JOINT CANADA-UNITED STATES
NATIONAL STANDARD

STANDARD FOR SAFETY

ANSI/CAN/UL-3030:2018, Unmanned Aircraft Systems

Approved American National Standard

ANSI

ANSI/UL 3030-2018

Standards Council of Canada
Conseil canadien des normes

SCC FOREWORD

National Standard of Canada

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UL Standard for Safety for Unmanned Aircraft Systems, UL 3030

First Edition, Dated September 18, 2018

Summary of Topics

The First Edition of Standard for Unmanned Aircraft Systems, ANSI/CAN/UL 3030 has been issued.

The requirements are substantially in accordance with Proposal(s) on this subject dated October 6, 2017 and May 18, 2018.

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SEPTEMBER 18, 2018

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UL 3030

Standard for Unmanned Aircraft Systems

First Edition

September 18, 2018

This ANSI/CAN/UL Safety Standard consists of the First Edition.

The most recent designation of ANSI/UL 3030 as an American National Standard (ANSI) occurred on September 18, 2018. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page, Preface or SCC Foreword.

This standard has been approved as a National Standard of Canada (NSC) by the Standards Council of Canada (SCC).

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Preface (UL)

This is the First Edition of the ANSI/CAN/UL 3030 Standard for Safety for Unmanned Aircraft Systems.

UL is accredited by the American National Standards Institute (ANSI) and the Standards Council of Canada (SCC) as a Standards Development Organization (SDO).

This Standard has been developed in compliance with the requirements of ANSI and SCC for accreditation of a Standards Development Organization.

This ANSI/CAN/UL 3030 Standard is under continuous maintenance, whereby each revision is approved in compliance with the requirements of ANSI and SCC for accreditation of a Standards Development Organization. In the event that no revisions are issued for a period of four years from the date of publication, action to revise, reaffirm, or withdraw the standard shall be initiated.

In Canada, there are two official languages, English and French. All safety warnings must be in French and English. Attention is drawn to the possibility that some Canadian authorities may require additional markings and/or installation instructions to be in both official languages.

Comments or proposals for revisions on any part of the Standard may be submitted at any time. Proposals should be submitted via a Proposal Request in the On-Line Collaborative Standards Development System (CSDS) at http://csds.ul.com.

To purchase UL Standards, visit the UL Standards Sales Site at http://www.shopulstandards.com/HowToOrder.aspx or call tollfree 1-888-853-3503.

This Edition of the Standard has been formally approved by the UL Standards Technical Panel (STP) on Unmanned Aircraft Systems, STP 3030.

This list represents the STP 3030 membership when the final text in this standard was balloted. Since that time, changes in the membership may have occurred.

STP 3030 Membership

Name	Representing	Interest Category	Region
Albuquerque, Paul V	Federal Aviation Administration	Government	USA
Bablo, Joseph M	UL LLC	Testing and Standards	USA
Bloch-Hansen, Craig E	Transport Canada	Government	Canada
Davis, Barbara J.	Underwriters Laboratories Inc.	Project Manager (Non-Voting)	USA
Haines, Eric C	NUAIR Alliance	Commercial/Industrial User	USA
House, Jim	The Colonial Group	General	Canada
Karol, Thomas	NAMIC	General	USA
Kenul, Philip M	Trivector Services	Producer	USA
Lamb, Tracy L	AUVSI	General	USA
Lucius, William C	Air Line Pilots Association	General	USA
McLaughlin, Brent E	Asylon, Inc.	Commercial/Industrial User	USA
Palombo, David S	Aveox Inc.	Supply Chain	USA
Prince, Deborah	Underwriters Laboratories Inc.	STP Chair (Non-Voting)	USA
Ranta, Craig	Aeryon Labs Inc	Producer	Canada
Rowland, Shawn C	Drones Etc.	General	USA
Sasso, Nick	State of Wyoming	AHJ	USA
Stockwell, Walter K	DJI Research LLC	Producer	USA
Susiene, William H	Intel	Producer	USA
Todd, Lawrence E.	Intertek	Testing and Standards	USA
Wang, Jiangdong	CQC	Testing and Standards	China
Yang, Shuping	Beijing Research Institute of Automation for Machinery Industry	International Delegate	China
Zheng, Junqi	SEARI	Testing and Standards	China

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This Standard is intended to be used for conformity assessment.

The intended primary application of this standard is stated in its scope. It is important to note that it remains the responsibility of the user of the standard to judge its suitability for this particular application.

CETTE NORME NATIONALE DU CANADA EST DISPONIBLE EN VERSIONS FRANÇAISE ET ANGLAISE.

INTRODUCTION

1 Scope

1.1 These requirements cover the electrical system of unmanned aircraft systems (UASs), as defined in this Standard, used in flight for commercial applications or flight incidental to business applications. UASs covered by these requirements are intended to be operated by certified UAS pilots as identified in the Federal Regulations, where the unmanned aircraft is less than 25 kg (55 lbs). The UAS is intended to be provided with an internal lithium ion battery that is charged from an external source. UASs are intended to have an operating voltage of not greater than 100 V dc, and are intended for outdoor operation. These requirements also cover the electrical shock, fire and explosion hazards associated with the inherent features of these UASs, as well as the battery and charger system combinations provided for recharging the UAS.

1.2 With reference to 1.1, flight for commercial applications is considered any operation where the UAS is intended for a specific use; which may include, but is not limited to, agricultural applications, scientific or research applications, government or local police applications, search and rescue applications, video applications for the film industry or news broadcasts, and the like. Flight incidental to business is a subset of commercial applications that may consist of roof inspections by insurance agents or construction workers, real estate photography, and the like.

1.3 This Standard does not cover:

a) Model aircraft, or hobby use, UASs which are marketed to and intended to be operated by the general public;

b) The aspects of control associated with the human pilot (pilot error), UAS handling, contact or impact of the UAS with external objects, people or structures, or adverse weather conditions such as high winds that may affect operation, or the general airworthiness of the aircraft;

c) The ability of the UAS to correctly or adequately perform its intended operation;

d) The ability of the UAS to land safely if the battery is discharged in flight;

e) Any physiological effects associated with the use of UASs;

f) Devices for use in hazardous (classified) locations, which are subject to additional requirements to mitigate risks of fire and explosion;

g) UASs used for any military or similar tactical operation; or

h) The efficacy of UAS communications or the effects of the loss of UAS communication during flight.

1.4 The requirements of this Standard do not consider Federal Regulations associated with the operation of commercial UASs. The operation of commercial UASs is intended to be in accordance with all Federal Regulations when the UAS is used.