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Titolo Small unmanned aircraft systems guide: exploring designs, operations,

regulations, and economics / / Brent Terwilliger [and three others]

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Descrizione fisica 1 online resource (xx, 262 pages) : illustrations

Disciplina 629.13339

Soggetti Drone aircraft

Drone aircraft - History

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Nota di bibliografia Includes bibliographical references and index.

Nota di contenuto History of UAS: where did they come from and where are they headed?

-- Introduction -- Early predecessors -- Unmanned aircraft development -- From tactical to transformational technology --

Transition from UAV to UAS -- OpenSource to crowdfunding -- Related

technology and innovative development -- Regulation set the stage for the (r)evolution -- Application of sUAS: understanding Uses --Introduction -- Common Uses -- Recreation and hobby -- Precision agriculture -- Public safety and service -- Communications -- Aerial

agriculture -- Public safety and service -- Communications -- Aerial filming -- Cargo transport -- Environmental monitoring -- Training and education -- Research -- Emerging Uses and challenges -- On the horizon -- Variety of design: exploring the technological possibilities

-- Introduction -- Platform design configurations -- Platform types -- Categories and designations -- System composition -- Major elements

and equipment -- Aerial element -- Payload -- Ground-based command, control, and communication (C3) -- Human element --

Support equipment -- Legal, environmental, and operational considerations: a map to navigate the maze -- Introduction -- Regulatory framework -- Maintaining safety in the national airspace

system -- Model aircraft and sUAS -- Approved operation of UAS -- Regulatory policies and resources -- Operating environment --

Visibility -- Altitude -- Hazards and obstacles -- Operational

environments -- Weather -- Environmental considerations -- sUAS

operation -- General aeronautical knowledge -- Fixed-wing flight --VTOL flight -- Remote operation -- Pilot-in-command and visual observer coordination -- Autonomous (automatic) operation --Geofencing -- Data capture and processing -- Operational planning and preparation -- Schedule, coordinate, and conduct operations --Hour logging and reporting -- Maintenance, calibration, and diagnosis -- sUAS operational considerations -- Business of unmanned aviation: from agencies to startups -- Introduction -- UAS stakeholders --Organizational structures -- Stakeholder roles and collaboration --Business opportunity and development -- Starting a business -- In field employment -- Acquisition, support, and cost planning --Incorporating sUAS operations -- Growth areas and challenges --Preparing for the future: accurate information makes all the difference -- Introduction -- Finding information -- Regulatory information --UAS test sites and Center of Excellence -- Governmental-sponsored, Advocacy, and Public Outreach Organizations.