBLEM/CRITICAL;
 ANOMALY DETECTOR : COCKPIT/FLC;
 ANOMALY RESOLUTION : FLC OVERCAME EQUIP PROBLEM; OTHER;
 ANOMALY CONSEQUENCES : NONE;
 SITUATION REPORT SUBJECTS : AN ACFT TYPE; ACFT EQUIPMENT;
 NARRATIVE : ON DEP FROM MEXICO CITY ON A SCHEDULED

FLT TO SAN FRANCISCO THE COPLT WAS MANUALLY FLYING THE ACFT.
 CLIMBING THRU FL240 HE ADDED SOME RIGHT **RUDDER TRIM**. HE THEN FELT
 THAT HE HAD TO PUT IN **AILERON** TO MAINTAIN WINGS LEVEL. THEN HE
 SAID, "HEY, WE HAVE A RUNAWAY **RUDDER TRIM**." I LOOKED DOWN AT THE
 CONSOLE AND NOTED THE **RUDDER TRIM** INDICATOR JUST MOVING PAST 5 DEG
 RIGHT **RUDDER**. THE COPLT THEN MOVED THE **TRIM** KNOB TO THE LEFT AND
 THE RIGHT **TRIM** STOPPED AND THE **RUDDER** RETURNED TO HIS DESIRED **TRIM**
 POSITION.

SYNOPSIS : ACFT ELECTRIC **RUDDER TRIM** MOMENTARILY
 FAILED TO SHUT OFF AFTER ACTIVATION BY FLT CREW.
 REFERENCE FACILITY ID : MMEX
 FACILITY STATE : FO
 MSL ALTITUDE : 24000,24000
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : DISPLAY,NAVCTL;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : CLB;
 SPECIAL ROUTE : ;
 AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 146812
 DATE OF OCCURRENCE : 9005
 REPORTED BY : FLC; ;
 PERSONS FUNCTIONS : FLC,FO; FLC,PIC.CAPT;
 FLIGHT CONDITIONS : IMC
 REFERENCE FACILITY ID : OAK
 FACILITY STATE : CA
 FACILITY TYPE : ARPT;
 FACILITY IDENTIFIER : OAK;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : OTHER; ACFT EQUIPMENT PROBLEM/CRITICAL;
 ANOMALY DETECTOR : COCKPIT/FLC;
 ANOMALY RESOLUTION : OTHER;
 ANOMALY CONSEQUENCES : NONE;
 SITUATION REPORT SUBJECTS : AN ACFT TYPE; ACFT EQUIPMENT;
 NARRATIVE : WE PICKED UP ACT XXXX IN OAKLAND. ACFT

WAS UNPOWERED AND WE PWRED UP WITH GND PWR 90 MINS BEFORE DEP.
 PERFORMED ORIGINATING CHKS 30 MINS PRIOR TO DEP AND FOUND **RUDDER TRIM**
TRIM TO BE CENTERED. 5 MINS BEFORE DEP AS I ADJUSTED MY SEAT I
 NOTICED THE **RUDDER** PEDALS WERE DISPLACED. WE FOUND THE **RUDDER TRIM**
 TO BE FULLY DEFLECTED TO THE R. WE BELIEVE THE **RUDDER TRIM**
 ACTUATED BY ITSELF AS THE **RUDDER TRIM** SWITCH WAS NOT TOUCHED THE
 ENTIRE TIME. THE PWR SOURCE WAS NOT CHANGED, THIS SOUNDS VERY
 SIMILAR TO LGA AS IT WAS ALSO RAINING IN OAK. I BELIEVE NOW THAT
 THE **RUDDER TRIM** CAN RUNAWAY AT ANY TIME AND THAT A **TRIM-IN-MOTION**
 HORN AND A TKOF **TRIM** POS WARNING ARE MANDATORY. A SWITCH GUARD
 WILL NOT SOLVE THE PROBLEM. THANKS FOR THE FIL EXPLAINING HOW TO
 DETECT **TRIM** DISPLACEMENT. CALLBACK CONVERSATION WITH RPTR REVEALED
 THE FOLLOWING INFO. RPTR IS CERTAIN THAT **RUDDER TRIM** INPUT WAS NOT
 COCKPIT ACTION INDUCED. HE OFFERS THE THEORY THAT THE PREVAILING
 WX CONDITIONS PRIMARILY RAIN MAY HAVE AFFECTED THE **TRIM** SWITCHES
 ALTHOUGH HE ADMITS THAT IT SEEMS UNLIKELY. THE CAPT IS CERTAIN
 THAT THE **TRIM** AND **RUDDER** POS WAS CENTERED WHEN CHKED DURING
 COCKPIT SETUP AND THAT THE MOVEMENT TOOK PLACE THEREAFTER. RPTR
 STATES THAT HE RECENTLY FLEW A BRAND NEW EXAMPLE OF THIS ACFT AND
 NOTED THAT IT HAD A MODIFIED **TRIM** ACTIVATION SYS SO THE PROB HAS
 BEEN ACTED ON TO SOME EXTENT BY THE ACFT MFR.

SYNOPSIS : FLC DISCOVERS FULL **RUDDER TRIM** INPUT ON
 ADVTECH MLG DURING PREFLT.
 REFERENCE FACILITY ID : OAK
 FACILITY STATE : CA
 AGL ALTITUDE : 0,0
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : DISPLAY,NAVCTL;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : PREFLT;
 SPECIAL ROUTE : ;
 AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 148673
 DATE OF OCCURRENCE : 9006
 REPORTED BY : FLC; ;
 PERSONS FUNCTIONS : FLC,PIC.CAPT; FLC,FO;
 FLIGHT CONDITIONS : MXD
 REFERENCE FACILITY ID : ORD
 FACILITY STATE : IL
 FACILITY TYPE : ARPT; TRACON;
 FACILITY IDENTIFIER : ORD; ORD;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : ACFT EQUIPMENT PROBLEM/LESS SEVERE;
 ANOMALY DETECTOR : COCKPIT/FLC;
 ANOMALY RESOLUTION : FLC OVERCAME EQUIP PROBLEM; ACFT EQUIP
 PROBLEM RESOLVED ITSELF;
 ANOMALY CONSEQUENCES : NONE;
 NARRATIVE : AFTER USING ELECTRIC **RUDDER TRIM** CTL TO
TRIM THE ACFT, SYS CONTINUED TO INPUT L **RUDDER TRIM** AFTER CTL KNOB
 WAS RELEASED AND HAD RETURNED TO CTR POS. ACFT WAS **RETRIMMED** AND
 PROB COULD NOT BE DUPLICATED.
 SYNOPSIS : ACR MLG HAD A MINOR **RUDDER TRIM**
 MALFUNCTION.
 REFERENCE FACILITY ID : ORD
 FACILITY STATE : IL
 DISTANCE & BEARING FROM REF. : 30,,SO
 MSL ALTITUDE : 15000,15000
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : DISPLAY,NAVCTL;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : CLB;
 SPECIAL ROUTE : NON;
 AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 113055
 DATE OF OCCURRENCE : 8906
 REPORTED BY : FLC; ; ;
 PERSONS FUNCTIONS : FLC,PIC.CAPT; FLC,FO; ARTCC,RDR;
 FLIGHT CONDITIONS : MXD
 REFERENCE FACILITY ID : BWI
 FACILITY STATE : MD
 FACILITY TYPE : ARTCC;
 FACILITY IDENTIFIER : ZDC;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : ACFT EQUIPMENT PROBLEM/CRITICAL;
 ANOMALY DETECTOR : COCKPIT/FLC;
 ANOMALY RESOLUTION : FLC OVERCAME EQUIP PROBLEM; NOT
 RESOLVED/UNABLE;
 ANOMALY CONSEQUENCES : NONE;
 NARRATIVE : ACFT **YAWED** VIOLENTLY PASSING 18,000',
 FOLLOWED IMMEDIATELY BY 2ND **YAW** WITH RIGHT WING RISING. SINCE
AUTOPLT WAS ENGAGED IT WAS DISCONNECTED AND STRONG FORCE USED TO
 LEVEL WINGS. NO HYD OR FLT CTL LIGHTS. EMER DECLARED AND RETURNED
 TO BWI. DID NOT USE **RUDDER**, **AILERON** AND **ELEVATOR** FELT NORMAL.
RUDDER FELT NORMAL AFTER LNDG. SUSPECT **RUDDER**, **YAW** DAMPER, OR
AUTOPLT PROBLEM.
 SYNOPSIS : ACFT EXPERIENCED VIOLENT **YAW** AS IT
 CLIMBED THRU FL180. RETURNED AND LANDED SAFETY AT DEP ARPT.
 REFERENCE FACILITY ID : BWI
 FACILITY STATE : MD
 DISTANCE & BEARING FROM REF. : 55,,NW
 MSL ALTITUDE : 18000,18000
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : NON;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : FERRY;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : CLB,EMER;
 SPECIAL ROUTE : ;
 AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 114919
 DATE OF OCCURRENCE : 8906
 REPORTED BY : FLC; FLC;
 PERSONS FUNCTIONS : FLC,PIC.CAPT; FLC,FO;
 FLIGHT CONDITIONS : VMC
 REFERENCE FACILITY ID : MCI
 FACILITY STATE : MO
 FACILITY TYPE : TRACON;
 FACILITY IDENTIFIER : MCI;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : OTHER; ACFT EQUIPMENT PROBLEM/CRITICAL;
 ANOMALY DETECTOR : COCKPIT/FLC;
 ANOMALY RESOLUTION : FLC REGAINED ACFT **CONTROL**; FLC OVERCAME
 EQUIP PROBLEM;
 ANOMALY CONSEQUENCES : NONE;
 SITUATION REPORT SUBJECTS : ACFT EQUIPMENT;
 NARRATIVE : IMMEDIATELY AFTER TKOF ACFT BEGAN AN
 ABRUPT **YAWING** MOTION (NO DUTCH ROLL EFFECT). TURNED OFF **YAW** DAMPER
 SWITCH, THEN BACK ON. **YAWING** MOTION CEASED. CONTINUED CLIMB.
 SHORTLY THEREAFTER, **YAWING** MOTION RESUMED. CYCLED **YAW** DAMPER
 SWITCH OFF AND ON, BUT WITH NO AFFECT. REDUCED POWER AND RATE OF
 CLIMB. CHECK SYSTEMS AND INDICATIONS. NOTED NO ABNORMALITIES.
 ADVISED ATC OF INTENT TO RETURN TO DEP ARPT (MCI) AND LAND. LANDED
 WITHOUT INCIDENCE. NO EMER DECLARED. MAINT FOUND **YAW** DAMPER
 COUPLER BAD (FAILED RATE GYRO). REPLACED UNIT. DEPARTED AGAIN AND
 PROCEEDED TO DEST WITHOUT INCIDENCE.
 SYNOPSIS : FLT CREW OF MLG DETERMINED **YAW** DAMPER
 WAS INOPERATIVE. RETURNED TO DEP ARPT (MCI) AND LANDED.
 REFERENCE FACILITY ID : MCI
 FACILITY STATE : MO
 DISTANCE & BEARING FROM REF. : 15,30
 MSL ALTITUDE : 13000,13000
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : NAVCTL;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : CLB,LNDG;
 SPECIAL ROUTE : ;
 AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 128508
 DATE OF OCCURRENCE : 8911
 REPORTED BY : FLC; ;
 PERSONS FUNCTIONS : FLC,FO; MISC,GNDCREW;
 REFERENCE FACILITY ID : DFW
 FACILITY STATE : TX
 FACILITY TYPE : ARPT;
 FACILITY IDENTIFIER : DAL;
 AIRCRAFT TYPE : MLG;
 ANOMALY DESCRIPTIONS : ACFT EQUIPMENT PROBLEM/LESS SEVERE;
 ANOMALY DETECTOR : COCKPIT/FLC;
 ANOMALY RESOLUTION : OTHER;
 ANOMALY CONSEQUENCES : OTHER;
 SITUATION REPORT SUBJECTS : ACFT EQUIPMENT;
 NARRATIVE : APPROX 1 YR AGO, DURING PREFLT, THE

ELECTRIC **RUDDER TRIM** WOULD NOT RETURN TO CENTER POS WHEN RELEASED. MAINT WAS ADVISED. THE **RUDDER TRIM** KNOB WAS EITHER TOO CLOSE TO THE PEDESTAL OR DIRT UNDER THE KNOB WOULD NOT ALLOW KNOB TO SPRING LOAD TO CENTER. MAINT INCREASED THE SPACING BTWN THE KNOB AND THE PEDESTAL AND THE **RUDDER TRIM** THEN WORKED PROPERLY. RECOMMENDED ACTION: SPACING APPEARS TO BE CRITICAL, ESPECIALLY AS THE PANEL BECOMES CONTAMINATED WITH DIRT. INCREASED SPACING WOULD PREVENT THIS RECURRENCE.

SYNOPSIS : FLT CREW COMPLAINS THAT THE ELECTRIC **RUDDER TRIM CONTROL** DOES NOT ALWAYS RETURN TO NEUTRAL POSITION WHEN RELEASED.

REFERENCE FACILITY ID : DFW
 FACILITY STATE : TX
 AIRCRAFT INVOLVEMENT : ANOMALY;
 AIRCRAFT TYPE : MLG;
 CREW SIZE : 2;
 WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
 NUMBER OF ENGINES : 2;
 ADVANCED COCKPIT : NON;
 OPERATOR ORGANIZATION : ACR;
 OPERATION : PAX;
 FLIGHT PLAN TYPE : IFR;
 FLIGHT PHASE : PREFLT;
 SPECIAL ROUTE : NON;
 AIRCRAFT HANDLE : A1;

ACCESSION NUMBER : 129500
DATE OF OCCURRENCE : 8911
REPORTED BY : FLC;
PERSONS FUNCTIONS : FLC,PIC.CAPT;
REFERENCE FACILITY ID : DEN
FACILITY STATE : CO
FACILITY TYPE : ARPT;
FACILITY IDENTIFIER : DEN;
AIRCRAFT TYPE : MLG;
ANOMALY DESCRIPTIONS : NO SPECIFIC ANOMALY OCCURRED; ACFT
EQUIPMENT PROBLEM/LESS SEVERE;
ANOMALY DETECTOR : COCKPIT/FLC;
ANOMALY RESOLUTION : OTHER;
ANOMALY CONSEQUENCES : OTHER;
NARRATIVE : DURING COCKPIT SETUP I RAN THE ELECTRIC
RUDDER TRIM IN BOTH DIRECTIONS. THE TRIM POINTER REMAINED AT ZERO,
THEN JUMPED 5 UNITS. RAN TRIM SEVERAL TIMES OBSERVING RUDDER
PEDALS MOVING. ABOUT HALF OF THE TIMES THE POINTER WOULD HANG UP
THEN JUMP. MAINT REPLACED INDICATOR BEFORE DEP. AT NO TIME DID THE
FLAG APPEAR. I RECOMMEND DURING COCKPIT SET UP TO ACTUALLY OPERATE
THE RUDDER TRIM RATHER THAN JUST CHECKING FOR ZERO TRIM.
SYNOPSIS : REPORTER DISCOVERS THAT RUDDER TRIM
INDICATOR IS DEFECTIVE DURING HIS PREFLT INSPECTION.
REFERENCE FACILITY ID : DEN
FACILITY STATE : CO
AGL ALTITUDE : 0,0
AIRCRAFT INVOLVEMENT : ANOMALY;
AIRCRAFT TYPE : MLG;
CREW SIZE : 2;
WINGS, GEAR, SURFACE, ENGINE : LOW,RETRACT,LAND,TURBOJET;
NUMBER OF ENGINES : 2;
ADVANCED COCKPIT : DISPLAY,NAVCTL;
OPERATOR ORGANIZATION : ACR;
OPERATION : PAX;
FLIGHT PLAN TYPE : IFR;
FLIGHT PHASE : PREFLT;
SPECIAL ROUTE : ;
AIRCRAFT HANDLE : A1;