📜 Chapter: Standards Learning Roadmap (SDR-Drone / Tech / Open Standards)

✅ What You'll Gain by the End

✔ Ability to read, interpret, and reference standards in defense, SDR, and technical domains
✔ Capability to write or adopt your own standard or spec (MIL-like or open)
✔ Familiarity with conformance and certification language
✔ Access to global standardization bodies for further engagement or authorship

🔰 OVERVIEW

Focus Area	What You'll Learn	Outcomes
🛰️ SDR / Radio	MIL-STDs, environmental, EMI/EMC standards	Defense-compliant specs, test readiness
🌐 Software / Internet	Protocol standards like TCP/IP, HTTP, RFC process	Understand and reference open standards
🏛️ Open Governance	How standards are made, maintained, and adopted	Create or adopt your own standards

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✅ Phase 1: Foundations of Standardization (Weeks 1–2)

Resource	Link	Certificate?
🔹 **ISO eLearning: "How ISO develops standards"**	ISO Training Portal	✅ Free
🔹 **Alison: "ISO & IEC Standardization – Introduction"**	Alison Course	✅ Free
🔹 **WTO eLearning: Standards and Technical Barriers to Trade**	WTO eLearning Portal → Search for *TBT*	✅ Free
🔹 **ANSI: Standards 101**	ANSI Learn	❌ (Free read only)

Outcomes:

- Understand open vs. proprietary standards
- Learn about ISO, IEC, ANSI, WTO, and national standard bodies
- Know how standards impact trade, procurement, and testing

✅ Phase 2: SDR / Defense-Specific Standards (Weeks 3–5)

Resource	Link	Certificate?
🛡️ **Defense Acquisition University (DAU): Intro to Specifications, MIL-STDs**	DAU iCatalog → Search for: *LOG 103, ENG 101, CLE 068*	✅ Free (for US-based access or via partner orgs)
📄 **NIST Engineering Resources & Testing**	NIST.gov	❌

Resource	Link	Certificate?
🔍 **QuickSearch for MIL-STDs (Official access)**	DLA ASSIST	✅ Free access
🎓 **ASTM Compass Training** (if access via institution)	ASTM Learning	💰 Paid (if standalone)

Suggested Standards to Read:

- MIL-STD-810H (Environmental Testing)
- MIL-STD-461G (EMI/EMC)
- MIL-STD-882E (System Safety)
- ASTM F2910, F3201 (UAV/Drone standards if access granted)

Outcomes:

- Read, cite, and understand defense specs
- Know how testing and certification align to procurement
- Be ready to create SDR compliance specs

✅ Phase 3: Software / Networking Standards (Weeks 6–7)

Resource	Link	Certificate?
🌐 **Coursera: "Internet History, Technology, and Security"** by Charles Severance	Coursera Course	✅ Free with audit
📜 **IETF Tutorial: "How to Read and Write RFCs"**	IETF Edu + RFC Editor Guide	❌
🌐 **IEEE Xplore Open Access Articles**	IEEE Access → Search "Standards Development"	❌

Resource	Link	Certificate?
🛠️ **GitHub Repos for Open Standards Implementations (e.g. TCP/IP, MQTT)**	GitHub Search: "RFC implementation"	✗

Outcomes:

- Understand protocol stack standardization
- Read and trace RFC-based specs
- Write software that follows open protocol standards

✅ Phase 4: Governance and Participation (Weeks 8–9)

Resource	Link	Certificate?
🔷 **The Open Group: Standards Process & Architecture TOGAF**	Open Group Courses	✅ (Paid)
🏫 **ISO Academy / IEC Academy**	ISO Training	✅ (Paid & Free)
🏛️ **Join a Standards Development Org (optional)**	IEEE SA, ETSI, IETF	Membership optional

Outcomes:

- Learn how standards are formally made and adopted
- Get access to real-world working groups and drafts
- Begin contributing or referencing standards meaningfully

🧰 Bonus: Tools & Repositories to Use Alongside

Tool	Purpose	Link
🕮 **PDF/UA Checker**	Validate machine-readable tagged docs	PAC 2021
🛇 **LibreOffice**	Author exportable tagged PDFs	LibreOffice
💬 **ChatGPT + QuickSearch**	Co-develop MIL-specs with AI assistance	You're using it now ✔
🛍 **IEEE DataPort & IETF Datatracker**	Access standards + open data	IEEE DataPort / IETF Datatracker

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