

中国民用航空局
GENERAL ADMINISTRATION OF CIVIL AVIATION OF CHINA

型号认可证数据单

THE VALIDATION DATA SHEET

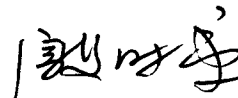
编号/No: VTC0061A

版次/Revision: 1

型号/Type: Learjet 55

Learjet 60

批准人/Approved By:



日期/Date: 2009 年 12 月 24 日

本数据单是型号认可证(编号: VTC0061A)的组成部分, 它规定了符合中国民用航空局的适航要求所颁发此型号认可证的产品状态和限制。

This data sheet, which is part of Validation of Type Certificate (No: VTC0061A), prescribes condition and limitation under which the product for which the type certificate was issued meets the airworthiness requirements of the Chinese Civil Aviation Regulation.

型号认可证持有人/Validation of Type Certificate Holder:

Learjet Inc.

One Learjet Way

Wichita, Kansas 67209-2942

有效页清单/List of effective pages :

页数/ Pages	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
版次/Revision	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0
页数/ Pages	16	17	18	19	20	21	22	23							
版次/Revision	0	0	1	1	0	0	1	1							

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第 1 部分 总则（所有型别）

SECTION 1 GENERAL(ALL MODELS)

1. CAAC 认可数据单和型号合格证数据单

CAAC Validation Data Sheet and Type Certificate Data Sheet

	中国民用航空总局认可数据单号、版次和颁发日期 CAAC Validation Data Sheet Number, Revision and issuance date	型号合格证数据单号、版次和颁发日期 Type Certificate Data Sheet Number, Revision and issuance date
当前/ Current	VTC0061A, Revision 1, 2009 年 12 月 24 日	FAA TCDS A10CE, Rev.62, Nov.20, 2009
历史/ History	VTC039A for Learjet 55, 1995 年 8 月 10 日 VTC061A for Learjet 60, 1996 年 7 月 26 日	FAA TCDS A10CE, Rev.46, Aug.15,1994 FAA TCDS A10CE, Rev.47, Jun.15,1995

2. 适航类别/Airworthiness Category: 运输类航空器/ Transport Category aircraft

3. 认可当局/Validation Authority: 中国民用航空局/CAAC
审定当局/Certifying Authority: 美国联邦航空局/FAA

4. 型号合格证持有人/Type Certificate Holder: Learjet Inc.
One Learjet Way
Wichita, Kansas 67209-2942

5. 认可审定基础/Validation Certification Basis

CAAC 的认可审定基础由 FAA 的审定基础（见 FAA 型号合格证数据单：编号 A10CE）和 CAAC 的附加技术条件组成。

The CAAC validation basis consists of the FAA certification basis (refer to FAA Type Certificate Data Sheet No. A10CE) and the CAAC additional technical conditions.

6. 中国民用航空局特殊要求/CAAC Special Requirements

交付到中国的每一架特定的航空器须满足下述特殊要求：

Each of specific aircraft delivered to China shall meet the following Special Requirements:

(1) 符合所有适用的 FAA 颁布的适航指令；

All applicable airworthiness directives (ADs) issued by the FAA shall be complied with.

第 2 部分/SECTION 2: Learjet 55

I. 总则/General

1. 衍生型/Variant or Model: Learjet 55
2. 适航类别/Airworthiness Category: 运输类航空器/Transport category Aircraft
3. 型号合格证持有人/Type Certificate Holder: Learjet Inc.
One Learjet Way
Wichita, Kansas 67209-2942
4. FAA 批准日期/FAA Approved Date: 1981.03.18/Mar.18, 1981
5. CAAC 批准日期/CAAC Approved Date: 1995.08.10/Aug.10, 1995

II. 认可审定基础/Validation Certification Basis

CAAC 的认可审定基础由 FAA 的审定基础(详见 FAA 型号合格证数据单: 编号 A10CE 中的 Learjet 55 型别部分的审定基础)和 CAAC 如下附加技术条件组成:

The CAAC validation basis consists of the FAA certification basis (refer to the certification basis of model 55 in FAA Type Certificate Data Sheet No. A10CE) and the following CAAC additional technical conditions:

交付中国的每架 Learjet 55 型飞机还必须满足以下 FAR 条款要求并经 CAAC 批准:

In additional, each of Learjet model 55 aircraft delivered to China is needed to satisfy the following FARs and must be approved by CAAC:

FAR25.812 Amdt. 25-58
FAR25.853 Amdt. 25-59/-61/-66
FAR25.855 Amdt. 25-60
FAR25.1457 Amdt. 25-65
FAR25.1459 Amdt. 25-65

III. 技术特征和运行限制/Technical Characteristics and Operational Limitations

发动机/Engines: (标准/Standard) 两台 Garrett TFE-731-3A-2B1 发动机/
Two Garrett TFE-731-3A-2B1
(可选/Optional) 两台 Garrett TFE-731-3A-2B 发动机(带燃油加温器)/
Two Garrett TFE-731-3A-2B (with fuel heaters)
两台 Garrett TFE-731-3AR-2B1 发动机/
Two Garrett TFE-731-3AR-2B1
两台 Garrett TFE-731-3AR-2B 发动机(带燃油加温器)/
Two Garrett TFE-731-3AR-2B (with fuel heaters)

燃油/Fuel: 见注释 5(b)/See NOTE 5(b).

发动机限制/Engine Limits:

	TFE-731-3A-2B 或/or TFE-731-3A-2B1	TFE-731-3AR-2B 或/or TFE-731-3AR-2B1
额定推力/Thrust ratings (lb.)		
起飞(标准日), 海平面静态(5 分钟)/ Takeoff (standard day), static Sea level (5 min.)	3700	3880
最大连续, 海平面静态/ Maximum continuous, static Sea level	3700	3700

最大允许发动机转子转速/Maximum permissible engine rotor operating speeds

低压/Low pressure (r.p.m.)	21,000 (101.5% N ₁)	21,000 (101.5% N ₁)
高压/High pressure (r.p.m.)	29,692 (100% N ₂)	29,989 (101% N ₂)

101.5% 至/to 103% N₁ r.p.m.

限制为 1 分钟/Limited to 1 minute

100% 至/to 103% N₂ r.p.m.

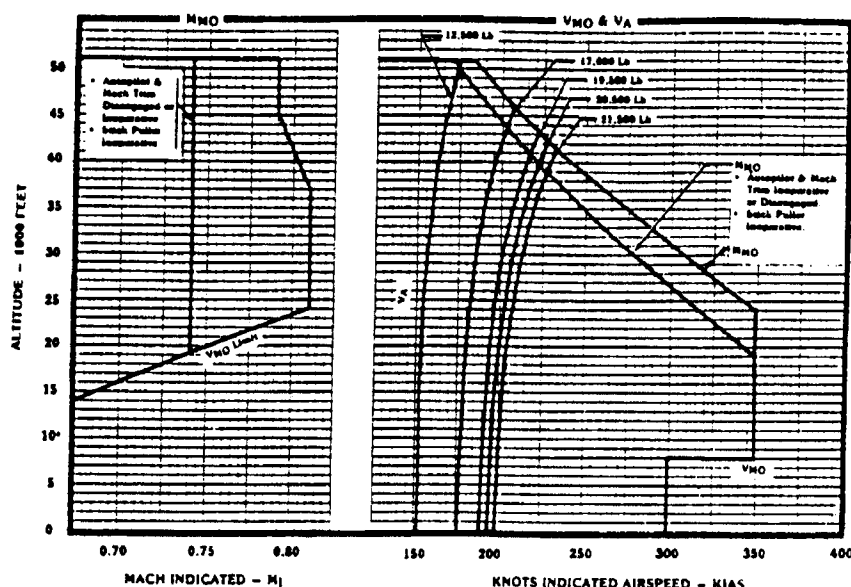
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最大允许级间涡轮燃气温度/Maximum permissible interstage turbine gas temperatures:

起飞/Takeoff (5 分钟/min.)	907°C	929°C
最大连续/Maximum continuous	885°C	885°C
最大起飞瞬态/Maximum takeoff transient (10 秒/sec.)	917°C	939°C
最大瞬态用于启动/Maximum transient for starting	907°C	907°C

空速限制/Airspeed Limits (IAS)(见注释 4/See NOTE 4):

空速/马赫限制/AIRSPEED/MACH LIMITS



V _{FE}	襟翼/Flaps 8°	200 KIAS
	襟翼/Flaps 20°	200 KIAS
	襟翼/Flaps 40°	150 KIAS
V _{LO}	(起落架操作/Landing gear operating)	200 KIAS
V _{LE}	(起落架放下/Landing gear extended)	260 KIAS
V _{SB}	(扰流板伸出/Spoilers extended)	低于 V _{MO} 或 M _{MO} 的任何速度, 除非在襟翼伸出状态下飞行中禁止伸出/Any speed below V _{MO} or M _{MO} except extension is prohibited in flight with flaps extended

V _{MCA}	APR Off*	APR On*	APR Off**	APR On**
8° 襟翼/flap	104 KIAS	106 KIAS	111 KIAS	113 KIAS
20° 襟翼	99 KIAS	101 KIAS	105 KIAS	107 KIAS

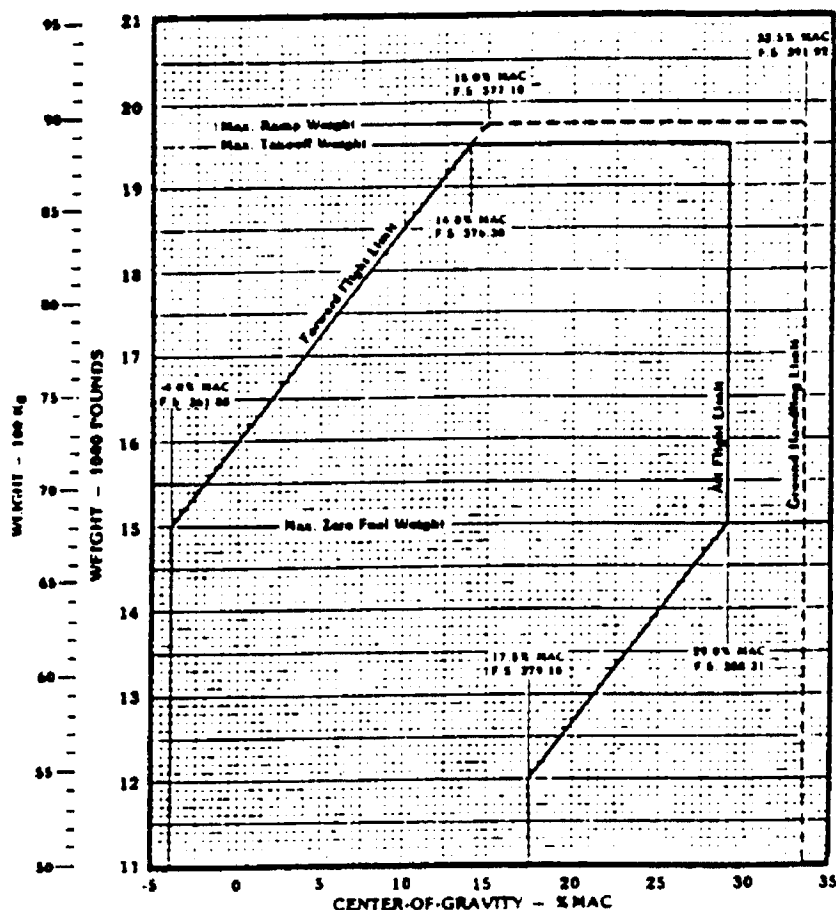
/flap
V_{MCG}

90 KIAS
*海平面/Sea
level, -40°C.

90 KIAS

94 KIAS 105 KIAS
**海平面/Sea
level, -53.9°C.

重心包线/Center of Gravity Envelope



前飞行限制—重量 15,000 磅(6,804 公斤)(含)以下为 F.S. 361.88 (-4.0% MAC), 到 19,500 磅(8,845 公斤)时逐步变化为 F.S. 376.30 (14.0% MAC)。

Forward Flight Limit - F.S. 361.88 (-4.0% MAC) for all weights up to and including 15,000 pounds (6,804 kg.) and tapers through F.S. 376.30 (14.0% MAC) at 19,500 pounds (8,845 kg.)

后飞行限制—重量 12,000 磅(5,443 公斤)(含)以下为 F.S. 379.10 (17.5% MAC), 到 15,000 磅(6,804 公斤)时逐步变化为 F.S. 388.31 (29.0% MAC), 并且直至 19,500 磅(8,845 公斤)(含)时保持为 F.S. 388.31 (29.0% MAC)。

Aft Flight Limit - F.S. 379.11 (17.5% MAC) for all weights up to and including 12,000 pounds (5,443 kg.) tapers to F.S. 388.31 (29.0% MAC) at 15,000 pounds (6,804 kg.) and remains at F.S. 388.31 (29.0% MAC) up to and including 19,500 pounds (8,845 kg.).

地面操作限制—前限制在重量 19,500 磅(8,845 公斤)(含)以下时与前飞行限制相同, 到 19,750 磅(8,958 公斤)时逐步变化为 F.S. 377.10 (15.0% MAC)。后限制在所有重量下都为 F.S. 391.92 (33.5% MAC)。

Ground Handling Limit - The forward limit is the same as the forward flight limit up to and including 19,500 pounds (8,845 kg.) and then tapers to F.S. 377.10 (15.0% MAC) at 19,750 pounds (8,958 kg.). The aft limit is F.S. 391.92 (33.5% MAC) at all weights.

最大重量/Maximum Weights:

停机坪/Ramp	19,750 磅/lbs.
起飞/Takeoff	19,500 磅/lbs.
着陆/Landing	17,000 磅/lbs.
零燃油/Zero fuel	15,000 磅/lbs.
可选的重量见注释 19。/ See NOTE 19 for optional weights.	

最小机组/Minimum Crew:

对于所有飞行, 2 人(正驾驶和副驾驶)
For all flights, 2 persons (pilot and copilot)

座位数/No. of Seats:

10 (2 名机组和 8 名乘客)/10 (2 crew and 8 passengers)
可选座椅布局和构型见注释 7。/See NOTE 7 for optional seating and configurations.

最大行李/Maximum Baggage:

客舱/Cabin	500 磅/lbs.	Sta. 380.1
尾舱/Tail	200 磅/lbs.	Sta. 496.6
鼻舱/Nose	75 磅/lbs.	Sta. 108.4

燃油量/Fuel Capacity (磅/lb.):

	<u>可用/Usable</u>	<u>力臂/Arm</u>
两个主油箱/ Two main tanks	2,848	392.3
机身油箱/Fuselage tank	3,859	428.5
不可用燃油数据见注释 1(a)。/See NOTE 1(a) for data on unusable fuel		

滑油量/Oil Capacity:

两个装在发动机上的滑油箱/ Two engine mounted tanks		
<u>总计/Total</u>	<u>可用/Usable</u>	<u>力臂/Arm</u>
2.25 加仑/飞机/gal. ea.	0.5 加仑/飞机/gal. ea.	459
不可用滑油数据见注释 1(a)。/See NOTE 1(a) for data on unusable oil		

最大运行高度/Maximum Operating Altitude:

51,000 英尺压力高度/51,000 ft. pressure altitude

其它运行限制/Other Operating Limitations:

见相关 FAA 批准的飞机飞行手册。
See appropriate FAA Approved airplane Flight Manual.

操纵面运动/Control Surface Movements:

水平安定面/Horizontal stabilizer	前缘向下/ L.E. Down 0.75° to 11.25°		
升降舵/Elevator	向上/Up	15°	向下/Down 15°
副翼/Aileron	向上/Up	18°	向下/Down 18°
副翼配平调整片	向上/Up	8°	向下/Down 8°
Aileron trim tab			
副翼连接的调整片	±15° at -18° 副翼偏转/aileron deflection		
Aileron geared tabs			
方向舵/Rudder	向右/Right	30°	向左/Left 30°

方向舵配平调整片 向右/Right 11° 向左/Left 11°
Rudder trim tab
机翼襟翼/Wing flap 向下/Down 0° to 40°
扰流板/Spoilers 向上/Up 0° to 40°
关于校装容差和指导, 见飞机维护手册或 LES FT-1206 或 LES-FT-1207。
See Airplane Maintenance Manual or LES FT-1206 or LES-FT-1207 for rigging tolerances or instructions.

基准/Datum: 机头前方 40.77 英寸处。机翼顶点位于 sta. 414.85 处。机身顶点位于 sta. 129.53 处。
40.77 in. forward of nose. Wing jack points are at sta. 414.85. Fuselage jack points are at sta. 129.53.

平均气动弦长/MAC: 80.09 英寸/in. (MAC 前缘位于 sta. 365.085 处。/L.E. of MAC at sta. 365.085.)

水平测量设施/Leveling Means:
关于水平测量指导见飞机服役手册或维护手册或 LES 1061。
See airplane Service Manual or Maintenance Manual or LES 1061 for leveling instructions.

设备/Equipment: 适用的适航规章（见审定基础）中规定的基本必需设备必须安装在审定的飞机上。
The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification.

Learjet 55 型所有系列飞机服役手册或维护手册都包括结构部件更换信息, 并保持更新自 FAA 批准的 Learjet Report 54/55-S47。
Learjet Service Manuals or Maintenance Manuals for all series of Model 55 include structural component replacement lives from FAA Approved Learjet Report 54/55-S47.

适合的序号/Serial Nos. Eligible: 001 至 126。/001 through 126.

IV. 注释/Notes

注释/NOTE 1: (a) 包含了包括在审定空重内的设备清单以及装载指南（必要时）的当前的重量和平衡报告必须在每架飞机进行初始适航审定时提供。空重和相应重心位置必须包括：
Current weight and balance report including list of equipment included in the certificated empty weight, and loading instructions when necessary, must be provided for each aircraft at the time of original certification. The empty weight and corresponding center of gravity locations must include:

不可用燃油/Unusable fuel	121.0 lb. at 384.4
(基于 6.7 磅每加仑。/based on 6.7 lb.per gal.)	
不可用滑油/Unusable Oil	16.6 lb. at 459.0
液压油/Hydraulic fluid	140 lb. at 507.6

(b) 飞机的装载必须保证重心一直位于规定限制内。
The airplane must be so loaded that the C.G. is within the specified limits at all times.

注释/NOTE 2: 在相关 FAA 批准的飞行手册、服务手册、维护手册或等效的生产图纸中规定的标牌必须被显示。/The placards specified in the appropriate FAA Approved Flight Manual or Service Manual or Maintenance Manual or equivalent production drawings must be displayed.

注释/NOTE 3: 所有更换的座椅（机组和乘客）即使符合 TSO C39, 仍必须演示其对 FAR 25.785 的符合性。/All replacement seats (crew and passenger), although they may comply with TSO C39 must also be demonstrated to comply with FAR 25.785.

注释/NOTE 4: 飞机飞行手册的限制部分包含了指示空速(IAS)的运行限制。空速仪表必须以适当的指示空速进行标记。/The limitations section of the Airplane Flight Manual contains indicated airspeed (IAS) operating limitations. Airspeed instrument will be marked with appropriate indicated airspeed.

注释/NOTE 5: (a)空/Empty

(b)商业煤油, JP-4 和 JP-5 燃油, 符合 AiResearch Manufacturing Co.的燃油规范 EMS 53111、EMS 53112、EMS 53113 或 EMS 53116。MIL-I-27686 防冰添加剂必须以不小于 0.060%或大于 0.15%（以容积计算）的浓度与飞机燃油进行混合, 但依据 ECR 2051 或 AAK 55-81-1 装有燃油加热器 55 型飞机除外。美国以外的其它国家供应的 JP-4 燃油可能不含防冰添加剂。见飞机飞行手册中的燃油程序。

Commercial kerosene, JP-4 and JP-5 fuel, conforming to AiResearch Manufacturing Co. Fuel Specification EMS 53111, EMS 53112, EMS 53113, or EMS 53116. MIL-I-27686 anti-icing additive must be blended into aircraft fuel in concentrations of not less than 0.060 or more than 0.15 percent by volume except on those Model 55 aircraft equipped with fuel heaters per ECR 2051. JP-4 fuel supplied in other countries may not contain the anti-icing additive. See Airplane Flight Manual for fuel procedures.

(c) 空/Empty

(d)符合普惠加拿大公司规范 CPW204 和服务通告 No. 24004 及后续修订版的商业 JP-5、JP-8、Jet A 和 Jet A-1 型燃油。见飞机飞行手册中的燃油程序。

Commercial JP-5, JP-8, Jet A, Jet A-1 type fuels, conforming to Pratt & Whitney Canada Specification CPW204 and Service Bulletin No. 24004 and later revisions. See Airplane Flight Manual for fuel procedures.

注释/NOTE 6: 空/Empty

注释/NOTE 7: 以下可选的座椅构型可获批准/The following optional seating configurations are eligible for approval:

最大乘坐人数: 13 (2 名飞行员, 10 名乘客, 1 名乘务员)

Maximum number of occupants: 13 (Two pilots, 10 passengers, 1 attendant)

关于已批准的座椅布局构型参见 Learjet 报告 No. ER-084-TUC。

Ref. Learjet Report No. ER-084-TUC for approved seating configurations.

注释/NOTE 8: 空/Empty

注释/NOTE 9: 空/Empty

注释/NOTE 10: 空/Empty

注释/NOTE 11: 空/Empty

注释/NOTE 12: 空/Empty

注释/NOTE 13: 空/Empty

注释/NOTE 14: 空/Empty

注释/NOTE 15: 空/Empty

注释/NOTE 16: 空/Empty

注释/NOTE 17: 空/Empty

注释/NOTE 18: 空/Empty

注释/NOTE 19: 按 ECR 2173 构型配置的 55 型起飞总重可达 20,500 磅。按 ECR 2554 构型配置或按 AAK 55-82-3 改装的 55 型起飞总重可达 21,000 磅。按 ECR 2431 构型配置或按 AAK 55-84-6 改装的 55 型起飞总重可达 21,500 磅。按 ECR 2432 构型配置或按 AAK 55-84-3 改装的 55 型着陆重量为 18,000 磅。对于此改装的运行限制参见飞机飞行手册。

Model 55 configured per ECR 2173 is eligible for a Takeoff Gross Weight of 20,500 pounds. Model 55 configured per ECR 2554 or modified per AAK 55-82-3 is eligible for a Takeoff Gross Weight of 21,000 pounds. Model 55 configured per ECR 2431 or modified per AAK 55-84-6 is eligible for Takeoff Gross Weight of 21,500 pounds. Model 55 configured per ECR 2432 or modified per AAK 55-84-3 is eligible for landing weight of 18,000 pounds. Refer to Airplane Flight Manual for operating limitations with this modification.

注释/NOTE 20: 对 55 和 60 型尾舱区域进行设备安装或其它改装, 必须与对应的 FAA 地区机构协调。/ Models 55, 55A, 55B, and 60 equipment installations or other modifications to the tailcone area must be coordinated with the controlling FAA Region.

注释/NOTE 21: 55 型由 ECR 2515 定义。/The Model 55 is defined by ECR 2515.

注释/NOTE 22: 对 55 和 60 型仪表板和中央控制台的改装, 必须与对应的 FAA 地区机构协调。/Models 55 and 60 instrument panel and center console modifications must be coordinated with the controlling FAA Region.

注释/NOTE 23: 空/Empty

注释/NOTE 24: 空/Empty

注释/NOTE 25: 空/Empty

注释/NOTE 26: 空/Empty

注释/NOTE 27: 空/Empty

注释/NOTE 28: 空/Empty

注释/NOTE 29: 空/Empty

注释/NOTE 30: 空/Empty

注释/NOTE 31: 空/Empty

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注释/NOTE 41: 空/Empty

注释/NOTE 42: 空/Empty

注释/NOTE 43: 空/Empty

注释/NOTE 44: 空/Empty

注释/NOTE 45: 空/Empty

注释/NOTE 46: 空/Empty

注释/NOTE 47: 下表所列的机型与高高度运行的专用条件有关。该专用条件包含对增压系统的要求, 以及对增压舱的损伤容限要求。因此, 对增压系统的任何更改或对增压舱的任何改装或修理必须依据专用条件中确定的要求进行批准。

The airplane models listed below are the subjects of Special Condition related to operation at high altitude. This special condition includes pressurization system requirements, as well as damage tolerance requirements on the pressure vessel. Therefore, any changes to the pressurization system or modifications or repairs to the pressure vessel must be approved in accordance with the requirements defined in the special condition.

该专用条件中关于损伤容限的要求以客舱高度时间历程（客舱高度时间历程是客舱泄漏率的函数）规定。对于 55 型飞机, 规定的客舱高度时间历程要求可通过增压舱开口到 2.0 平方英寸来满足（假设应急下降）。等效裂纹长度的确定取决于裂纹所处的特定部位、增压舱在此部位的构型和裂纹方向等。对于改装和/或修理的批准必须考虑该专用条件的要求以及如何将它们应用于进行改装或修理的特定部位和构型。最终的检查方案还必须考虑其它适用的结构准则。

The damage tolerance requirements in the special condition are specified in terms of cabin altitude time history, which is a function of the cabin leak rate. For models (see table below) the specified cabin altitude time history requirement can be met with a pressure vessel opening of (see table below), (assuming an emergency descent). The determination of an equivalent crack length will depend upon the particular location of the crack, the pressure vessel configuration in that location, and the direction of the crack, etc. The approval of modifications and/or repairs must take into account the requirements of the special condition and how they apply to the particular location and configuration being modified or repaired. The resulting inspection program must also consider other applicable structural criteria.

型别/Model (s)	高高度专用条件 /High Altitude Special Condition	增压舱开口/Pressure Vessel Opening (平方英寸/sq. in.)
55	25-99-CE-14 Par. D.1. (b)(1) & D.1. (b)(2)	2.0

注释/NOTE 48: 当按 Learjet 公司 STC ST00945WI, ST01050SE-D 改装后, Learjet 55 型满足制造单位关于缩小垂直间隔 (RVSM) 运行的批准要求。

The Learjet model 55 meet the requirements of manufactures group approval for operation in Reduced Vertical Separation Minimum (RVSM) airspace when modified by the Learjet Inc Supplemental Type Certificates ST00945WI, ST01050SE-D.

营运人负责从 FAA 直接获得关于 RVSM 的运行批准。/The operator is responsible for obtaining RVSM operational approval directly from the FAA.

第 3 部分/SECTION 3: Learjet 60

I. 总则/General

1. 衍生型/Variant or Model: Learjet 60
(Learjet 60XR (序号 60-294、60-307 及 60-319 之后),
见注释 49 / (S/N 60-294, 60-307 and 60-319 and on),
See NOTE 49)
2. 适航类别/Airworthiness Category: 运输类航空器/Transport category Aircraft
3. 型号合格证持有人/Type Certificate Holder: Learjet Inc.
One Learjet Way
Wichita, Kansas 67209-2942
4. FAA 批准日期/FAA Approved Date: 1993.01.15/ Jan.15, 1993
5. CAAC 批准日期/CAAC Approved Date: 2009.12.24./De c.24, 2009

II. 认可审定基础/Validation Certification Basis

CAAC 的认可审定基础由 FAA 的审定基础(详见 FAA 型号合格证数据单:编号 A10CE 中的 Learjet 60 型别部分的审定基础)和 CAAC 的如下附加技术条件组成:

The CAAC validation basis consists of the FAA certification basis (refer to the certification basis of model 60 in FAA Type Certificate Data Sheet No.A10CE) and the following CAAC additional technical conditions:

- (1) 按 CAAC 适航指令 CAD97-MULT-38 的要求, 安装快速存取记录器 (QAR);
Per CAAC Airworthiness Directive CAD97-MULT-38, the Quick Access Recorder (QAR) shall be installed.
- (2) 根据 CCCAR121.301(d), 高度测量单位应至少采用米制;
Per CCAR 121.301(d), the altimeter measure unit shall be indicated in meter at least.
- (3) 确定中国国标 3 号燃油 (GB6537-94) 的使用条件;
Operational condition for the P.R.C. JET fuel No.3 (GB 6537-94) shall be defined.
- (4) 标记要求/Placard Requirements:
根据 CCAR21.29(5): 机上所有对旅客进行的提示、警告和通知的文字标记和标牌; 机上所有向旅客或机外营救人员指示应急出口和门的位置以及开启方法的文字标记和标牌; 旅客可能使用的机上所有应急设备的操作、使用说明应当至少有中文表述;
Per CCAR 21.29 (5), all on-board placard and marking for awareness, warning, and note to the passenger; all on-board placard and marking for opening method and location indication of the emergency exit and door to passenger and outside rescuer; and all operational instructions for on-board emergency equipments possible operated by passengers shall be presented in Chinese at least.

III. 技术特征和运行限制 /Technical Characteristics and Operational Limitations

- 发动机/Engines: 两台普惠加拿大公司 PW305A (P/N 31B4067-01)发动机
Two Pratt & Whitney Canada PW305A (P/N 31B4067-01)
或/or
两台普惠加拿大公司 PW305A (P/N 31B4067-02)发动机(见注释 38)
Two P&W Canada PW305A (P/N 31B4067-02) (See NOTE 38)
或/or
两台普惠加拿大公司 PW305A (P/N 31B4067-04)发动机(见注释 46)
Two P&W Canada PW305A (P/N 31B4067-04) (See NOTE 46)

燃油/Fuel: 见注释 5(d)/See NOTE 5(d).

发动机限制/Engine Limits:

普惠加拿大公司 PW305A/Pratt & Whitney Canada PW305A

额定推力/Thrust ratings (lb.)

起飞(标准日), 海平面静态(5 分钟) 4600

Takeoff (standard day), static Sea level (5 min.)

最大连续, 海平面静态 4600

Maximum continuous, static Sea level

最大允许发动机转子转速/Maximum permissible engine rotor operating speeds

低压/Low pressure (r.p.m.) 10,820 (102% N₁)

高压/High pressure (r.p.m.) 27,469 (102% N₂)

102% 至/to 102.5% N₁ r.p.m.

限制为 20 秒/Limited to 20 seconds

102% 至/to 102.5% N₂ r.p.m.

限制为 20 秒/Limited to 20 seconds

最大允许级间涡轮燃气温度/Maximum permissible interstage turbine gas temperatures:

起飞/Takeoff 785°C

最大连续/Maximum continuous 785°C

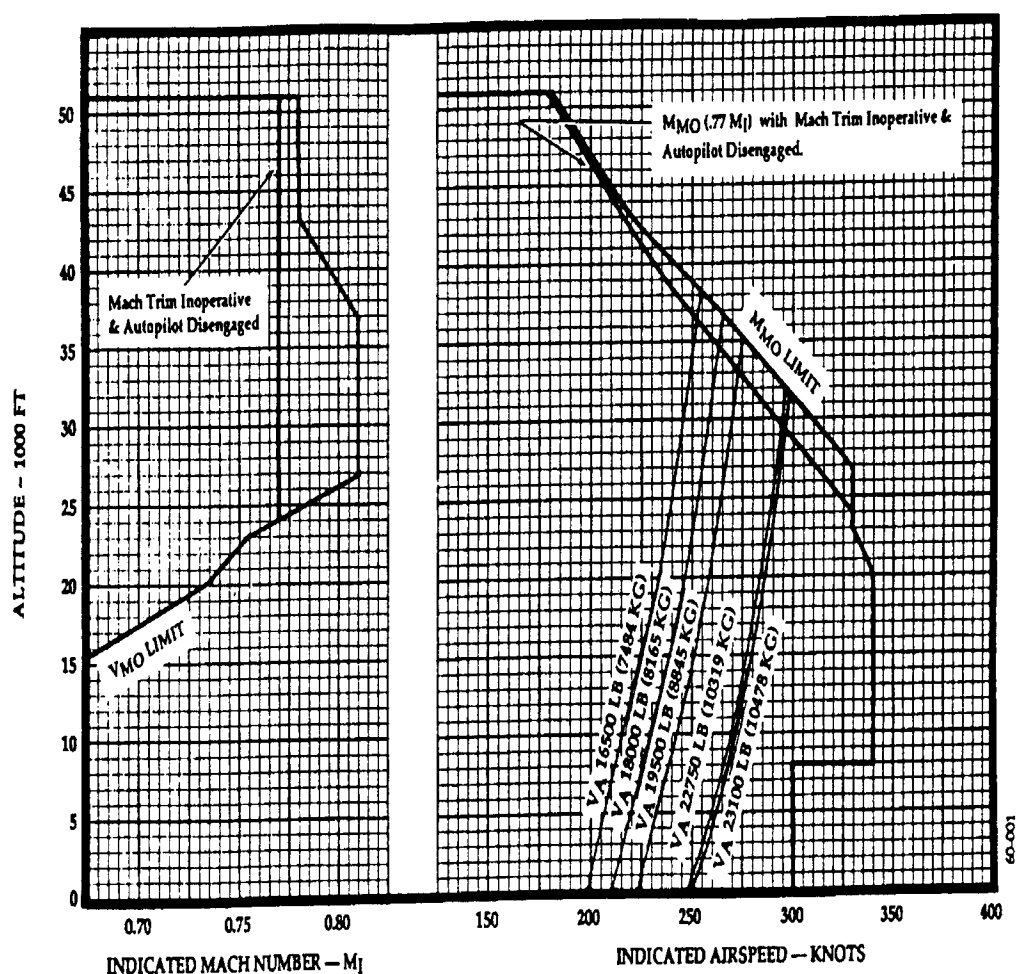
最大瞬态/Maximum transient (20 秒/sec.) 825°C

最大瞬态用于起动/ 950°C

Maximum transient for starting

空速限制/Airspeed Limits (IAS)(见注释 4/See NOTE 4):

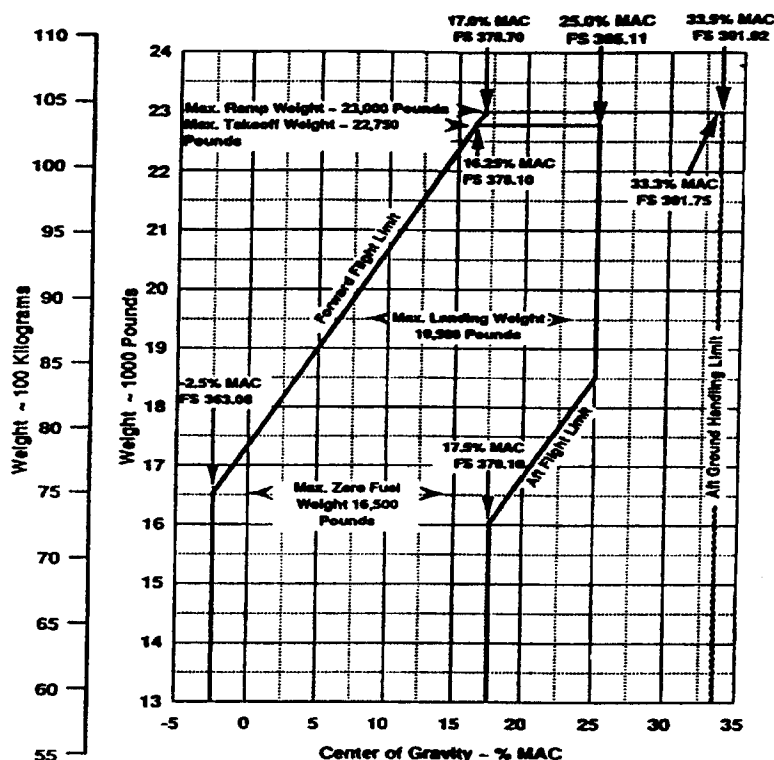
空速/马赫限制/AIRSPEED/MACH LIMITS



V_{FE}	襟翼/Flaps 8°	250 KIAS
	襟翼/Flaps 20°	200 KIAS
	襟翼/Flaps 40°	165 KIAS
V_{LO}	(起落架操作/Landing gear operating)	200 KIAS
V_{LE}	(起落架放下/Landing gear extended)	260 KIAS
V_{SB}	(扰流板伸出/Spoilers extended)	低于 V_{MO} 或 M_{MO} 的任何速度, 除非在襟翼伸出或自动驾驶接通状态下飞行中禁止伸出/Any speed below V_{MO} or M_{MO} , except extension is prohibited in flight with flaps extended or with autopilot engaged.
V_{MCA}	8° 襟翼/flap	120 KIAS
	20° 襟翼/flap	110 KIAS
V_{MCG}	(8° 和 20° 襟翼/8° and 20° flap)	
	Rudder Boost Off	116 KIAS
	Rudder Boost On	95 KIAS
	仅对于 Learjet 60 型/For Learjet Model 60 only:	
V_{MO}		264 KIAS

重心范围(起落架放下)/C.G. Range (Landing Gear Extended):

重心包线/Center of Gravity Envelope



前飞行限制—重量 16,500 磅(7484 公斤) (含) 以下为 F.S. 363.08 (-2.5% MAC), 到 22,750 磅(10,319 公斤)时逐步变化为 F.S. 378.10 (16.25% MAC)。

Forward Flight Limits -- F.S. 363.08 (-2.5% MAC) for all weights up to and including 16,500 pounds (7484 kg) and tapers to F.S. 378.10 (16.25% MAC) at 22,750 pounds (10,319 kg).

后飞行限制—重量 16,000 磅(7258 公斤) (含) 以下为 F.S. 379.10 (17.5% MAC), 到 18,500 磅(8392 公斤)时逐步变化为 F.S. 385.11 (25.0% MAC), 并且直至 22,750 磅 (10,319 公斤) (含) 时保持为 F.S. 385.11 (25.0% MAC)。

Aft Flight Limit -- F.S. 379.10 (17.5% MAC) for all weights up to and including 16,000 pounds (7258 kg), tapers to F.S. 385.11 (25.0% MAC) at 18,500 pounds (8392 kg), remains at F.S. 385.11 (25.0% MAC) up to and including 22,750 pounds (10,319 kg).

地面操作限制—前限制在重量 22,750 磅 (10,319 公斤) (含) 以下时与前飞行限制相同, 到 23,000 磅 (10,433 公斤)时逐步变化为 F.S. 378.70 (17.0% MAC)。后限制在重量 22,987 磅 (10,427 公斤) (含) 以下时为 F.S. 391.92 (33.5% MAC), 到 23,000 磅 (10,433 公斤)时逐步变化为 F.S. 391.75 (33.3% MAC)。

Ground Handling Limit -- The forward limit is the same as the forward flight limit up to and including 22,750 pounds (10,319 kg) and tapers to F.S. 378.70 (17.0% MAC) at 23,000 pounds (10,433 kg). The aft limit is F.S. 391.92 (33.5% MAC) for all weights up to and including 22,987 pounds (10,427 kg) and tapers to F.S. 391.75 (33.3% MAC) at 23,000 pounds (10,433 kg).

可选的重心范围见注释 39。/See NOTE 39 for Optional C.G. Range

最大重量/Maximum Weights:

停机坪/Ramp

标准/Standard

23,000 磅/lbs.

起飞/Takeoff 22,750 磅/lbs.
 着陆/Landing 19,500 磅/lbs.
 零燃油/Zero fuel 16,500 磅/lbs.
 可选的重量见注释 37 和 39。/See NOTES 37 and 39 for Optional Weights

最小机组/Minimum Crew:

对于所有飞行, 2 人(正驾驶和副驾驶)
 For all flights, 2 persons (pilot and copilot)

座位数/No. of Seats:

10 (2 名机组和 8 名乘客)/10 (2 crew and 8 passengers)
 可选构型见注释 7。/See NOTE 7 for optional configurations.

最大行李/Maximum Baggage:

	最大行李/Max Baggage	力臂/Arm
客舱/Cabin	260 磅/lbs.	367.0
尾舱/Tail	300 磅/lbs.	515.0

燃油量/Fuel Capacity (磅/lb.):

	可用/Usable	力臂/Arm
两个机翼油箱/Two wing tanks	2898	391.7
机身油箱/Fuselage tank	5012	427.1

不可用燃油数据见注释 1(a)。/See NOTE 1(a) for data on unusable fuel

滑油量/Oil Capacity:

每台发动机一个整体滑油箱/One integral tank per engine

总计/Total	可用/Usable	力臂/Arm
2.11 加仑/飞机发动机 gal. ea. engine	1.0 加仑/飞机发动机 gal. ea. engine	467.1

不可用滑油数据见注释 1(a)。/See NOTE 1(a) for data on unusable oil

最大运行高度/Maximum Operating Altitude:

51,000 英尺压力高度/51,000 ft. pressure altitude

其它运行限制/Other Operating Limitations:

见 FAA 批准的飞机飞行手册。/See FAA Approved airplane Flight Manual.

操纵面运动/Control Surface Movements:

水平安定面/Horizontal stabilizer		上限制/Upper Limit	
		前缘向下/L.E. Down:	1°6' to 1°21'
		下限制/Lower Limit	
		前缘向下/L.E. Down:	11°9' to 11° 25'
升降舵/Elevator	向上/Up	15°± 30'	向下/Down 16.5° ± 30'
副翼/Aileron	向上/Up	18° ± 1°	向下/Down 18° +1°, -2°
副翼配平调整片 Aileron trim tab	向上/Up	8° ± 1°	向下/Down 8° ± 1°
副翼平衡调整片 Aileron Balance Tabs	向上/Up	15° ± 2°	向下/Down 15° ± 2°
方向舵/Rudder	向右/Right	30° +2° -1°	向左/Left 30° +2° -1°
方向舵配平调整片 Rudder trim tab	向右/Right	20° ± 1°	向左/Left 20° ± 1°
机翼襟翼/Wing flap		向下/Down	0° to 40° +5° -0°

扰流板/Spoilers

第 1 部分卡位/1st Partial Detent	向上/Up	10° ± 3°
第 2 部分卡位/2nd Partial Detent	向上/Up	20° ± 3°
全伸出/Full Deploy	向上/Up	47° +0° -7°

关于校装容差和指导, 见维护手册或 LES-FT-1588 (主操纵面) 和 LES-FT-1589 (次操纵面)。/For rigging tolerances and instructions, see Maintenance Manual or LES-FT-1588 for primary controls, and LES-FT-1589 for secondary controls.

基准/Datum: 机头前方 12.77 英寸处。机翼顶点位于 sta. 414.832 处。机身顶点位于 sta. 101.5 处。
12.77 in. forward of nose. Wing jack points are at sta. 414.832. Fuselage jack point is at Sta. 101.5.

平均气动弦长/MAC:
80.09 英寸/in. (MAC 前缘位于 sta. 365.085 处。/L.E. of MAC at sta. 365.085.)

水平测量设施/Leveling Means:

关于水平测量指导见飞机服役手册或维护手册或 LES 1061。
See airplane Service Manual or Maintenance Manual or LES 1061 for leveling instructions.

设备/Equipment: 适用的适航规章 (见审定基础) 中规定的基本必需设备必须安装在审定的飞机上。
The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification.

Learjet 60 型所有系列飞机服役手册或维护手册都包括结构部件更换信息, 并保持更新自 FAA 批准的 Learjet Report 60-S47。
Learjet Service Manuals or Maintenance Manuals for all series of Model 60 include structural component replacement lives from FAA Approved Learjet Report 60-S47 respectively.

适合的序号/Serial Nos. Eligible:
001 及之后/001 and On

IV. 注释/Notes

注释/NOTE 1: (a) 包含了包括在审定空重内的设备清单以及装载指南 (必要时) 的当前的重量和平衡报告必须在每架飞机进行初始适航审定时提供。空重和相应重心位置必须包括:
Current weight and balance report including list of equipment included in the certificated empty weight, and loading instructions when necessary, must be provided for each aircraft at the time of original certification. The empty weight and corresponding center of gravity locations must include:

不可用燃油/Unusable fuel	32 lb. at 382.6
(基于 6.7 磅每加仑。/ based on 6.7 lb.per gal.)	
不可用滑油/Unusable Oil	17.8 lb. at 467.1
液压油/Hydraulic fluid	17.8 lb. at 467.1

(b) 飞机的装载必须保证重心一直位于规定限制内。
The airplane must be so loaded that the C.G. is within the specified limits at all times.

注释/NOTE 2: 在相关 FAA 批准的飞行手册 W1603、服务手册、维护手册或等效的生产图纸中规定的标牌必须被显示。/The placards specified in the appropriate FAA Approved Flight Manual

W1603 or Service Manual or Maintenance Manual or equivalent production drawings must be displayed.

注释/NOTE 3: 所有更换的座椅（机组和乘客）即使符合 TSO C39, 仍必须演示其对 FAR 25.785 的符合性。/All replacement seats (crew and passenger), although they may comply with TSO C39 must also be demonstrated to comply with FAR 25.785.

注释/NOTE 4: 飞机飞行手册的限制部分包含了指示空速(IAS)的运行限制。空速仪表必须以适当的指示空速进行标记。/The limitations section of the Airplane Flight Manual contains indicated airspeed (IAS) operating limitations. Airspeed instrument will be marked with appropriate indicated airspeed.

注释/NOTE 5: (a)空/Empty

(b)商业煤油, JP-4 和 JP-5 燃油, 符合 AiResearch Manufacturing Co.的燃油规范 EMS 53111、EMS 53112、EMS 53113 或 EMS 53116。MIL-I-27686 防冰添加剂必须以不小于 0.060%或大于 0.15%（以容积计算）的浓度与飞机燃油进行混合, 但依据 ECR 2051 或 AAK 55-81-1 装有燃油加温器 55 型飞机除外。美国以外的其它国家供应的 JP-4 燃油可能不含防冰添加剂。见飞机飞行手册中的燃油程序。

Commercial kerosene, JP-4 and JP-5 fuel, conforming to AiResearch Manufacturing Co. Fuel Specification EMS 53111, EMS 53112, EMS 53113, or EMS 53116. MIL-I-27686 anti-icing additive must be blended into aircraft fuel in concentrations of not less than 0.060 or more than 0.15 percent by volume except on those Model 55 aircraft equipped with fuel heaters per ECR 2051. JP-4 fuel supplied in other countries may not contain the anti-icing additive. See Airplane Flight Manual for fuel procedures.

(c) 空/Empty

(d)符合普惠加拿大公司规范 CPW204 和服务通告 No. 24004 及后续修订版的商业 JP-5、JP-8、Jet A 和 Jet A-1 型燃油, 以及符合 GB6537-94 的中国 RP-3 和中国 3 号燃油。见飞机飞行手册中的燃油程序。

Commercial JP-5, JP-8, Jet A, Jet A-1 type fuels, conforming to Pratt & Whitney Canada Specification CPW204 and Service Bulletin No. 24004 and later revisions; also Chinese RP-3 and Chinese No. 3 as per GB6537-94. See Airplane Flight Manual for fuel procedures.

注释/NOTE 6: 空/Empty

注释/NOTE 7: 以下可选的座椅构型可获批准/The following optional seating configurations are eligible for approval:

最大乘坐人数: 13 (2 名飞行员, 10 名乘客, 1 名乘务员)

Maximum number of occupants: 13 (two pilots, 10 passengers, 1 attendant)

关于已批准的座椅布局构型参见 Learjet 报告 No. ER-199、ER-210、ER-211、ER-212、ER-214、ER-239 和 ER-250。/Ref. Learjet Report No. ER-199, ER-210, ER-211, ER-212, ER-214, ER-239 and ER-250 for approved seating configurations.

LJ60XR (序号 60-294、60-307、60-319 及之后。/S/N 60-294, 60-307, 60-319 and on):

最大乘坐人数: 11 (2 名飞行员, 9 名乘客)

Maximum number of occupants: 11 (2 pilots, 9 passengers)

关于已批准的座椅布局构型参见 Learjet 报告 No. 60-D1944 and 60-D2067。

Ref. Learjet Report No. 60-D1944 and 60-D2067 for approved seating configurations.

注释/NOTE 8: 空/Empty

注释/NOTE 9: 空/Empty

注释/NOTE 10: 空/Empty

注释/NOTE 11: 空/Empty

注释/NOTE 12: 空/Empty

注释/NOTE 13: 出口专用条件/Special Conditions for export:

依据 Learjet ECR 4035 改装后, Learjet 60 型可以获准出口中国。

Learjet Model 60 are eligible for export to China when modified per Learjet ECR4035.

Learjet 60 型飞机进口中国的特别要求: 进口中国的 Learjet 60 型飞机必须符合 Learjet DRAWING 6087080 and AFMS W1417 的要求。/The Learjet 60 aircraft imported to China must be comformed to LEARJET DRAWING 6087080 and AFMS W1417.

注释/NOTE 14: 空/Empty

注释/NOTE 15: 空/Empty

注释/NOTE 16: 空/Empty

注释/NOTE 17: 空/Empty

注释/NOTE 18: 空/Empty

注释/NOTE 19: 空/Empty

注释/NOTE 20: 对 55 和 60 型尾舱区域进行设备安装或其它改装, 必须与对应的 FAA 地区机构协调。

Models 55, 55A, 55B, and 60 equipment installations or other modifications to the tailcone area must be coordinated with the controlling FAA Region.

注释/NOTE 21: 空/Empty

注释/NOTE 22: 对 55 和 60 型仪表板和中央控制台的改装, 必须与对应的 FAA 地区机构协调。/Models 55 and 60 instrument panel and center console modifications must be coordinated with the controlling FAA Region.

注释/NOTE 23: 空/Empty

注释/NOTE 24: 空/Empty

注释/NOTE 25: 空/Empty

注释/NOTE 26: 空/Empty

注释/NOTE 27: 空/Empty

注释/NOTE 28: 空/Empty

注释/NOTE 29: 空/Empty

注释/NOTE 30: 空/Empty

注释/NOTE 31: 空/Empty

注释/NOTE 32: 空/Empty

注释/NOTE 33: 空/Empty

注释/NOTE 34: 空/Empty

注释/NOTE 35: 空/Empty

注释/NOTE 36: 60 型由 ECR 2940 定义。/The Model 60 is defined by ECR 2940.

注释/NOTE 37: 如 Learjet Drawing No. 6088001 所定义, 60 型可选的起飞总重可达 23,100 磅。扩大的重心范围 (ECR 3845), 见注释 39, 还包括增加的停机坪和起飞总重。
The Model 60 is eligible for optional Takeoff Gross Weight of 23,100 lbs. as defined by Learjet Drawing No. 6088001. The Expanded C.G. (ECR 3845), see NOTE 39, also includes an increased Ramp and Takeoff Gross Weight.

注释/NOTE 38: 如 Learjet 公司 ECRs 3504 和 3719 定义, 这些发动机的批准序号在-026 到-065 之间; , 序号-066 到-128 之间的发动机如 Learjet 公司 ECR 3926 定义; 序号-002 到-025 之间的发动机执行 Learjet SB 60-78-1。
These engines are eligible at Serial Number -026 through -065 as defined by Learjet Inc. ECRs 3504 and 3719; Serial Number -066 through -128 as defined by Learjet Inc. ECR 3926; Serial Number -002 through -025 incorporating Learjet SB 60-78-1.

注释/NOTE 39: 如 Learjet 公司 ECR 3845 定义, 60 型可扩大重心包线并可达到可选的起飞总重 23,500 磅。/Model 60 is eligible for Expanded C.G. Envelope and optional Takeoff Gross Weight of 23,500 Lbs. as defined by Learjet Inc. ECR 3845.

注释/NOTE 40: 空/Empty

注释/NOTE 41: 空/Empty

注释/NOTE 42: 空/Empty

注释/NOTE 43: 空/Empty

注释/NOTE 44: 空/Empty

注释/NOTE 45: 空/Empty

注释/NOTE 46: 如 Learjet 公司 ECR 4126 定义, 这些发动机可装在序号 60-129 及之后的飞机上。序号 60-002 到 60-128 之间的飞机允许依据 Learjet 公司服务通告 60-76-2 同时更换两个 EEC。
These engines are eligible at aircraft serial number 60-129 and on as defined by Learjet Inc. ECR 4126. Aircraft serial numbers 60-002 through 60-128 are eligible when both EECs are replaced per Learjet Inc. Service Bulletin 60-76-2.

注释/NOTE 47: 下表所列的机型与高高度运行的专用条件有关。该专用条件包含对增压系统的要求, 以及对增压舱的损伤容限要求。因此, 对增压系统的任何更改或对增压舱的任何改装或修理必须依据专用条件中确定的要求进行批准。
The airplane models listed below are the subjects of Special Condition related to operation at high altitude. This special condition includes pressurization system requirements, as well as damage tolerance requirements on the pressure vessel. Therefore, any changes to the pressurization system or modifications or repairs to the pressure vessel must be approved in accordance with the requirements defined in the special condition.

该专用条件中关于损伤容限的要求以客舱高度时间历程（客舱高度时间历程是客舱泄漏率的函数）规定。对于 60 型飞机，规定的客舱高度时间历程要求可通过增压舱开口到 1.2 平方英寸来满足（假设应急下降）。等效裂纹长度的确定取决于裂纹所处的特定部位、增压舱在此部位的构型和裂纹方向等。对于改装和/或修理的批准必须考虑该专用条件的要求以及如何将它们应用于进行改装或修理的特定部位和构型。最终的检查方案还必须考虑其它适用的结构准则。

The damage tolerance requirements in the special condition are specified in terms of cabin altitude time history, which is a function of the cabin leak rate. For models (see table below) the specified cabin altitude time history requirement can be met with a pressure vessel opening of (see table below), (assuming an emergency descent). The determination of an equivalent crack length will depend upon the particular location of the crack, the pressure vessel configuration in that location, and the direction of the crack, etc. The approval of modifications and/or repairs must take into account the requirements of the special condition and how they apply to the particular location and configuration being modified or repaired. The resulting inspection program must also consider other applicable structural criteria.

型别/Model (s)	高高度专用条件 /High Altitude Special Condition	增压舱开口/Pressure Vessel Opening (平方英寸/sq. in.)
60	25-99-CE-14 Par. D.1. (b)(1) & D.1.(b)(2)	1.2

注释/NOTE 48: 当按 Learjet 公司以下服务通告改装后，Learjet 60 型满足制造单位关于缩小垂直间隔（RVSM）运行的批准要求。

The Learjet model 60 meet the requirements of manufactures group approval for operation in Reduced Vertical Separation Minimum (RVSM) airspace when modified by the following Learjet Inc Service Bulletins:

型别/Model 60	服务通告/Service Bulletin: SB 60-34-6 (有效性/Effective: 60-002 至/through 60-113) 序号 60-114 及之后的标准飞机满足要求/Standard aircraft 60-114 & ON meet the requirements
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营运人负责从 FAA 直接获得关于 RVSM 的运行批准。/The operator is responsible for obtaining RVSM operational approval directly from the FAA.

注释/NOTE 49: 60 型飞机的 LJ60XR 构型包括航电系统升级和内饰升级。/The LJ60XR configuration of Model 60 aircraft is comprised of an upgraded avionics package and upgraded interior.

LJ60XR 的航电系统升级由以下 STC 或 Modsums 定义:

The LJ60XR avionics package is defined by the following STCs or Modsums:

ST01402WI-D	(仅序号 60-294 / S/N 60-294 only)
ST01424WI-D	(仅序号 60-294 / S/N 60-294 only)
ST00646WI-D	(仅序号 60-294 / S/N 60-294 only)
060T000001	(序号 60-307、60-319 及之后 / S/N 60-307, 60-319 and on)
060T000256	(序号 60-307、60-319 及之后 / S/N 60-307, 60-319 and on)
060T000415	(序号 60-307、60-319 及之后 / S/N 60-307, 60-319 and on)
060T000451	(序号 60-307、60-319 及之后 / S/N 60-307, 60-319 and on)

LJ60XR 内饰包含由以下 STC 或 Modsums 所定义的任一个批准的座椅布局构型:

The LJ60XR interior incorporates one of the following approved seating configurations defined by the following STC or Modsums:

ST01422WI-D	(Floor Plan A,B,C,D: S/N 60-294 and 60-307 only)
ST01521WI-D	(Floor Plan F: 仅序号 60-363 / S/N 60-363 only)
060T000076	Floor Plan A

060T000077	Floor Plan B
060T000078	Floor Plan C
060T000079	Floor Plan D
060T001145	Floor Plan F
060T001619	Floor Plan H

以上所列 LJ60XR 座椅布局构型的升级版由以下 STC 或 Modsums 定义:

Upgraded versions of the above listed LJ60XR seating configurations are defined by the following STC or Modsums:

ST01510WI-D	(仅序号 60-358 / S/N 60-358 only)
060T001296	Floor Plan A (60-359 及之后/60-359 and on)
060T001297	Floor Plan B (60-359 及之后/60-359 and on)
060T001298	Floor Plan C (60-359 及之后/60-359 and on)
060T001299	Floor Plan D (60-359 及之后/60-359 and on)