How to Decode METAR, TAF, and pilot reports.

A METAR is a codified observation message indicating an airfield weather conditions observed at a given time.
Such a message is established every hour.

A SPECI message is identical to a METAR but is established punctually instead of regularly. It is a special observation message highlighting any significant change since the last METAR or SPECI was issued.

A TAF is a terminal forcast. It is issued every few hours, and is updated if necessary sooner.

Aviation Routine Weather Report (METAR)

Example:

METAR	KRNO	210056Z	05012KT	10SM	-SN	BKN050	02/M08	A3016	RMK AO2 SLP228	T00221083
1	2	3	4	5	6	7	8	9	10	11

1. Message Type
   - METAR: routine weather report
   - SPECI: special weather report, triggered by a weather change
   - AUTO will be first item for ASOS/AWOS generated reports
2. ICAO Identifier (4-letter)
3. Issuance Time DDHHMMz (UTC)
   - COR (CCD in Canada) if correction to observation
4. Wind
   - First 3 digits: True Wind direction or average if variable (VRB).

     Note: If the wind direction varies 60° or more, the direction will be indicated with a V (e.g. 180V250)
   - Next 2 digits: Mean speed and units
     - KT=knots, KMH=kilometers/hour, MPS=meters/second
   - G (gust) as needed – 2 or 3 digit maximum speed
   - Calm will be indicated by 00000KT
   - Example: 18012G22KT 150V240
5. Horizontal Visibility
   - Prevailing Visibility (PV)
     - Statue miles (SM) and fractions (US & Canada only) **or**,
     - 4 digit minimum visibility in meters, **and**,
     - Lowest value and direction, as required (shown as a remark)

   - Runway Visual Range (RVR)
     - R: Runway Designator, L/R/C as needed, "/"
     - P/M: Plus/Minus (US only)

- 4 digit value (feet/meters)
- V (variability) with tendency U/D/N (up/down/no change)
- Example: R18R/1200FTV/U

6. Present Weather (Constructed sequentially):
    - Intensity
    - Descriptor
    - Precipitation (Dominant type is listed first if more than one type reported)
    - Obscuration
    - Other

Qualifier				Weather Phenomena					
Intensity or Proximity		Descriptor		Precipitation		Obscuration		Other	
–	Light	BC	Patches	DZ	Drizzle	BR	Mist (1)	DS	Duststorm
		BL	Blowing (2)	GR	Hail (3)	DU	Widespread Dust		
No qualifier	Moderate	DR	Low Drifting (4)	GS	Small Hail and/or snow pellets (5)	FG	Fog (6)	FC	Funnel Clouds
		FZ	Freezing	IC	Ice Crystals	FU	Smoke	PO	Dust/Sand Whirls
+	Heavy	MI	Shallow	PL	Ice Pellets	HZ	Haze	SQ	Squall(s)
		PR	Partial	RA	Rain	SA	Sand		
VC	Vicinity (7)	SH	Shower(s)	SG	Snow Grains	VA	Volcanic Ash	SS	Sandstorm
		TS	Thunderstorm	SN	Snow				
				UP	Unknown Precipitation				

(1) Visibility at least 1000m (5/8SM) but not more than 9600m (6SM)
(2) 6 feet or more above the ground
(3) Hailstone diameter 5mm or greater
(4) Less than 6 feet above the ground
(5) Hailstone diameter less than 5mm
(6) Visibility less than 1000m (5/8SM)
(7) Within 8KM (5SM) of the aerodrome but not at the aerodrome

7. Sky Cover
    - Cloud Description
        - Amount in eights (octas)

          SKC=Sky Clear (clear below 12,000 for ASOS/AWOS)
          NSC=No significant clouds
          FEW=Few (1/8 to 2/8 sky cover)
          SCT=Scattered (3/8 to 4/8 sky cover)
          BKN=Broken (5/8 to 7/8 sky cover)
          OVC=Overcast (8/8 sky cover)

8. Terperature/Dewpoint (whole °C) (preceded by M=minus)
    - First 2 digits = temperature

- Second 2 digits = dewpoint

9. Altimeter setting (QNH) and indicator (A=InHg, Q=hPa)
10. Supplementary Information
    - RE = Recent weather followed by weather codes
    - WS = Windshear, followed by:
        - TKOF/LDG (takeoff/landing)
        - RWY (2 digits runway identifier and designator L/R/C)
    - RMK = Remark
        - SLP = Sea Level Pressure
        - T00221083 (Expanded temp/dewpoint)
          1st, 5th digits: 0=plus, 1=minus
          2nd-4th digits: temp (decimal missing) (02.2)
          6th-8th digits: dewpoint (decimal missing) (-8.3)
11. Trend Forecast (2 hours from time of observation) (Not used in US)
    - PROB and 2 digits (30 or 40) = probability 30% or 40%
    - Used to indicate the probability of occurance of alternate element(s) or temporary fluctuations
    - Change Indicator
        - BECMG = Becoming (used where changes are expected to reach or pass through specified values
        - TEMPO = Temporary (fluctuations of less than one hour duration
        - NOSIG = No significant change

    - Forecast Wind (same as item 4)
    - Forecast Visibility (as item 5) (9999 indicates 10Kilometers vis or greater)
    - Forecast Weather (as item 6)
    - Forecast Cloud (as item 7)

EIGHT FIGURE GROUP

An eight digit telegraphic code on runway conditions for some European airports may be included at the end of hourly METAR messages:

Eight Figure Group	
1st two digits	Runway designator
3rd digit	Runway deposits
4th digit	Extent of runway contamination
5th and 6th digits	Depth of deposit
7th and 8th digits	Friction coefficient or braking action

The first two digits correspond to the runway designator. For parallel runways LEFT is indicated by the designator only (18L would be displayed as 18) and RIGHT has 50 added (18R would be displayed as 68). When all runways are affected the figure group 88 will be used. If 99 appears as the first two digits the information is a repetition of the last message because no new message has been received in time for transmission.

Runway Deposits		Extent of Runway Contamination		Depth of Deposit	
0	Clear & Dry	1	<10% contaminated (covered)	00	Less than 1mm
1	Damp	2	11% to 25% contaminated (covered)	01-90	Measurement in mm
2	Wet or water particles			92	10cm
3	Rime or frost covered (normally > 1mm)	5	26%-50% contaminated (covered)	93	15cm
4	Dry Snow	9	51%-100% contaminated (covered)	94	20cm
5	Wet Snow			95	25cm
6	Slush	/	Not reported (runway clearance in progress)	96	30cm
7	Ice			97	35cm
8	Compacted or rolled snow			98	40cm or more
9	Frozen ruts or ridges			99	Runway not operational due to snow, slush, ice, large drifts or runway clearance, depth not reported
/	Not reported (runway clearance in progress)			//	Not operationally significant or not measurable

Note: the quoted depth is the mean of a number of reading or if operationally significant the greatest depth measured.

Friction Coefficient or Braking Action (7th and 8th digits)	
28	Friction coefficient 0.28
35	Friction coefficient 0.35
91	Braking action poor
92	Braking action medium to poor
93	Braking action medium
94	Braking action medium to good
95	Braking action good
99	Figures unreliable
//	Braking action not reported or runway not operations or airport closed.

Note: Where braking action is assessed at a number of points along the runway the mean value will be transmitted or if operationally significant the lowest value.

If measuring equipment does not allow measurement of friction with satisfactory reliability (such as contaminated by wet snow, slush or loose snow) the figure 99 will be used.

Automated Surface/Weather Observation System (ASOS/AWOS)

The Automated Surface Observation System (ASOS) and Automated Weather Observation System (AWOS) observe and report altimeter setting, wind direction and speed, temperature, dewpoint, visibility and ceiling/cloud height. Pilots may use automated weather observation from ASOS/AWOS, provided the observations from ASOS/AWOS, provided the observation includes all necessary weather parameters, and that the system is installed, operated and maintained according to applicable FAA standards.

Pilots may obtain the ASOS/AWOS reports through written, radio or telephone methods. Refer to METAR section for ASOS/AWOS report format.

ASOS/AWOS observations may not be used as an authorized weather observation if either the visibility or the wind is reported as missing.

ASOS/AWOS observation are unusable for the purpose of initiating or conducting an instrument approach if the altimeter setting is reported as missing unless an approved alternate source is noted on the applicable approach chart.

TAF

Example:

TAF	KRNO	202320Z	210024	04010G20KT	P6SM	-SN	SCT060
1	2	3	4	5	6	7	8

FM0300	05008KT	P6SM	SCT060
9			

1. Type of report (TAF)
2. ICAO Identifier (4 letter)
3. Issuance time (DDHHMM**Z**) UTC. May precede ICAO identifier at some airports.
4. Day (DD). Hour begins (1st two digits XX) Hour ends (2nd two digits).
5. Wind. First 3 digits true wind direction or average if variable. If the wind varies 60° or more, the direction will be indicated with a V (e.g. 120V190). Next two digits Mean speed and units (KT=knots, KMH=kilometers per hour, or MPS=meters per second). G=gust as needed (2 or 3 digits). Calm will be indicated by 00000XXX (XXX will be replaced by the appropriate units).
6. Horizontal visibility.
    a. Prevailing visibility (PV)
        - Statute Miles (SM) and fractions (US only), **or**
        - 4 digit minimum visibility in meters, **and**
        - Lowest value and direction, as required
    b. Runway Visual Range (RVR)
        - R=Runway Designator, L/R/C as needed, "/"
        - P/M=Plus/Minus (US Only)
        - 4 digit value (feet/meters)
        - V(variability) with tendency U/D/N (up/down/no change)
7. Present Weather (constructed sequentially):
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					pellets (5)				
		FZ	Freezing	IC	Ice Crystals	FU	Smoke	PO	Dust/Sand Whirls
+	Heavy	MI	Shallow	PL	Ice Pellets	HZ	Haze	SQ	Squall(s)
		PR	Partial	RA	Rain	SA	Sand		
VC	Vicinity (7)	SH	Shower(s)	SG	Snow Grains	VA	Volcanic Ash	SS	Sandstorm
		TS	Thunderstorm	SN	Snow				
				UP	Unknown Precipitation				

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(14)Within 8KM (5SM) of the aerodrome but not at the aerodrome

8. Sky Cover
   - Cloud Description
     - Amount in eights (octas)
       SKC=Sky Clear (clear below 12,000 for ASOS/AWOS)
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       FEW=Few (1/8 to 2/8 sky cover)
       SCT=Scattered (3/8 to 4/8 sky cover)
       BKN=Broken (5/8 to 7/8 sky cover)
       OVC=Overcast (8/8 sky cover)
     - Height: 100s of feet (30m)
     - Type CB (Cumulonimbus) or TCU (Towering cumulus) only.
   - CAVOK – Ceiling and visibility OK (not used in US). Replaces visibility/RVR, present weather, and clouds if:
     - Visibility is 10KM or greater
     - No CB and no cloud below 1500M (5000ft) or below highest minimum sector altitude whichever is greater, and
     - No precipitation, thunderstorm, sandstorm, duststorm, shallow fog, or low drifting dust/sand/snow.
   - Vertical visibility (when sky obscured) – VV100's of feet (30m) (VV /// means vertical visibility unavailable)

Optional groups (Forecast icing, Turbulence, & Temperature)

T= Temperature group indicator

Temperature: two digits (if below 0°, will be preceded by "M"),"/"

Expected time temperature will be reached: 2 digits, Z.

Icing Layer(s): 6 digits for each icing group (6WXXXY).

6: first digit of the icing group is always a 6.

Icing type: Second digit:

	Icing Intensity	**Location**
0	None	None
1	Light Icing	

2	Light Icing	In cloud
3	Light Icing	In precipitation
4	Moderate	
5	Moderate	In cloud
6	Moderate	In precipitation
7	Severe	
8	Severe	In cloud
9	Severe	In precipitation

Icing layer's base: next 3 digits. (direct reading in 100s of ft/30s meters)

Thickness of icing layer: last digit:

	Thickness of Layer
0	Up to top of cloud
1	300m/1000'
2	600m/2000'
3	900m/2000'
4	1200m/4000'
5	1500m/5000'
6	1800m/6000'
7	2100m/7000'
8	2400m/8000'
9	2700m/9000'

Turbulence Layer(s): 6 Digits (5WXXXY)

5: first digit of the turbulence group is always a 6.

Turbulence type: Second digit:

	Intensity	**Weather Condition**	**Frequency**
0	None		
1	Light		
2	Moderate	Clear	Occasional
3	Moderate	Clear	Frequent
4	Moderate	Cloud	Occasional
5	Moderate	Cloud	Frequent
6	Severe	Clear	Occasional
7	Severe	Clear	Frequent
8	Severe	Cloud	Occasional
9	Severe	Cloud	Frequent

Turbulence layer's base: next 3 digits. (direct reading in 100s of ft/30s meters)

Thickness of turbulence layer: last digit:

	Thickness of Layer
0	Up to top of cloud
1	300m/1000'
2	600m/2000'
3	900m/2000'
4	1200m/4000'

5	1500m/5000’
6	1800m/6000’
7	2100m/7000’
8	2400m/8000’
9	2700m/9000’

SIGNIFICANT CHANGES IN FORECAST

1. Probability groups(s)
   - PROB and 2 digits (30 or 40).
   - Probability 30% or 40% used to indicate the probability of occurrence of alternate element(s) or temporary fluctuations. (US will only use 40%). May also be listed as TEMPO by some non US weather services.
   - TIME (beginning 2 digits, ending 2 digits)
   - Forecast weather phenomena.
2. Forecast Change
   - Indicators
     - BCMG=Becoming (used when changes are expected to reach or pass through specified values)
     - FM = From and 2 digit time
     - TO = To and 2 digit time
     - TEMPO = Temporary fluctuation
   - Forecast weather phenomena.

METAR /TAF Abbreviations / Cloud Types

A	Hail
ABM	Abeam
ABV	Above
AC	Altocumulus
ACCAS	Altocumulus castellanus
ACCUM	Altocumulate
ACLD	Above clouds
ACSL	Standing lenticular altocumulus
ACTV	Active
ACYC	Anticyclonic
ADDN	Addition
ADRNDCK	Adirondack
ADVCTN	Advection
ADVY	Advisory
AFDK	After Dark
AFT	After

AMOS	Automatic Meteorological observing system
AMS	Air mass
ANLYS	Analysis
AO1	Automated observation with no precip discriminator (rain/snow)
AO2	Automated observation with precip discriminator (rain/snow)
AOA	At or above
AOB	At or below
AP	Anomalous propagation
APCH	Approach
APRNT	Apparent
AS	Altostratus
ASOS	Automated surface observing system
ATLC	Atlantic

AFTN	Afternoon
AGL	Above Ground Level
AGN	Again
AHD	Ahead
AIREP	Air Report
AIRMET	Airmen's Meteorological Info
ALF	Aloft
ALG	Along
ALGHNY	Allegheny
ALQDS	All quadrants
ALSTG	Altimeter setting
ALTA	Alberta
ALUTN	Alleutian
AMD	Amended forecast
AMDT	Amendment

ATTM	At this time
AURBO	Aurora Borealis
AUTOB	Automatic weather reporting system
AWOS	Automatic weather observing system
B	Beginning of precipitation (time in minutes (wx reports only)
BACLIN	Baroclinic prognosis
BATROP	Barotropic or barotropic prognosis
BC	British Columbia
BCFG	Fog patches
BCKG	Backing
BCM(G)	Become (becoming)
BD	Blowing dust (wx reports only)
BFDK	Before dark
BINOVC	Breaks in overcast

BKN	Broken
BLDUP	Build up
BLKHLS	Black Hills
BLO	Below
BN	Blowing sand (wx reports only)
BNDRY	Boundary
BOVC	Base of overcast
BRAF	Braking action fair
BRAG	Braking action good
BRAN	Braking action nil
BRAP	Braking action poor
BRF	Brief
BRKSHR	Berkshire
BS	Blowing snow (wx reports only)
BTWN	Between
BY	Blowing spray (wx reports only)
CA	Clear above (PIREP only)
CAN	Canada
CARIB	Caribbean
CASCDS	Cascades
CAVOK	Ceiling and visibility OK
CAVU	Ceiling and visibility unlimited
CB	Cumulonimbus
CBMAM	Cumulonimbus mammatus
CC	Cirrocumulus
CCSL	Standing lenticular cirrocumulus
CDFNT	Cold Front
CFP	Cold front passage

CLD	Cloud
CLR	Clear
CAS	Clear and smooth
CNL	Cancel
CNDN	Canadian
CNTRL	Central
CNVG	Converge
CNVTV	Convective
CONT-DVD	Continental Divide
CONTRAILS	Condensation trails
CS	Cirrostratus
CST	Coast
CTGY	Category
CTSKLS	Catskills
CU	Cumulus
CUF	Cumuliform
CUFRA	Cumulus fractus
CYC	Cyclonic
CYCLGN	Cyclogenesis
D	Dust (wx reports only)
DABRK	Daybreak
DALGT	Daylight
DCAVU	Clear or scattered cloud and vis greater than 10, remainder or report missing (wx reports only)
DCR	Decreased
DIAM	Diameter
DKTS	Dakotas

CHC	Chance
CHSPK	Chesapeake
CIG	Ceiling

DMSH	Diminish
DNS	Dense
DNSLP	Downslope

DNSTRM	Downstream
DP	Deep
DPNG	Deepening
DPTH	Depth
DRFT	Drift
DRZL	Drizzle
DSIPT	Dissipate
DSNT	Distant
DTRT	Deteriorate
DRG	During
DWNDFTS	Downdrafts
DWPNT	Dew point
E	Ending of precipitation (time in minutes)(wx reports only)
E	Equatorial (air mass)
E	Estimated (wx reports only)
ELNGT	Elongate
EMBDD	Embedded
ENRT	Enroute
ENTR	Entire
ERY	Early
EVE	Evening
EXCP	Except
EXPC	Expect
EXTRM	Extreme
F	Fog (wx reports only)
FA	Area Forecast
FAH	Farenheit
FAX	Facsimile
FIBI	Filed but impracticable to transmit
FINO	Wx report will not be filed for transmission

FLG	Falling
FLRY	Flurry
FNT	Front
FNTGNS	Frontogenesis
FNTLYS	Frontolysis
FORNN	Forenoon
FRMG	Forming
FROPA	Frontal passage
FRST	Frost
FRZ	Freeze
FRZLVL	Freezing level
FRZN	Frozen
FZRANO	Freezing rain sensor not operating
FT	Terminal Forecast
G	Gusts reaching (knots)(wx reports only)
GF	Ground fog (wx reports only)
GFDEP	Ground fog estimated (feet) deep
GICG	Glaze icing
GLFALSK	Gulf of Alaska
GLFCAL	Gulf of California
CLFMEX	Gulf of Mexico
GLFSTLAWR	Gulf of St. Lawrence
GNDFG	Ground Fog
GRAD	Gradient
GRTLKS	Great Lakes
GSTS	Gusts
GSTY	Gusty
H	Haze (wx reports only)
HCVIS	High clouds visible
HDEP	Haze layer estimated (feet) deep
HDSVLY	Hudson Valley

HI	High
HLSTO	Hailstones
HLYR	Haze layer aloft
HURCN	Hurricane
HVY	Heavy

LABRDR	Labrador
LFT	Lift
LGT	Light
LIFR	Low IFR (wx reports only)
LK	Lake

IC	Ice crystal
ICG	Icing
ICGIC	Icing in clouds
ICGICIP	Icing in clouds and precipitation
ICGIP	Icing in precipitation
IF	Ice fog
IFR	Instrument flight rules
INCR	Increase
INDC	Indicate
INDEF	Indefinite
INLD	Inland
INSTBY	Instability
INTR	Interior
INTR-MTRGN	Inter-mountain region
INTS	Intense
INTST	Intensity
INVRN	Inversion
IOVC	In overcast
IP	Ice pellets (wx reports only)
IR	Ice on runway
JTSTR	Jetstream
K	Smoke
KDEP	Smoke layer estimated (feet) deep
KLYR	Smoke layer aloft
KOCTY	Smoke over city
L	Drizzle (wx reports only)

LSR	Loose snow on runway
LST	Local Standard Time
LTGCA	Lightning cloud to air
LTGCC	Lightning cloud to cloud
LTGCCCG	Lightning cloud to cloud, cloud to ground
LTGCG	Lightning cloud to ground
LTGCW	Lightning cloud to water
LTGIC	Lightning in clouds
LTLCG	Little change
LTNG	Lightning
LYR	Layer or layered or layers
M	Measured ceiling (wx reports only)
M	Missing (wx reports only)
MAN	Manitoba
MDT	Moderate
METAR	Scheduled aviation observation
MEX	Mexico
MHKVLY	Mohawk Valley
MIDN	Midnight
MIFG	Patches of shallow fog not deeper than 2 meters
MLTLVL	Melting level
MNLD	Mainland
MOGR	Moderate or greater
MOV	Move
MRGL	Marginal
MRNG	Morning

MRTM	Maritime
MSTLY	Mostly
MTN	Mountain
MVFR	Marginal VFR
NB	New Brunswick
NEW ENG	New England
NFLD	Newfoundland
NGT	Night
NOSPL	No special observations taken (wx reports only)
NS	Nimbostratus
NS	Nova Scotia

PGTSND	Puget Sound
PIBAL	Pilot balloon observation
PK WND	Peak wind (wx report only)
PNHDL	Panhandle
PNO	Rain gauge not operating
PPINA	Radar weather report not available or omitted
PPINE	Radar weather report no echoes observed
PPINO	Radar weather report equipment inoperative due to breakdown
PPIOK	Radar weather report equipment operation resumed

NVA	Negative vorticity advection
OBS	Observation
OBSC	Obscure
OCFNT	Occluded front
OCLD	Occlude
OCLN	Occlusion
OFP	Occluded frontal passage
OFSHR	Offshore
OMTNS	Over mountains
ONSHR	On shore
ONT	Ontario
ORGPHC	Orographic
OTAS	On top and smooth
OTLK	Outlook
OVC	Overcast
OVR	Over
PAC	Pacific
PCPN	Precipitation
PDW	Priority Delayed Weather
PEN	Peninsula

PPIOM	Radar weather report equipment inoperative due to maintenance
PRBLTY	Probability
PRESFR	Pressure falling rapidly
PRESRR	Pressure rising rapidly
PRJMP	Pressure jump (wx reports only)
PROG	Prognosis or prognostic
PSR	Packed snow on runway
PTCHY	Patchy
PTLY	Partly
PVA	Positive vorticity advection
PWINO	Precipitaion identifier information not available (wx reports only)
Q	Squall (wx reports only)
QSTNRY	Quasistationary
QUE	Quebec
R	Rain (wx reports only)
RADAT	Radiosonde observation data
RAOB	Radiosonde observation
RCKY	Rocky Mountains
RDG	Ridge

RGD	Ragged
RHINO	Radar echo height information not available
RHINO	Radar range height indicator not operating on scan
RIOGD	Rio Grande
RNFL	Rainfall
ROBEPS	Radar operating below prescribed standard
RPD	Rapid
RSG	Rising
RUF	Rough
RVRNO	Runway visual range missing
RW	Rain shower (wx reports only)
S	Snow (wx reports only)
SASK	Saskatchewan
SAWRN	Supplementary Aviation Weather Reporting System
SC	Stratocumulus
SCSL	Stratocumulus standing lenticular
SCT	Scattered
SELS	Severe local storms
SFERICS	Atmospherics

TDWR	Terminal Doppler Weather Radar
TEMP	Temperature
THDR	Thunder
THRU	Through
THRUT	Throughout
THSD	Thousand
TIL	Until
TMW	Tomorrow
TNGT	Tonight
TOP	Cloud top
TOVC	Top of overcast
TPG	Topping
TROF	Trough
TROP	Tropopause
TRPCL	Tropical
TRRN	Terrain
TSHWR	Thundershower
TSNO	Lightning sensor not available
TSTM	Thunderstorm

SG	Snow grains (wx reports only)
SHFT	Shift (wx reports only)
SHLW	Shallow
SHWR	Shower
SIERNEV	Sierra Nevada
SIR	Snow and ice on runway
SPECI	Unscheduled aviation observation
SLF	Sea level pressure
SLPNO	Sea level pressure not available
SNINCR	Snow increasing rapidly
TCU	Towering cumulus
TDA	Today

TURB	Turbulence
TURBC	Turbulence
TWD	Toward
TWR	Tower
TWRG	Towering
TYPH	Typhoon
U	Intensity unknown (wx reports only)
UA	Routine PIREP
UDDF	Up and down drafts
UNSTBL	Unstable
UNSTDY	Unsteady
UPR	Upper

UTC	Universal coordinated time
UUA	Urgent PIREP
V	Variable (wx reports only)
VCSH	Showers in vicinity
VCTY	Vicinity
VFR	Visual flight rules
VLY	Valley
VRBL	Variable
VSBY	Visibility
WDLY	Widely
WEA	Weather
WFP	Warm front passage
WK	Weak
WKN	Weaken
WL	Will

WND	Wind
WRM	Warm
WRMFNT	Warm front
WRNG	Warning
WSHFT	Wind shift
WW	Severe weather forecast
WX	Weather
X	Obscured sky condition
XCP	Except
YDA	Yesterday
Z	UTC
ZRNO	Freezing rain information not available (wx reports only)

AIRMETs

Hazardous weather advisories of **moderate** intensity will be issued as AIRMETs. AIRMETs are issued when the following conditions are expected to cover an area of at least 3000 square miles:

Moderate icing.

Moderate turbulence.

Sustained surface winds of 30 knots or more.

Ceilings less than 1,000 ft. and/or visibility less than 3 miles affecting 50% of an area at one time.

Extensive mountain obscuration.

SIGMET's

Hazardous weather advisories of **severe** intensity will be issued as SIGMETs. SIGMETs are reported as convective or nonconvective.

Convective SIGMETs report only thunderstorms and related phenomena (tornadoes, heavy precipitation, hail and high surface winds.

Nonconvective SIGMETs are issued when the following conditions occur or are expected to cover an area of at least 3,000 square miles:

- Severe or extreme turbulence or clear air turbulence (CAT) not associated with thunderstorms.
- Severe icing not associated with thunderstorms.
- Widespread duststorms, sandstorms, or volcanic ash lowering surface or inflight visibilities to below three miles.
- Volcanic eruption.

Volcanic eruption SIGMET's are identified by an alphanumeric designator which consists of an alphabetic identifier and issuance number. The first time an advisory is issued for a phenomenon associated with a particular weather system, it will be given the next alphabetic designator in the series and will be numbered as the first for that designator. Subsequent advisories will retain the same alphabetic designator until the phenomenon ends. In the conterminous U.S., this means that a phenomenon that is assigned an alphabetic designator in one area will retain that designator as it moves within the area or into one or more other areas. Issuance's for the same phenomenon will be sequentially numbered, using the same alphabetic designator until the phenomenon no longer exists. Alphabetic designators NOVEMBER through YANKEE, except SIERRA and TANGO are only used for SIGMET's, while designators SIERRA, TANGO and ZULU are used for AIRMET's.

Pilot Weather Report (PIREP)

Pilots must report any significant weather or flight condition to ATC as soon as possible. Additionally, all significant weather or flight conditions that clearly differ from the forecast should be reported to Dispatch. There is no specific format for this type of report.

NOTE: Report windshear encountered during departure or approach to the tower controller as soon as possible.Use the term PIREP to ensure that it is rebroadcast.