

# **LVVSA STUDENT TRAINING RECORD**

Student Name:\_\_\_\_\_

#### **STUDENTS**

It is your responsibility to maintain of this training record. Have it with you whenever you come to fly or when you receive ground instruction.

This student training record is designed to aid students in self study and to provide feedback and trend analysis for in flight maneuvers and tasks. Do not wait for instructors to give you reading assignments from this document. Ask you instructor to give you a reading assignment or use the guidance give below and begin reading on your own. Once you have completed a reading assignment be sure to schedule some time with an instructor to be sure you understand the material. You will most likely not need to be intimately familiar with some subjects, like Drogue Chute Malfunctions, for your checkride. They are included here for students to become generally familiar with.

There is quite a bit of redundancy in the readings considering that the AIM, GFH, and PHAK oftentimes cover the same subject matter. Some sources are more comprehensive that others or present information in a different way. It is not necessary that you read all three sources on a given subject. It is a good idea to keep up with the reading so that it does not all pile up on you at the end of training.

#### Required Reference Material

Aircraft Weight and Balance

FAR/AIM

Glider Flying Handbook 2013 (GFH)

Pilot's Handbook of Aeronautical Knowledge (PHAK)

Pilot's Operating Handbook (POH)

Practical Test Standards (PTS)(1999 – Private) (2006 – Commercial) (CFI – 2006)

Current Written Test Prep Guide (After Solo)

Aviation Instructor's Handbook (2008) (For CFI-G Training)

Fundamentals of Instruction Test Prep Guide (For CFI-G Training)

#### **INSTRUCTORS/STUDENTS**

This document is also designed to provide a general flow to be followed so that we produce professional pilots. Part 61.87 requirements for solo are identified as indicated below.

- 1. \* Knowledge, maneuvers, and procedures subjects required prior to solo by 61.87
- 2. Underlined items should be completed prior to solo at the instructor's discretion
- 3. Bold Items are FAA special interest items reference COMMERCIAL and CFI PTS Intro
- 4. Other items should be completed after solo at the instructor's discretion and in keeping with PTS guidance

#### **Grading of Flight Tasks and Maneuvers**

- 1 = Demo
- 2 = Performed with assistance
- 3 = Performed without assistance
- 4 = Solo Proficient
- 5 = Checkride Proficient
- C = Critical Safety Item

### **FAA SPECIAL INTEREST ITEMS**

- POSITIVE AIRCRAFT CONTROL
   POSITIVE EXCHANGE OF FLIGHT CONTROLS
- 3. STALL AND SPIN AWARENESS
- 4. COLLISION AVOIDANCE
- 5. WAKE TURBULENCE AND LOW LEVEL WIND SHEAR AVOIDANCE
- 6. RUNWAY INCURSION AVOIDANCE
- 7. CONTROLLED FLIGHT INTO TERRAIN (CFIT)
- 8. AERONAUTICAL DECISION MAKING/RISK MANAGEMENT
- 9. CHECKLIST USEAGE
- **10. SPATIAL DISORIENTATION**
- 11. TEMPORARY FLIGHT RESTRICTIONS (TFR)
- 12. SPECIAL USE AIRSPACE (SUA)
- **13. AVIATION SECURITY**
- 14. WIRE STRIKE AVOIDANCE

Requirements to Solo
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	* Must be 14 years old
	* Must have taken the pre-solo written test
	* Pre-solo written test must be reviews by an instructor
	*Logbook endorsement for the type of launch being used for solo flight
	*Logbook endorsement for the type of glider to be flown
Requir	ements to Take a Checkride
	1
	Must be 16 years old
	Logbook endorsement certifying that you are prepared for the knowledge test
	Pass the required knowledge test and have an authorized instructor go over the questions missed
	Logbook endorsement certifying that you have received required training and are prepare for the practical test
	Logbook endorsement for the type of launch being used for the practical test
	Meet the aeronautical experience requirements before applying for the practical test
	Hold an appropriate pilot certificate
	Have an airworthy glider with dual flight controls
	Coordinate with the flight examiner

CEL					
CFI					
DATE					
FLT TIME					
*Weather					
Soaring Weather					
*NOTAMS					
*TFR's					
*Weight & Balance					
X-Country Plan					
*Performance Data					
*Certificated/Docs					
Briefing					

# Pre and Post Flight Tasks and Inspections

*Assy/Dis-Assy					
*Preflt Inspection					
Inspect Towline/Ring					
*Pos Control Chk					
*Ground Handling					
*Taking the Runway					
Cockpit Management					
*Post Flt Inspection					

*Before T/O Check					
<u>CRM</u>					
*Pilot/Runner Signals					
*Normal T/O					
*X-Wind T/O					
*PTT					
*On Tow					
*Pilot/Tow Pilot Sig					
*Slackline Recovery					
Box the Wake					
*Inability to Release					
*Tow Release					

# Traffic Patterns and Landings

*Before Landing Chk					
*Enter Traffic Pattern					
*Traffic Pattern					
*Final Approach					
*Normal Landing					
*X-Wind Landing					
*Hazard Winds/Turb					
*Slips to Land					
No Spoiler App/Land					
*Downwind Landing					
Accuracy Landing					
Low Energy Landing					
Simulated Out Land				·	
Pitot-Static Inop					

Aircraft Control					
<b>Change of Flt Control</b>					
<u>CRM</u>					
Judgment					
Radio Communication					
*Scan/Collision Avoid					
*SA					

CEL					
CFI					
DATE					
FLT TIME					
*Weather					
Soaring Weather					
*NOTAMS					
*TFR's					
*Weight & Balance					
X-Country Plan					
*Performance Data					
*Certificated/Docs					
Briefing					

#### Pre and Post Flight Tasks and Inspections

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*Assy/Dis-Assy						
*Preflt Inspection						
Inspect Towline/Ring						
*Pos Control Chk						
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Cockpit Management						
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CRM					
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CFI					
DATE					
FLT TIME					
* <u>Weather</u>					
Soaring Weather					
*NOTAMS					
*TFR's					
*Weight & Balance					
X-Country Plan					
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Briefing					

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CRM					
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*Normal T/O					
*X-Wind T/O					
*PTT					
*On Tow					
*Pilot/Tow Pilot Sig					
*Slackline Recovery					
Box the Wake					
*Inability to Release					
*Tow Release					

Airwork					
CFI					
DATE					
FLT TIME					
*Straight Glide					
*Clearing Turns					
*Turns (Shallo/Med)					
*Turns (Steep)					
*Straight Stalls					
*Stalls w/Spoilers					
*Turning Stalls					
*Turn Stall w/Spoiler					
*X-Control Stalls					
Spins/Spin Entry					
*Spiral Dive Recovery					
*MCA					
*Min Sink/Best Glide					
*Speed to Fly					
*Thermalling					
Ridge Soaring (CFIT)					
Wave Soaring					
*Descents & w/Turns					
*Canopy Malfunction					
VFR On Top					

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*Normal T/O					
*X-Wind T/O					
*PTT					
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All WOLK					
CFI	 		 	 	
DATE					
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*Straight Glide					
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*Min Sink/Best Glide					
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Ridge Soaring (CFIT)					
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*Descents & w/Turns					
*Canopy Malfunction					
VFR On Top					

# **Traffic Patterns and Landings**

*Before Landing Chk					
*Enter Traffic Pattern					
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<u>CRM</u>					
<u>Judgment</u>					
Radio Communication					
*Scan/Collision Avoid					
*SA					

# **Glider Ground Training Syllabus**

Applicable Sections of Part 43 and Part 91 (Maintenance)

43.1(a)(b): Applicability 43.3 (d (g)(k): Persons authorized to perform mx 43.5: Approval for return to service 43.7(f): Approval for return to service 43.9(a): Maintenance record entries 43.12: Falsification of maintenance records 43.13(a)(b): Performance Rules Part 43 App A(c): Preventative maintenance	91.401: Applicability 91.403: General 91.405: Who is responsible for maintenance 91.407: Operation after maintenance 91.409: Inspections (a)(b)(c) 91.411: Altimeter/altitude reporting tests/ inspections 91.413: ATC transponder tests and inspections 91.417: Maintenance records 91.419: Transfer of maintenance records
Applicable Section	s of Part 61 (Certification)
Applicable Section	sol Fait of (Certification)
61.2(a)(5), (a)(6): Medical certificates	*61.83(b): Eligibility requirements for students
61.2(b): Currency	*61.87(b): Aeronautical knowledge
*61.3(a): Documents in your possession.	*61.87(c): Pre-solo flight training
*61.3(c): Med Certificate (In your possession)	*61.87(i): Maneuvers pre-solo flt tng in a glider
*61.3(d): CFI Certificate (In your possession)	*61.87(n): Limits students operating aircraft solo
*61.15: Offenses involving alcohol or drugs	*61.87(p)(4): Solo Logbook endorsement
*61.16: Refusal to submit to alcohol test	*61.89(a): General student pilot limitations
61.17: Temporary Certificates	*61.95(a): Student ops in class B airspace
61.18: Security Disqualification	61.103: Eligibility (Private Pilot)
*61.19(b): Duration of student pilot cert	61.105: Knowledge (Private Pilot)
61.19(c)(d): Duration of pilot certificates	61.107(a)(b)(6): Proficiency (Private Pilot)
*61.23(b): Ops not requiring a med cert	61.109(f): Experience (Private Pilot)
61.25: Change of name	61.113: Limitations (Private Pilot)
61.27: Surrender or exchange of certificate	61.123: Eligibility (Commercial Pilot)
*61.29: Replacement of a lost airman certificate	61.125: Knowledge (Commercial Pilot)
*61.31(j)(1)(i): Additional requirements	61.127(a)(b)(6): Proficiency (Commercial Pilot)
61.35: Knowledge Test	61.129(f): Experience (Commercial Pilot)
61.37: Cheating	61.133: Privileges/Limitations (Comm Pilot)
61.39: Prerequisites for practical tests	61.183: Eligibility (CFI)
61.43: Practical tests	61.185: Knowledge (CFI)
61.45(a)(b)(c): Practical tests: required equip	61.187(a)(b)(6): Proficiency (CFI)
61.49: Retesting after failure	61.189: Flight Instructor Records
*61.51(a): Logbooks: Tng time/experience	61.191: Additional Flight Instructor Ratings
*61.51(d): Logbooks: Logging solo time	61.193: Flight Instructor Privileges
*61.51(e): Logbooks: Logging PIC time	61.195: CFI Limitations and Qualifications
*61.53(b): Operations with a medical deficiency	61.197: Renewal Requirements for CFI's
61.56: Flight Review	61.199: Reinstatement of Expired CFI Certificate
*61.57(a): Recent flight experience	
*61.63(b): Additional Aircraft Category Training	
*61.63(b)(2): Logbook Endorsement	

# Applicable Sections of Part 91 (General Operating and Flight Rules)

	] 91.1: Applicability		] *91.137: TFR's				
	3 *91.3: Responsibility and authority of the PIC		*91.139: Emergency air traffic rules				
	] 91.7: Civil aircraft airworthiness		91.141: Flight restriction for Presidential parties				
	*91.9: POH, marking, placard requirements		91.143: Ops in proximity of space flt ops				
	91.11: Interference with aircrew members		91.144: High barometric conditions				
	*91.13: Careless or reckless operation		91.145: Ops in vicinity of major events				
	*91.15: Dropping objects		91.153: VFR flight plan: Information required				
	*91.17: Alcohol or drugs		*91.155: Basic VFR Minimums (Class A - G)				
	*91.19: Carrying drugs		91.157: Special VFR				
	*91.21: Portable electronic devices		*91.159: VFR Cruising Altitudes				
	*91.25: Aviation Safety Reporting Program		*91.179: IFR Cruising altitude				
	*91.103: Preflight Action		91.203: Civil aircraft: Certifications required				
	*91.105: Crewmembers at stations		*91.205(b): Required instruments /equipment for VFR				
	*91.107(a)(1), (a)(2): Safety belts		91.207: ELT				
	*91.111: Operating near other aircraft		*91.211(a): Supplemental Oxygen				
	*91.113: Right of way rules		*91.213: Inoperative instruments and equipment				
	*91.117: Aircraft speed		*91.215: Transponders				
	*91.119: Minimum safe altitudes		*91.225: ADS-B				
	91.121: Altimeter Settings		*91.309: Towing Gliders (Weak links)				
	91.123: Compliance with ATC		91.319: Experimental certificates				
	91.125: ATC Light Signals		91.505: Familiarity w/limits & emergency equipment				
	*91.126(a)(b): Operating in class G airspace 91.519: Passenger Briefing						
	*91.127: Operating in vicinity class E airspace						
	91.129: Operating in vicinity class D airspace						
	91.130: Operating in vicinity class C airspace						
	*91.131: Operating in vicinity class B airspace						
	91.133: Restricted and prohibited areas						
91.135: Operations in class A airspace							
Applicable Sections of Part 830 (Safety)							
	830.5: Immediate Notification						
	830.6: Information to be given in notification						
	830.10: Preservation of aircraft wreckage, mail, cargo, and records						
	830.15: Reports and statements to be filed						

#### **BASIC ACADEMICS**

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*Aircraft LimitationsFlt Manual/PTS I D	*Local Airspaces and ProceduresCFI-G
*Aircraft SystemsFlt Manual, PTS I C	*Mag CompassPTS I C, PHAK 8-23 – 8-27
*Altimeter SettingAlM 7-2-1 – 7-2-5	*Pitot/Static InstrPTS I C, PHAK 8-2 – 8-10
*Club Rules and ProceduresCFI-G	*Pitot/Static InstrGFH 4-2 – 4-15
*Coll AvoidanceGFH 4-18, 7-24, 10-9, 12-10	*See and AvoidAIM 5-5-8/PTS Intro
*Coll AvoidanceAIM4-4-15, 8-1-8, PTS Intro	*Student Training AreaCFI-G
*Collision AvoidancePHAK 14-28 – 14-34	*Vision InflightAIM 8-1-6
Fitness for FlightAIM 8-1-1, PTS I E	Visual SeparationAIM 4-4-14
*Glider Components/SystemsGFH Ch 2	*Yaw String/InclinometerGFH 4-14 - 4-16
*Glider Flight CharacteristicsPOH, CFI	
BASIC GROUND AND FLIGHT	TASKS
*Aero TowGFH 7-6 – 7-8, 12-8 – 12-10	*Pre-Launch Checklist(Pos Cont Chk)GFH 6-7
*Airspeed ControlCFI-G	*Pre-Launch SignalsGFH 7-2, 12-6 – 12-7
*Preflight InspectionPOH/GFH 6-5	*ScanningPHAK 2-24, 14-28, 17-20 – 17-22
*Before Landing ChecklistGFH 7-22, PTS IV Q	*Straight GlidesGFH 7-27 – 7-28, PTS VII A
*Before T/O ChecklistGFH 6-6 – 6-8, PTS IV A	*Straight/Turning Descents (Intro to Tfc Pats)
Change of Flight ControlsCFI-G, PTS Intro	*Takeoff and ClimbGFH 12-7 – 12-8
Cross Check and Muscle MemoryCFI-G	*Tow Release.GFH 7-8 – 7-9, PTS IV C, IV F, IV G
*Descent, App, LandGFH 12-10	*Traffic PatternsGFH 7-22 – 7-23, PTS III B
*Ground Handling/Securing GFH 6-4 – 6-5	*Traffic Pattern EntryGFH 7-22, AIM 4-3-3
*Launch Equipment InspectionGFH 6-5 – 6-6	*TurnsGFH 3-13, 7-28 – 7-31, PTS VII B
*Normal App/LandingGFH 7-22 – 7-25, PTS IV Q	*Visual Clearing ProceduresAIM 4-4-15
*Normal Assisted T/OGFH 7-2 – 7-5, PTS IV B	_
PRE-SOLO ACADEMICS	<u>S</u>
Agradynamics CEU 2.1 2.10 DUANE 1 E 44	1 *Landing Coar and Wheel Brake CEU 2.9
AerodynamicsGFH 3-1 – 3-19, PHAK 5-1 – 5-44	*Landing Gear and Wheel BrakeGFH 2-8 *METARPHAK 13-6 – 13-8
Aircraft ConstructionPHAK 3-2 – 3-13  Aircraft PerformancePOH, GFH 5-1 – 5-12	
Aircraft PerformanceGFH 7-36 – 7-38	Personal Equipment
Air Nav and Obstruction LightingAIM 2-2	*Preflight PreparationAIM 5-1-1
Airport Markings and SignsAIM 2-3/PTS III C	Principles of FlightPHAK 4-1 – 4-9
Airport Markings and SignsPHAK 14-5 – 14-16	Radio CommunicationsAIM 4-2-1 – 4-2-13
Airport Markings and SignsPHAK App C	Radio CommunicationsPTS III A
Airport OperationsAIM 4-3-1 – 4-3-5	Right of WayGFH 10-13
Airport OperationsPHAK 14-1 – 14-37	Sectional ChartsAIM 9-1-4, CFI-G
AirspaceAIM 3-1-1 – 3-3-2, PTS VIII B	Special Use AirspaceAIM 3-4-1 – 3-4-8
AirspacePHAK 15-1 – 15-11	*TAFPHAK 13-9
Airspace Areas (Other)AIM3-5-1 – 3-5-6	*TAF/METARAIM 7-1-30/PTS I B
Alternate Landing AreasCFI-G	*Takeoff PlanningGFH 12-5 – 12-6
BallastGFH 5-14 – 5-16	*TFR'sAIM 3-5-3
*Components and SystemsGFH 2-1 – 2-9	Tow Rope StrengthGFH 12-4 – 12-5
CRMPHAK 2-4 – 2-5	Traffic Advisory PracticesAIM 4-1-9
Flight ControlsPHAK 6-1 – 6-12	*W & BGFH 5-12 – 5-14, PTS I D, POH
Ground EffectGFH 3-19	*W & BPHAK 10-1 – 10-11
	V & D

#### PRE-SOLO FLIGHT MANEUVERS AND TASKS

*Assembly/DisassemblyGFH 6-2 – 6-4, App A  *Best Glide Speed3-8, 7-37, PTS V B  *Broken RopeGFH 7-4 thru 7-6/PTS IV G  *Crosswind LandingGFH 7-25, PTS IV Q  *Crosswind TakeoffGFH 7-5 – 7-6, PTS IV B  *Downwind LandingGFH 7-27, PTS IV S	*Slackline RecoveryGFH 7-10/PTS IV D  *Slip to LandGFH 3-15 – 3-17PTS IV R  *Spiral DivesGFH 8-15  *StallsGFH 3-17  *Stall Recognition/RecoveryGFH 7-32 – 7-36  *Stall Recognition/RecoveryPTS IX B
*Glider/Tow Plane SignalsGFH 7-2/PTS IV G  *MCAGFH 7-31 – 7-32, PTS IX A  *Min Sink SpeedGFH 3-8, 7-36 – 7-37, PTS V A  POST-SOLO ACADEMIC	*Steep TurnsGFH 7-31, PTS VII C  *ThermallingGFH 10-2 – 10-10, PTS VI A  *Tow Rope/Ring InspectionGFH 12-4
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POST-SOLO FLIGHT MANEU  Accuracy Landings	Ridge SoaringGFH 10-9 thru 10-11/PTS VI B Speed to FlyGFH 7-37 – 7-38 SpinsGFH 3-17 – 3-19 Unassisted TakeoffGFH 7-6

#### **EMERGENCIES**

*Aerotow EmergenciesGFH 8-8 – 8-13		Off Field Landing	.CFI-G
*Canopy MalfunctionsGFH 8-21 – 8-22		Off Field LandingGFH 8-18	
Canopy FoggedCFI-G		Oxygen Emergencies	
Communication (Distress)AIM 6-3-1		Oxygen System MalfunctionsGFH 8-25	, 8-30
Comm Failure VFRAIM 4-2-13, 6-4-1c.2		Parachute InspectionGFI	Ⅎ 13-7
Distress ProceduresAIM 6-3-1 – 6-3-2		Parachute Procedures	.CFI-G
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Emergency AssistanceAIM 6-3-2		Pitot-Static System (Blocked)PHAK 8-10 -	
Emergency ConditionAIM 6-1-2		Release EmergenciesGFH	
Emergency DescentCFI-G		*Responsibility and AuthorityAIM	
Emer Equip & Survival GearGFH 8-28 – 8-30		Search and RescueAIM	
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*Flt Control Malf (Primary)GFH 8-22 – 8-24		SpinsGFH 3-17 – 3-19, 8-15	
*FIt Control Malf (Secondary)GFH 8-24 – 8-25		*Spiral DivesGFI	
*FIt Instrument MalfunctionsGFH 8-20 – 8-21		*Takeoff EmergenciesGFH 12-11 –	
*Glider Induced OscillationsGFH 8-6 – 8-8		*Towhook MalfunctionsGFH	
Glider ProblemGFH 12-12		Transponder Ops and Comm FailureAIM	
]*Gust Induced OscillationsGFH 8-5 – 8-6		VFR On TopGFH 9-18,	
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Air sickness, fatigue, stressPHAK 17-12 – 17-13		Middle ear and sinus problemsPHA	
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]*HypoxiaPHAK 17-3 – 17-5_[ ]Illusions in flightAIM 8-1-5		] *Wake Turb/AvoidancePHAK 14-16 – 1	14-28
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