

ability to change the aircraft's center of gravity with respect to the wing. Flight control of the aircraft depends on the wing's ability to flexibly deform rather than the use of control surfaces.

Winglet or tip fin means an out-of-plane surface extending from a lifting surface. The surface may or may not have control surfaces.

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EDITORIAL NOTE: For FEDERAL REGISTER citations affecting §1.1, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

§ 1.2 Abbreviations and symbols.

In Subchapters A through K of this chapter:

AGL means above ground level.
ALS means approach light system.
ASR means airport surveillance radar.
ATC means air traffic control.
CAS means calibrated airspeed.
CAT II means Category II.
CONSOL or *CONSOLAN* means a kind of low or medium frequency long range navigational aid.
DH means decision height.
DME means distance measuring equipment compatible with TACAN.
EAS means equivalent airspeed.
EFVS means enhanced flight vision system.
FAA means Federal Aviation Administration.
FM means fan marker.
GS means glide slope.
HIRL means high-intensity runway light system.
IAS means indicated airspeed.
ICAO means International Civil Aviation Organization.
IFR means instrument flight rules.
ILS means instrument landing system.
IM means ILS inner marker.
INT means intersection.
LDA means localizer-type directional aid.
LFR means low-frequency radio range.
LMM means compass locator at middle marker.
LOC means ILS localizer.
LOM means compass locator at outer marker.
M means mach number.

MAA means maximum authorized IFR altitude.

MALS means medium intensity approach light system.

MALSRL means medium intensity approach light system with runway alignment indicator lights.

MCA means minimum crossing altitude.

MDA means minimum descent altitude.

MEA means minimum en route IFR altitude.

MM means ILS middle marker.

MOCA means minimum obstruction clearance altitude.

MRA means minimum reception altitude.

MSL means mean sea level.

NDB(ADF) means nondirectional beacon (automatic direction finder).

NOPT means no procedure turn required.

OEI means one engine inoperative.

OM means ILS outer marker.

PAR means precision approach radar.

RAIL means runway alignment indicator light system.

RBN means radio beacon.

RCLM means runway centerline marking.

RCLS means runway centerline light system.

REIL means runway end identification lights.

'*RR*' means low or medium frequency radio range station.

RVR means runway visual range as measured in the touchdown zone area.

SALS means short approach light system.

SSALS means simplified short approach light system.

SSALSRL means simplified short approach light system with runway alignment indicator lights.

TACAN means ultra-high frequency tactical air navigational aid.

TAS means true airspeed.

TCAS means a traffic alert and collision avoidance system.

TDZL means touchdown zone lights.

TVOR means very high frequency terminal omnirange station.

V_A means design maneuvering speed.

V_B means design speed for maximum gust intensity.

V_C means design cruising speed.

V_D means design diving speed.

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V_{DF}/M_{DF} means demonstrated flight diving speed.

V_{EF} means the speed at which the critical engine is assumed to fail during takeoff.

V_F means design flap speed.

V_{FC}/M_{FC} means maximum speed for stability characteristics.

V_{FE} means maximum flap extended speed.

V_{FTO} means final takeoff speed.

V_H means maximum speed in level flight with maximum continuous power.

V_{LE} means maximum landing gear extended speed.

V_{LO} means maximum landing gear operating speed.

V_{LOF} means lift-off speed.

V_{MC} means minimum control speed with the critical engine inoperative.

V_{MO}/M_{MO} means maximum operating limit speed.

V_{MU} means minimum unstick speed.

V_{NE} means never-exceed speed.

V_{NO} means maximum structural cruising speed.

V_R means rotation speed.

V_{REF} means reference landing speed.

V_S means the stalling speed or the minimum steady flight speed at which the airplane is controllable.

V_{S0} means the stalling speed or the minimum steady flight speed in the landing configuration.

V_{S1} means the stalling speed or the minimum steady flight speed obtained in a specific configuration.

V_{SR} means reference stall speed.

V_{SRO} means reference stall speed in the landing configuration.

V_{SR1} means reference stall speed in a specific configuration.

V_{SW} means speed at which onset of natural or artificial stall warning occurs.

V_{TOSS} means takeoff safety speed for Category A rotorcraft.

V_X means speed for best angle of climb.

V_Y means speed for best rate of climb.

V_I means the maximum speed in the takeoff at which the pilot must take

the first action (e.g., apply brakes, reduce thrust, deploy speed brakes) to stop the airplane within the accelerate-stop distance. V_I also means the minimum speed in the takeoff, following a failure of the critical engine at V_{EF} , at which the pilot can continue the takeoff and achieve the required height above the takeoff surface within the takeoff distance.

V_2 means takeoff safety speed.

V_{2min} means minimum takeoff safety speed.

VFR means visual flight rules.

VHF means very high frequency.

VOR means very high frequency omnirange station.

$VORTAC$ means collocated VOR and TACAN.

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EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 1.2, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

§ 1.3 Rules of construction.

(a) In Subchapters A through K of this chapter, unless the context requires otherwise:

(1) Words importing the singular include the plural;

(2) Words importing the plural include the singular; and

(3) Words importing the masculine gender include the feminine.

(b) In Subchapters A through K of this chapter, the word:

(1) *Shall* is used in an imperative sense;

(2) *May* is used in a permissive sense to state authority or permission to do the act prescribed, and the words “no person may * * *” or “a person may not * * *” mean that no person is required, authorized, or permitted to do the act prescribed; and

(3) *Includes* means “includes but is not limited to”.

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