ENR1.4
空中交通服务空域分类和说明
ATS airspace classification and description

ENR1.4.1 空中交通服务空域分类

1. 划设类别

依据航空器飞行规则和性能要求、空域环境、空管服务内容等要素，将空域划分为 A、B、C、D、E、G、W 7 类，其中，A、B、C、D、E 类为管制空域，G、W 类为非管制空域。具体如下：

1.1 A 类空域

1.1.1 划设地域及范围

通常为标准气压高度 6000 米（含）至标准气压高度 20000 米（含）。

1.1.2 服务内容

为所有飞行提供空中交通管制服务，并配备间隔。

1.1.3 飞行要求

a.通常仅允许仪表飞行；

b.航空器和空中交通管理部门之间必须保持持续双向无线电通信；

c.航空器必须安装二次雷达应答机（同等性能的监视设备）；

d.飞行计划经过审批，航空器进入前须获得空中交通管理部门许可；

e.航空器驾驶员应具备仪表飞行能力及相应资质。

ENR1.4.1 ATS airspace classification

1. Airspace Class

Based on factors such as aircraft flight rules and performance requirements, airspace environment, ATC services, the airspace is divided into seven classes, including A, B, C, D, E,G,W. Among which, class A, B, C,D and E are controlled airspace, class G and W are uncontrolled airspace. Details are as follows:

1.1 Class A Airspace

1.1.1 Designated area and range

Generally, that airspace from QNE 6 000m (inclusive) to QNE 20 000m(inclusive).

1.1.2 Services provided

All flights are provided with ATC services and are separated from each other .

1.1.3 Flight requirements

a. Normally IFR only;

b. Must maintain continuous two-way radio communications between the aircraft and the ATC units;

c. The aircraft must be equipped with SSR transponder(or equivalent surveillance equipment);

d. The flight plan must be approved, and clearance from the ATC units must be obtained before entering;

e. The pilot shall have IFR flight capability and relevant

qualifications.

1.2 B 类空域

1.2 Class B Airspace

1.2.1 划设地域及范围

1.2.1 Designated area and range

划设在民用运输机场上空。

The airspace designated above transport airports.

1.2.1.1 民用三跑道（含）以上机场，通常划设半径 20 千米、40 千米、60 千米的三环阶梯结构，高度分别为跑道道面—机场标高以上 900 米（含）、机场标高以上 900 米—机场标高以上 1800 米（含）、机场标高以上 1800 米—标准气压高度 6000 米。

1.2.1.1 For transport airports with three runways (inclusive) or more, three-tiered structure is usually established with radius of 20km, 40km, and 60km, altitudes respectively from runway surface to 900m(inclusive) above the airport elevation, from 900m above the airport elevation to 1 800m (inclusive) above the airport elevation , from 1 800m above the airport elevation to QNE 6 000m.

1.2.1.2 民用双跑道机场，通常划设半径 15 千米、30 千米的双环阶梯结构，高度分别为跑道道面—机场标高以上 600 米（含）、机场标高以上 600 米—机场标高以上 3600 米（含），顶层最高至 A 类空域下限。

1.2.1.2 For transport airports with two runways, two-tiered structure is usually established with radius of 15km and 30km, altitudes respectively from runway surface to 600m (inclusive) above the airport elevation,from 600m above the airport elevation to 3 600m (inclusive) above the airport elevation , maximum to the lower limit of Class A airspace.

1.2.1.3 民用单跑道机场，通常划设半径 12 千米、跑道道面—机场标高以上 600 米（含）的单环结构。

1.2.1.3 For transport airports with one runway, one-tiered structure is usually established with radius of 12km, altitude from runway surface to 600m (inclusive) above the airport elevation.

1.2.2 服务内容

1.2.2 Services provided

为所有飞行提供空中交通管制服务，并配备间隔。

All flights are provided with ATC services and are separated from each other.

1.2.3 飞行要求

1.2.3 Flight requirements

a.允许仪表和目视飞行；

b.航空器和空中交通管理部门之间必须保持持续双向无线电通信；

c.航空器必须安装二次雷达应答机（同等性能的监视设备）；

d.飞行计划经过审批，航空器进入前须获得空中交通管理部门许可；

e.航空器驾驶员应具备仪表或目视飞行能力及相应资质。

a. IFR and VFR flights are permitted;

b. Must maintain continuous two-way radio communications between the aircraft and the ATC units;

c. The aircraft must be equipped with SSR transponder (or equivalent surveillance equipment);

d. The flight plan must be approved, and clearance from the ATC units must be obtained before entering;

e. The pilot shall have IFR or VFR flights capability and relevant qualifications.

1.3 C 类空域

1.3 Class C Airspace

1.3.1 划设地域及范围

划设在建有塔台的通用航空机场上空，通常为半径 5 千米、跑道道面—机场标高以上 600 米（含）的单环结构。

1.3.1 Designated area and range

The airspace designated above general aviation airports with tower, one-tiered structure is usually established with radius of 5km, altitude from runway surface to 600m (inclusive) above the airport elevation.

1.3.2 服务内容

为所有飞行提供空中交通管制服务。为仪表和仪表、仪表和目视飞行之间配备间隔；为目视和目视飞行之间提供交通信息，并根据要求提供交通避让建议。

1.3.2 Services provided

All flights are provided with ATC services.Separation is provided for IFR/IFR flights and for IFR/VFR flights; traffic information is provided for VFR/VFR flights, and traffic avoidance advice is provided upon request.

1.3.3 飞行要求

a.允许仪表和目视飞行；

b.平均海平面高度 3000 米以下，目视飞行指示空速不大于 450 千米/小时；

c.航空器和空中交通管理部门之间必须保持持续双向无线电通信；

d.航空器必须安装二次雷达应答机或其他可被监视的设备；

1.3.3 Flight requirements

a. IFR and VFR flights are permitted;

b. Below 3 000m MSL, IAS should not exceed 450 km/h for VFR flights;

c. Must maintain continuous two-way radio communications between the aircraft and the ATC units;

d. The aircraft must be equipped with SSR transponder or other surveillance equipment;

e.飞行计划经过审批，航空器进入前须获得空中交通管理部门许可；

f.航空器驾驶员应具备仪表或目视飞行能力及相应资质。

e. The flight plan must be approved, and clearance from the ATC units must be obtained before entering;

f. The pilot shall have IFR or VFR flights capability and relevant qualifications.

1.4 D 或 E 类空域

1.4 Class D or E Airspace

1.4.1 划设地域及范围

1.4.1 Designated area and range

a.标准气压高度高于 20000 米为 D 类空域；

b. A、B、C、G 类空域以外，可根据运行需求和安全要求选择划设为 D 或 E 类空域。

a. Above QNE 20 000m is Class D airspace;

b. Outside of class A, B, C and G airspace, it can be designated as Class D or E airspace based on operation and safety requirements.

1.4.2 服务内容

1.4.2 Services provided

1.4.2.1 D 类空域：为所有飞行提供空中交通管制服务。为仪表和仪表飞行之间配备间隔，为仪表飞行提供关于目视飞行的交通信息，并根据要求提供交通避让建议；为目视飞行提供关于仪表和目视飞行的交通信息，并根据要求提供交通避让建议。

1.4.2.1 Class D airspace: All flights are provided with ATC services. Separation is provided for IFR/IFR flights, traffic information about VFR flights is provided for IFR flights, and traffic avoidance advice is provided upon request; traffic information about IFR and VFR flights is provided for VFR flights, and traffic avoidance advice is provided upon request.

1.4.2.2 E 类空域：仅为仪表飞行提供空中交通管制服务。为仪表和仪表飞行之间配备间隔，为仪表飞行尽可能提供关于目视飞行的交通信息；为目视飞行尽可能提供关于仪表和目视飞行的交通信息。

1.4.2.2 Class E airspace: ATC services for IFR flights only. Separation is provided for IFR/IFR flights, traffic information about VFR flights is provided for IFR flights as much as possible; traffic information about IFR and VFR flights is provided for VFR flights as much as possible.

1.4.3 共性飞行要求

1.4.3 Common flight requirements

a.允许仪表和目视飞行；

b.平均海平面高度 3000 米以下时，指示空速不大于

a. IFR and VFR flights are permitted;

b. Below 3 000m MSL, IAS should not exceed 450

450 千米/小时；

c.航空器在平均海平面高度 3000 米以上飞行必须安装二次雷达应答机（同等性能的监视设备），平均海平面高度低于 3000 米安装其他可被监视的设备；

d.必须报备飞行计划；

e.航空器驾驶员应具备仪表或目视飞行能力及相应资质。

km/h;

c. If flying above 3000m MSL, the aircraft must be equipped with SSR transponder(or equivalent surveillance equipment), if flying below 3000m MSL, the aircraft must be equipped with other surveillance equipment;

d. Flight plan must be filed and submitted;

e. The pilot shall have IFR or VFR flights capability and relevant qualifications.

1.4.4 特殊飞行要求

1.4.4.1 D 类空域：仪表、目视飞行的航空器进入前均须获得空中交通管理部门许可，并保持持续双向无线电通信。

1.4.4.2 E 类空域：a.仪表飞行的航空器进入前须获得空中交通管理部门许可，并保持持续双向无线电通信；

b.目视飞行的航空器不需要空中交通管理部门许可，但进入前必须报告，并在规定通讯频率上保持守听。

1.4.4 Special flight requirements

1.4.4.1 Class D airspace: IFR and VFR flights must obtain clearance from the ATC units before entering, and maintain continuous two-way radio communications.

1.4.4.2 Class E airspace: a. IFR flights must obtain clearance from the ATC units before entering, and maintain continuous two-way radio communications;

b. VFR flights do not need obtain clearance from the ATC units, but must report before entering, and remain on the specified communication frequency.

1.5 G 类空域

1.5.1 划设地域及范围

a. B、C 类空域以外真高 300 米以下空域（W 类空域除外）；

b.平均海平面高度低于 6000 米、对民航公共运输飞行无影响的空域。

1.5 Class G Airspace

1.5.1 Designated area and range

a. The airspace outside of class B and C airspace(class W airspace excluded) and below 300m AGL;

b. Airspace below 6 000m MSL that does not affect civil aviation transport flights.

1.5.2 服务内容

仅提供飞行信息服务，不提供空中交通管制服务。

1.5.2 Services provided

Flight information services only, no ATC services pro-

vided.

1.5.3 飞行要求

a.允许仪表和目视飞行;

b.平均海平面高度 3000 米以下时，指示空速不大于 450 千米/小时;

c.仪表飞行的航空器和空中交通管理部门之间必须保持持续双向无线电通信，目视飞行在规定通讯频率上保持守听;

d.航空器必须安装或携带可被监视的设备;

e.必须报备飞行计划;

f.航空器驾驶员应具备仪表或目视飞行能力及相应资质。

1.5.3 Flight requirements

a. IFR and VFR flights are permitted;

b. Below 3 000m MSL , IAS should not exceed 450 km/h;

c. Must maintain continuous two-way radio communications between the aircraft and the ATC units for IFR flights, while VFR flights shall remain on the specified communication frequency;

d. The aircraft must be equipped with or carry surveillance equipment;

e. Flight plan must be filed and submitted;

f. The pilot shall have IFR or VFR flights capability and relevant qualifications.

1.6 W 类空域

1.6 Class W Airspace

1.6.1 划设地域及范围

G 类空域内真高 120 米以下的部分空域。

1.6.1 Designated area and range

Part of the class G airspace below 120m AGL.

1.6.2 飞行要求

a.微型、轻型、小型无人驾驶航空器飞行;

b.飞行过程中应当广播式自动发送识别信息;

c.小型无人驾驶航空器操控员取得操控员执照。

1.6.2 Flight requirements

a. Micro, light, and small unmanned aircraft flights;

b. Identification information shall be automatically broadcasted during the flight;

c. Small unmanned aircraft remote pilots must obtain relevant licenses.

2 有关要求

2.1 经空中交通管理部门特别批准，航空器可按照目视飞行规则在A类空域飞行,以及超过限制速度在C、D、E、G 类空域飞行。

2 Related Requirements

2.1 With special approval from the ATC units, aircraft can fly under VFR in class A airspace, and fly exceed speed limits in class C, D, E and G airspace.

2.2 难以满足飞行要求时，航空用户可申请划设隔离空域并对外公布。

2.2 If it is difficult to meet the flight requirements, airspace users can apply for the establishment of isolated airspace and publish that information.

2.3 B、C 类空域范围可根据实际情况进行调整，可描述为不规则的多边形。

2.3 The range of class B and C airspace can be adjusted according to actual conditions, and can be described as irregular polygons.

2.4 A、B、C、D、E、G 类空域明确的飞行要求适用有人驾驶航空器，无人驾驶航空器进入按照《无人驾驶航空器飞行管理暂行条例》明确的要求执行。

2.4 The flight requirements of class A, B, C, D, E and G airspace are applicable to manned aircraft. Unmanned aircraft entering shall follow the requirements specified in the *"Interim Regulation on the Administration of the Flight of Unmanned Aircraft"*.

2.5 各类空域目视飞行气象条件：平均海平面高度 3000 米以上，能见度不小于 8 千米、距云水平距离不小于 1500 米、垂直距离不小于 300 米；当平均海平面高度 900 米或真高 300 米两者取较高值至平均海平面高度 3000 米时，能见度不小于 5 千米、距云水平距离不小于 1500 米、垂直距离不小于 300 米；当平均海平面高度 900 米以下或真高 300 米以下两者取较高值时，能见度不小于 5 千米、云外飞行。

2.5 VFR flights meteorological conditions for all classes of airspace: Above 3 000m MSL, VIS shall not be less than 8 000m, horizontal distance from clouds shall not be less than 1 500m, vertical distance shall not be less than 300m; When from 900m MSL or 300m AGL (choose the higher of two) to 3 000m MSL, VIS shall not be less than 5 000m, horizontal distance from clouds shall not be less than 1 500m, vertical distance shall not be less than 300m; When below 900m MSL or 300m AGL (choose the higher of two), VIS shall not be less than 5 000m, fly outside of clouds.

国家空域基础分类方法表 **Table of National Airspace Basic Classification Method**

空域种类 Class of Air-space	飞行类别 Type of flight	提供的服务 Services Provided	速度限制 Speed Limit	通信要求 Communi-cation Re-quirements	ATC 许可 ATC Clea-rance	监视设备 Surveillance Equipment
A	仪表 IFR	ATC 服务,配备间隔 ATC Services, separation is provided	不适用 Not applicable	持续双向 Continuous two-way	是 Yes	二次雷达应答机(同等性能的监视设备) SSR transponder (or equivalent surveillance equipment)
B	仪表 IFR	ATC 服务,配备间隔 ATC Services, separation is provided	不适用 Not applicable	持续双向 Continuous two-way	是 Yes	二次雷达应答机(同等性能的监视设备) SSR transponder (or equivalent surveillance equipment)
	目视 VFR	ATC 服务,配备间隔 ATC Services, separation is provided	不适用 Not applicable	持续双向 Continuous two-way	是 Yes	二次雷达应答机(同等性能的监视设备) SSR transponder (or equivalent surveillance equipment)
C	仪表 IFR	ATC 服务,为仪表和仪表、仪表和目视飞行之间配备间隔 ATC services, separation is	不适用 Not applicable	持续双向 Continuous two-way	是 Yes	二次雷达应答机或可被监视的设备 SSR transponder or other surveillance equipment

		provided for IFR/IFR, IFR/VFR flights				
	目视 VFR	ATC 服务,为目视和目视飞行之间提供交通信息，根据要求提供交通避让建议 ATC services, traffic information is provided for VFR/VFR flights,traffic avoidance advice is provided upon request.	3000 米 MSL 以下，IAS 不大于 450 千米/小时 Below 3 000m MSL, IAS≤450km/h	持续双向 Continuous two-way	是 Yes	二次雷达应答机或可被监视的设备 SSR transponder or other surveillance equipment
D	仪表 IFR	ATC 服务,为仪表和仪表飞行之间配备间隔，提供关于目视飞行的交通信息，根据要求提供交通避让建议 ATC services, separation is provided for IFR/IFR flights,provides traffic information about VFR flights, traffic avoidance advice is provided upon request	3000 米 MSL 以下，IAS 不大于 450 千米/小时 Below 3 000m MSL, IAS≤450km/h	持续双向 Continuous two-way	是 Yes	3000 米 MSL 以上安装二次雷达应答机(同等性能的监视设备)；3000 米 MSL 以下安装可被监视的设备 Equipped with SSR transponder (or equivalent surveillance equipment) above 3 000m MSL; equipped with surveillance equipment below 3 000m MSL
	目视 VFR	ATC 服务,提供关于仪表和目视飞行的交通信息，根据要求提供交通避让建议 ATC Services, provides	3000 米 MSL 以下，IAS 不大于 450 千米/小时 Below 3 000m MSL,	持续双向 Continuous two-way	是 Yes	3000 米 MSL 以上安装二次雷达应答机(同等性能的监视设备)；3000 米 MSL 以下安装可被监视的设备

		traffic information about IFR and VFR flights,traffic avoidance advice is provided upon request	IAS≤450km/h			Equipped with SSR transponder (or equivalent surveillance equipment) above 3 000m MSL; equipped with surveillance equipment below 3 000m MSL
E	仪表 IFR	ATC 服务,为仪表和仪表飞行之间配备间隔，尽可能提供关于目视飞行的交通信息 ATC services, separation is provided for IFR/IFR flights, provides traffic information about VFR flights as much as possible	3000 米 MSL 以下，IAS 不大于 450 千米/小时 Below 3 000m MSL, IAS≤450km/h	持续双向 Continuous two-way	是 Yes	3000 米 MSL 以上安装二次雷达应答机(同等性能的监视设备)；3000 米 MSL 以下安装可被监视的设备 Equipped with SSR transponder (or equivalent surveillance equipment) above 3 000m MSL; equipped with surveillance equipment below 3 000m MSL
	目视 VFR	尽可能提供关于仪表和目视飞行的交通信息 Provides traffic information about IFR and VFR flights as much as possible	3000 米 MSL 以下，IAS 不大于 450 千米/小时 Below 3 000m MSL, IAS≤450km/h	保持守听 Remain frequency	否，进入报告 No, report before en-	3000 米 MSL 以上安装二次雷达应答机(同等性能的监视设备)；3000 米 MSL 以下安装可被监视的设备 Equipped with SSR transponder (or equivalent surveillance equipment) above 3 000m MSL;

					tering	equipped with surveil-lance equipment below 3 000m MSL
G	仪表 IFR	飞行信息服务 Flight Information Services	3000 米 MSL 以下，IAS 不大于 450 千米/小时 Below 3 000m MSL, IAS≤450km/h	持续双向 Continuous two-way	否 No	安装或携带可被监视的设备 Equipped with or carry surveillance equipment
	目视 VFR	飞行信息服务 Flight Information Services	3000 米 MSL 以下，IAS 不大于 450 千米/小时 Below 3 000m MSL, IAS≤450km/h	保持守听 Remain frequency	否 No	安装或携带可被监视的设备 Equipped with or carry surveillance equipment
W		Nill	机型设计速度 Design Speed of aircraft	Nill	否 No	自动发送识别信息 Automatically broadcast Identification Information
注：当过渡高（高度）低于 3000 米 MSL 时，应当采用飞行高度层 3000 米代替 3000 米 MSL。 Note: When TH/TA is below 3 000m MSL, flight level 3 000m shall be used.						

空域分类示意图
Schematic Diagram of Airspace Classification