### **List of Acronyms**

# The following is a list of alphabetical acronyms & abbreviations common to the unmanned systems field.

AASLS: Autonomous Analytical Scientific Laboratory at Sea.

ACCS: Army Command and Control System (US)/Air Command and Control System

(NATO)

Accel: Acceleration ACK: Acknowledge

ACM: Airspace Control Means ACO: Airspace Control Order

ADatP-3: Allied Data Publication – 3 ADS: Automatic Dependent Surveillance

ADT: Air Data Terminal ADU: Air Defense Unit AGL: Above Ground Level

AGVT: Advanced Ground Vehicle Technology AMHC: Autonomous Marine Handling Craft AMHS: Autonomous Marine Handling System AMRS: Autonomous Marine Refueling System

AMDN: Autonomous Mine Detection and Neutralization

AMPS: Aviation Mission Planning System

AMPN: Amplification

ANSI: American National Standards Institute

AoA: Analysis of Alternatives

AOA: Angle Of Attack AOI: Area Of Interest

AP: Allied Publication/Alliance Publication API: Application Program(ming) Interface

ASCII: American Standard Code for Information Interchange

ASM: Air Space Management ASV: Advanced Surface Vehicles ASW: Anti-Submarine Warfare

ATC: Air Traffic Control

ATP: Allied Tactical Publication ATR: Automatic Target Recognition

ATS: Air Traffic Services

AHRS: Attitude & Heading Reference System

AUB: Autonomous Unmanned Boat AUV: Autonomous Unmanned Vehicles

BDA: Battle Damage Assessment

BER: Bit Error Rate BIT: Built-in-Test

BITE: Built-in-Test Equipment

BLOS: Beyond Line of Sight BOM: Bit-Oriented Message C2/C & C: Command and Control CBIT: Continuous Built-in-Test CCI: Command & Control Interface

CCISM: Command and Control Interface Specific Module

CDL: Common Data Link

CEN: European Standardization Organization

CEP: Circular Error Probability CFOV: Centre Field of View

CG: Centre of Gravity

CGS: Common Ground Segment/Common Ground Station/Common Ground System

CIRC: Circular

CJTF: Combined Joint Task Force

COA: Certificate of Authorization. A FAA approval for a UAV flight

COE: Common Operating Environment

CONOPS: Concept of Operations COP: Common Operational Picture COTS: Commercial-Off-The-Shelf

CR: Communications Relay CRD: Common Route Definition

CRT: Cathode Ray Tube

CUCS: Core UAV Control System

DC: Direct Current

DCE: Distributed Computing Environment

DCM: Data Link Control Module

DIGEST: Digital Geographic Information Exchange Standard

DII: Defense Information Infrastructure

DII/COE: Defense Information Infrastructure/Common Operating Environment

DL: Data Link

DLI: Data Link Interface

DoD: Department of Defense

DTED: Digital Terrain Elevation Data ECM: Electronic Counter Measures

EFI: Electronic Fuel Injection

EIA: Electronic Industries Association

EIA/IS: EIA Interim Standard EKF: Extended Kalman Filter ELINT: Electronic Intelligence EMCON: Emission Control EMP: Electromagnetic Pulse

EO: Electro-Optical

EO/IR: Electro Optical/Infrared

EP: External pilot

ERF: Ego-Referenced Frame

ERS: Emergency Recovery System ESM: Electronic Support Measures ETA: Estimated Time of Arrival

ETSI: European Telecommunications Standards Institute

EW: Electronic Warfare

FASST: Futaba Advanced Spread Spectrum Technology

FHSS: Frequency-Hopping Spread Spectrum

FLIR: Forward Looking Infrared FOB: Forward Operations Base

FOV: Field of View

FTP File Transfer Protocol GCS: Ground Control Station GDT: Ground Data Terminal GMT: Greenwich Mean Time

GMTI: Ground Moving Target Indicator GNC: Guidance Navigation System

GNSS: Global Navigation Satellite System

GOTS: Government Off-The-Shelf GPS: Global Positioning System GUI: Graphical User Interface

HALE: High Altitude, Long Endurance HCI: Human Computer Interface

HF: High Frequency

HIS: Hyperspectral Imagery

HL: Hand Launched

Hz: Hertz, cycles per second

I/O: Input/Output

ICAO: International Civil Aviation Organization

ID: Identification

IDD: Interface Design Description/Interface Definition Document

**IEA**: Information Exchange Agreements

IEC: International Enterprise Committee/International Electro technical Commission

IEEE: Institute of Electrical and Electronics Engineers

IER: Information Exchange Requirements

IES: Imagery Exploitation System IETF: Internet Engineering Task Force

IFF: Identification Friend or Foe

IL: Image Library

iMOC: Integrated Mobile Operational Command

INS: Inertial Navigation System IP: Internet Protocol/Internal Pilot

IR: Infrared

IRS: Interface Requirements Specifications ISAR: Inverse Synthetic Aperture Radar ISDN: Integrated Services Digital Network

ISG: Industry Support Group

ISO: International Organization for Standardization

ISO/CD: Committee Draft of ISO

ISO/DIS: Draft International Standard of ISO ISR: Intelligence, Surveillance, Reconnaissance

ISTAR: Intelligence, Surveillance, Target Acquisition and Reconnaissance

ITAR: International Traffic in Arms Regulations

ITDP: International Technology Demonstration Program

ITU: International Telecommunication Union

ITU-T(SB): International Telecommunications Union – Telecommunications

(Standardization Bureau)

JAUS: Joint Architecture for Unmanned Systems JFACC: Joint Force Air Component Commander

JFC: Joint Force Commander

JPEG: Joint Photographic Experts Group

JSH: JASA Standards Handbook

JSWG: JASA Standards Working Group

JTA: Joint Technical Architecture

JTF: Joint Task Force

JTFC: Joint Task Force Commander

L&R: Launch and Recovery

L-16: Link-16 (TADIL-J message standard)

LIDAR: Light Detection and Ranging

LAN: Local Area Network LAS: Laboratory at Sea

LB: Land-Based

LCD: Liquid Crystal Display LCS: Littoral Combat Ship LOI: Level of Interoperability

LOS: Line of Sight

LRF: Laser Range Finder MAC: Medium Access Control

MAV: Micro Air Vehicle

MGRS: Military Grid Reference System

MHC: Marine Handling Craft MHS: Marine Handling System

MIJI: Meaconing, Intrusion, Jamming, and Interference

MIL: Military

MIL-STD: Military Standard

MIME: Multipurpose Internet Mail Extension

MIN: Minimum

MIO: Maritime Interdiction Operations Support

MMP: Modular Mission Payload

MMS: Manufacturing Messaging Specification

MOA: Memorandum of Agreement

MOC: Mobile Operational Command

MOTS: Military Off-The-Shelf

MOU: Memorandum of Understanding MP: Mission Planning/Mission Planner

MPO: Mission Planning Operator/Mission /Payload Operator

MPS: Meters per second MR: Marine Robotics

MSE: Mobile Subscriber Equipment

MSI: Multi-Spectral Imagery MSK: Minimum Shift Keying MSL: Mean Sea Level

MTF: Message Text Formats

MTI: Moving Target Indicator

NATO: North Atlantic Treaty Organization NBC: Nuclear, Biological and Chemical

NIR: Near Infrared

NITF: National Imagery Transmission Format

NITF: National Imagery Transmission Format Standard NIST: National Institute of Standards and Technology

NRT: Non-Real Time

NSE: Non Standard Equipment NSW: Naval Special Warfare NTF: Network File Server

NTSC: National Transmission Standards Committee

NUMS: Network of Unmanned Systems

OARS: Operator-Aided Autonomous Recovery Systems

OAS: Obstacle Avoidance Software

OCU: Operator Control Unit OPFOR: Opposing Force

**OPS: Operations** 

OSE: Open System Environment

OSI: Open System Interconnection (model)

OTH: Over The Horizon

OTH-T: Over The Horizon â€" Targeting

PDU: Power Distribution Unit PG/35: Project Group 35 PTO: Power Take-Off

PMU: Power Management Unit

PO: Payload Operator

Pyld: Payload Rad: Radians

RAID: Redundant Array of Inexpensive/Independent Disks

RECCEXRE: Reconnaissance Exploitation Report

RF: Radio Frequency

RFC: Request for Comment

RMMV: Remote Multi-Mission Vehicle ROS: Relief on Station/Rules of Safety

RP: Route Plan

RPAS: Remotely Piloted Aircraft Systems

Rpt: Report RT: Real Time

RTP: Real Time Protocol/ Real Time Processor

Rx: Receive

SA: Situational Awareness

SALUTE: Size, Activity, Location, Unit, Time, Equipment SAR: Synthetic Aperture Radar/Search And Rescue

SATCOM: Satellite Communications

SB: Sea-based SEC: Seconds

SED: Signal External Descriptor SIGINT: Signals Intelligence

SINCGARS: Single Channel Ground and Airborne Radio System SMPTE: Society of Motion Picture and Television Engineers

SMTP: Simple Mail Transfer Protocol

SNR: Signal to Noise Ratio

SOF: Special Operations Forces Support

ST: Specialist Team

STANAG: (NATO) Standardization Agreement

SUW: Surface Warfare TBD: To Be Defined

TCDL: Tactical Common Data Link

TCP/IP: Transfer Control Protocol/Internet Protocol

TCU: Tactical Control Unit

Tgt: Target TX: Transmit

UAASLS: Unmanned Autonomous Analytical Scientific Laboratory at Sea

**UAS: Unmanned Aircraft Systems** 

UAV: Unmanned Aerial Vehicle/Uninhabited Aerial Vehicle

**UB: Unified Build** 

UCAV: Unmanned/ Uninhabited Combat Aerial Vehicle

UDP: User Datagram Protocol
UES: UAV Exploitation System
UGV: Unmanned Ground Vehicle
USV: Unmanned Surface Vehicles

USSV: Unmanned Sea Surface Vehicles

UHF: Ultra High Frequency

UI: User Interface

UJTL: Universal Joint Task List UPS: Uninterruptible Power Supply URL: Uniform Resource Locator USIS: United States Imagery Standards

USMTF: United States Message Text Formatting

UTC: Universal Time Coordinated UTM: Universal Transverse Mercator UUV: Unmanned Underwater Vehicle

VCR: Video Cassette Recorder

VDL: VHF Data Link VDU: Visual Display Unit VHF: Very High Frequency

VISP: Video Imagery Standards Profile

VMAP: Vector Map

VMF: Variable Message Format VNIR: Visible Near Infrared VSM: Vehicle Specific Module

VTOL: Vertical Take-Off and Landing

WAN: Wide Area Network WAS: Wide Area Subsystem

WGS-84: World Geodetic System – 84

WIMP: Windows, Icons, Mouse and Pull-down/pop-up (menus)

WP: Waypoint

WRF: World-Referenced Frame XML: Extended Mark-up Language

# **NOAA UAS Specific**

ACTD Advanced Concept Technology Demonstration

AFRC Armstrong Flight Research Center

AOA Analysis of Alternatives

AVAPS Airborne Vertical Atmospheric Profiling System

AV-6 NASA ACDT Global Hawk, Air Vehicle 6

AWIPS Advanced Weather Interactive Processing System
CIRA Cooperative Institute for Research in the Atmosphere

CIRES Cooperative Institute for Research in

**Environmental Sciences** 

CPL Cloud Physics Lidar
CONOPS Concepts of Operation
DMP Data Management Plan

ECMWF European Center for Medium range Weather

Forecasting

EDMF Environmental Data Management Framework

ENRR El Nino Rapid Response

EPOCH East Pacific Origin and Characteristics of Hurricanes

GHOC Global Hawk Operations Center

GRIP Genesis and Rapid Intensification Processes

GTS Global Telecommunications System

HALE High Altitude, Long Endurance

HAMSR High Altitude MMIC Sounding Radiometer

HIRAD Hurricane Imaging Radiometer

HIWRAP High-altitude Imaging Wind and Rain Profiler

HRR Hurricane Rapid Response

HS3 Hurricane and Severe Storm Sentinel

HWRF Hurricane Weather Research and Forecasting

JPL Jet Propulsion Laboratory
JPSS Joint Polar Satellite System
LIP Lightning Instrument Package

MADIS Meteorological Assimilation Data Ingest System

MMIC Monolithic Microwave Integrated Circuit

MTS Mission Tool Suite

MUM-T Manned-Unmanned Teaming

NASA National Aeronautics and Space Administration

NEIS NOAA Earth Information System

NHC National Hurricane Center

NOAA National Oceanic and Atmospheric Administration

NRL Naval Research Laboratory
NWP Numerical Weather Prediction

OAR Office of Oceanic and Atmospheric Research
OMAO Office of Marine and Aviation Operations

ONR Office of Naval Research
OSE Observing System Experiment

OSSE Observing System Simulation Experiment

QA Quality Assurance

S-HIS Scanning High-resolution Interferometer Sounder SHOUT Sensing Hazards with Operational Unmanned

Technology

TCI Tropical Cyclone Intensity
TRL Technology Readiness Level
UAS Unmanned Aircraft Systems
USAF United States Air Force
WFF Wallops Flight Facility

WISPAR Winter Storms and Pacific Atmospheric Rivers

#### **NOAA Cooperative Institutes**

CIFAR: Cooperative Institute for Arctic Research (CIFAR), Fairbanks, AK

CICAR: Cooperative Institute for Climate Applications and Research (CICAR),

Columbia University, Palisades, NY

CINAR: Cooperative Institute for the North Atlantic Region (CINAR), Woods Hole

## Oceanographic Institution, Woods Hole, MA

CICS-P: <u>Cooperative Institute for Climate Science (CICS-P)</u>, Princeton University, Princeton, NJ)

CICS-M: <u>Cooperative Institute for Climate and Satellites (CICS-M)</u>, University of Maryland

CILERS: <u>Cooperative Institute for Limnology and Ecosystems Research (CILER)</u>
University of Michigan, Ann Arbor, MI

CIMAS: <u>Cooperative Institute for Marine and Atmospheric Studies (CIMAS)</u>, University of Miami, Miami, FL

CIMMS: <u>Cooperative Institute for Mesoscale Meteorological Studies (CIMMS)</u>, University of Oklahoma, Norman, OK

CIRA: <u>Cooperative Institute for Research in the Atmosphere (CIRA)</u>, Colorado State University, Fort Collins, CO

CIRES: <u>Cooperative Institute for Research in Environmental Sciences (CIRES)</u>, University of Colorado, Boulder, CO

JIMAR: <u>Joint Institute for Marine and Atmospheric Research (JIMAR)</u>, University of Hawaii, Honolulu, HI

JIMO: <u>Joint Institute for Marine Observations (JIMO)</u>, La Jolla, CA

JISAO: <u>Joint Institute for the Study of the Atmosphere and Ocean (JISAO)</u>, Seattle, WA

NGI: Northern Gulf Institute (NGI), Mississippi State University, MS