

SUBMITTAL TO THE BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA



ITEM
3.16
(ID # 10794)

MEETING DATE:

Tuesday, October 1, 2019

FROM: SHERIFF-CORONER-PA:

SUBJECT: SHERIFF-CORONER-PA: Ratify and Approve the Five (5) Year Professional Service Agreement for Helicopter Pilot Training between the County of Riverside and Helistream Incorporated without seeking competitive bids and Authorize the Chairman of the Board to Sign the Agreement on Behalf of the County. [All Districts]; [Five Year Total Cost - \$721,000; Up to \$72,000 in Additional Compensation]; 100% General Fund

RECOMMENDED MOTION: That the Board of Supervisors:

1. Ratify and approve the Professional Service Agreement for Helicopter Pilot Training between the County of Riverside and Helistream Incorporated without seeking competitive bids for an aggregate amount of \$721,000 for five years through June 30, 2024, and authorize the Chairman of the Board to sign the Agreement on behalf of the County; and,
2. Authorize Purchasing Agent, in accordance with Ordinance 459, based on the availability of fiscal funding and as approved by County Counsel: to (a) sign amendments that exercise the options of the agreement, including modifications of the statement of work that stay within the intent of the Agreement, and (b) sign amendments to the compensation provisions that do not exceed the sum total of ten percent (10%) of the total cost of the Agreement.

ACTION:Policy

Robert Gunzel

Robert Gunzel, Assistant Sheriff

9/24/2019

MINUTES OF THE BOARD OF SUPERVISORS

On motion of Supervisor Perez, seconded by Supervisor Hewitt and duly carried, IT WAS ORDERED that the above matter is approved as recommended.

Ayes: Jeffries, Washington, Perez and Hewitt
Nays: None
Absent: Spiegel
Date: October 1, 2019
xc: Sheriff

Kecia R. Harper
Clerk of the Board

By: *Kecia R. Harper*
Deputy

**SUBMITTAL TO THE BOARD OF SUPERVISORS COUNTY OF RIVERSIDE,
STATE OF CALIFORNIA**

FINANCIAL DATA	Current Fiscal Year:	Next Fiscal Year:	Total Cost:	Ongoing Cost
COST	\$ 135,000	\$ 301,000	\$ 793,000	\$ 0
NET COUNTY COST	\$ 135,000	\$ 301,000	\$ 793,000	\$ 0
SOURCE OF FUNDS: 100% General Fund			Budget Adjustment: No	
			For Fiscal Year: 19/20 – 23/24	

C.E.O. RECOMMENDATION: Approve

Prev. Agn. Ref.: 3-66, 4-22-14

BR# 20-029

BACKGROUND:

Summary

In the mid-1990s, the Riverside County Sheriff's Department Aviation Unit's air fleet consisted of McDonald Douglas (MD) 500 aircraft. At that time, Western Helicopter Operations (Rialto, California) specialized in training pilots in the MD 500 and the Sheriff's Department contracted with them to train their pilots. Since then, the Sheriff's Department has transitioned to American Eurocopter AS350B3, now Airbus H125 aircraft. The MD 500 is no longer in the fleet. The Aviation Unit now requires specialized training in the Eurocopter and Airbus helicopters and Western Helicopter Operations is not equipped to meet that training need.

The Riverside County Sheriff's Department Aviation Unit's fleet currently consists of five Airbus H125 helicopters. The department also anticipates acquiring an Airbus H145 helicopter in FY19-20. The helicopters are utilized for day and nighttime patrol, specialized support flights, and search and rescue operations.

The Aviation Unit needs to utilize Helistream, Inc. (Costa Mesa, California) services due to their updated training methods and the close proximity of their training venue (Orange County). Helistream, Inc. would train Sheriff's pilots in H125 and H145 aircraft using the latest training and flight methods. The Aviation Unit currently has seven commercially rated helicopter pilots and one deputy sheriff in initial flight training at Helistream Inc.

Impact on Citizens and Businesses

County citizens and businesses benefit from the skills of well-trained helicopter pilots providing aerial law enforcement support and search and rescue missions. Of further benefit, is the Department's access to the local training center that provides lower-cost training in the same aircraft that Department pilots fly daily.

Contract History and Price Reasonableness

In 2017 County Purchasing and Fleet Services, on behalf of the Sheriff's Department released a Request for Quotation SHARC-327 for Helicopter Pilot Recurrency Training by advertising on

**SUBMITTAL TO THE BOARD OF SUPERVISORS COUNTY OF RIVERSIDE,
STATE OF CALIFORNIA**

the County's Internet. The RFQ was downloaded by eight (8) vendors and only Helistream submitted their pricing. The Department requests to purchase additional helicopter training services to accommodate an increase in operational needs as well as the acquisition of the new H145 Helicopter.

Pricing related to initial, recurrency, and instrument training per pilot can be found in Exhibit F of the Professional Service Agreement.

Helistream Inc. offers discounts on ground school for class sizes of more than two pilots. Helistream will only charge for two pilots, the other six pilots are free if they attend training on the same day. The Aviation unit plans to send eight pilots to ground school on the same day to take advantage of the discount. The Department anticipates flight instruction training to occur every four months and ground school to occur once a year.

The Department is also requesting for a 10% contingency of the total contract amount, which is \$72,000, to allow for additional service and support cost. The 5-year amount with the 10% contingency is \$793,000


ATTACHMENTS:

Approved Single Source Justification

Helistream Inc. Professional Services Agreement – 3 copies


Teresa Summers, Director of Purchasing 9/19/2019


Ryan Carter, Principal Management Analyst 9/24/2019


Gregory V. Prietas, Director County Counsel 9/23/2019



Riverside County Sheriff's Department
Chad Bianco, Sheriff-Coroner

4095 Lemon Street • Riverside • California • 92501
www.riversidesheriff.org

Date: July 10, 2019
From: Will Taylor, Director of Administration
To: Board of Supervisors
Via: Sgt. Curtis Bright, Sheriff's Department, 951-925-9591
Subject: Single Source Procurement; Request for Helistream Incorporated helicopter pilot training

The below information is provided in support of my Department requesting approval for a sole or single source. *(Outside of a duly declared emergency, the time to develop a statement of work or specifications is not in itself justification for sole or single source.)*

1. **Supplier being requested:** Helistream Incorporated

2. **Vendor ID:** 84895

3. **Single Source** **Sole Source**
(Single Source - is a purchase of a commodity or service without obtaining competitive bids although more than one source is available)

(Sole Source - is a purchase of a commodity or service that is proprietary, or no other vendor is qualified or willing to meet the county specified requirements)

4. **Have you previously requested and received approval for a sole or single source request for this vendor for your department?** *(If yes, please provide the approved sole or single source number).*

Yes **No**

SSJ #14-365 approved 2-24-14

4a. **Was the request approved for a different project?**

Yes **No**

5. **Supply/Service being requested:**

(If this request is for professional services, attach the service agreement to this sole source request. The Purchasing Agent, or designee, is the signing authority for agreements unless the service is exempted by Ordinance 459, Board delegated authority or by State law. All insurance requirements must be met prior to work commencement. See the Risk Management website for vendor insurance requirements.)

Requesting for Helicopter Pilot Training for the Aviation Unit.

6. Unique features of the supply/service being requested from this supplier. (If this sole source request is due to proprietary software or machinery, or hardware, provide a supporting letter from the manufacturer. If this is a single source request provide an explanation of how this provides the best value for the County by selecting this vendor.)

Since 2001, Sheriff's Aviation has been using five Airbus Helicopter H125 helicopters for their primary operations. Helistream Inc., located in Costa Mesa, California, is the only facility in the southwest United States that offers all the required training for pilots in the aforementioned helicopters. The department also anticipates acquiring an Airbus H145 helicopter in FY19-20. The only vendor within the western United States that offers pilot recurrency training for the H145 helicopters is Helistream. Helistream Inc. specializes in training law enforcement agencies in air operations. Government entities such as the Drug Enforcement Agency, San Jose Police Department, Sacramento Sheriff's Department, San Bernardino Sheriff's Department, Fresno Police Department, Huntington Beach Police Department, and the California Highway Patrol all attend training at Helistream Inc. Below are services the department needs in which the vendor can fulfill.

Vendor Features:

- Have access to Airbus H125 and H145 helicopters.
- Have Certified Flight Instructors in rotary aircraft.
- Have Certified Flight Instrument Instructors.
- Have Certified Night Vision Goggle Instructors.
- Provide high altitude training.
- Provide turbine transition training.
- Provide pilot training in all areas of rotary aircraft operations (private, commercial, certified flight instructor, instrument).
- Provide FAA required semi-annual flight training.
- The location of the training should be convenient and close to our base of operations.
- Have flexibility in the training needs of the Department.
- Provide recurrency training (to include full touch down emergency procedures) based upon the needs of the Department, but no less than two times a year.
- Provide recurrency night vision goggle training to include full touch down emergency procedures.
- Provide initial pilot training
- Provide helicopter instrument certification

7. Reasons why my department requires these unique features from the vendor and what benefit will accrue to the county: The Federal Aviation Administration requires special training to maintain compliance for commercial pilot rating and specialized certificates. Using Helistream Inc. will allow the Department to completely train our pilots in the same type/model aircraft we currently operate. By training locally, the Department will save the cost of travel, lodging, and per diem expenses, which would be incurred for training at a facility out of state.

8. Period of Performance: From: 07/01/2019 to 06/30/2024
(total number of years)

Is this an annually renewable contract? No Yes
Is this a fixed-term agreement: No Yes

(A fixed-term agreement is set for a specific amount of time; it is not renewed annually. Ensure multi-year fixed-term agreements include a cancellation, non-appropriation of funds, or refund clause. If there is no clause(s) to that effect, then the agreement must be submitted to the Board for approval. No exemptions shall apply.)

9. Identify all costs for this requested purchase. In addition, please include any single or sole source amounts previously approved and related to this project and vendor in the section designated below for current and future fiscal years. You do not need to include previous fiscal year amounts. If approval is for multiple years, ongoing costs must be identified below. If annual increases apply to ongoing costs such as CPI or other contract increases, provide the estimated annual cost for each consecutive year. If the annual increase may exceed the Purchasing Agent's authority, Board approval must be obtained. (Note: ongoing costs may include but are not limited to subscriptions, licenses, maintenance, support, etc.)

Description:	FY19/20	FY20/21	FY21/22	FY22/23	FY23/24	
One-time Costs:						
Ongoing Costs Initial & Instrument Training: Aggregate	\$75,000	\$206,000				\$281,000
Ongoing Costs Recurrency Training: Aggregate	\$60,000	\$95,000	\$95,000	\$95,000	\$95,000	\$440,000
Pilot training						
Total Costs	\$135,000	\$301,000	\$95,000	\$95,000	\$95,000	\$721,000

Note: Insert additional rows as needed

10. Price Reasonableness: (Explain why this price is reasonable or cost effective – were you provided government discounted pricing? Is this rate/fee comparable to industry standards?)

In 2017 the Sheriff Department released a Request for Quotation SHARC-327 for Helicopter Pilot Recurrency Training by advertising on the County's Internet. The RFQ was downloaded by eight (8) vendors and only Helistream submitted their pricing. The Department requests to purchase additional helicopter training courses to accommodate increase operational needs and the acquisition of a new H145 Helicopter. The Department is requesting to an aggregate amount of \$721,000 for five (5) years through June 30, 2024.

Helistream Inc. offers discounts on ground school for class sizes of more than two pilots. The vendor only charges up to four pilots per class and any additional pilots are free to attend the class. The Department plans to send all eight pilots to ground school on the same day to take advantage of this discount. Helistream Inc. completes this training over the course of two days, which includes a full day of ground school and one and a half hour of flight instruction. Cost breakdown per pilot is provided below.

Recurrency Training Item Description	QTY	Training Hours	Cost per Pilot	Notes
Recurrency Training - Flight School	1	3	\$ 5,700.00	3 hours of flight instruction (\$1,900/hr x 3=\$5,700 Sheriff has option to do 1.5hrs)
Recurrency Training - Ground School	1	8	\$ 340.00	8 hours of ground instruction (\$170/hr x 8hrs x 2pilots = \$2,720/8 = \$340) Vendor only charges for two pilots
Confined Area Training - Mountain School (Flight School)	1	5.5	\$ 10,450.00	5.5 hours (\$1,900 x 5.5hrs)
Confined Area Training - Mountain School (Ground School)	1	2.5	\$ 425.00	2.5 hours (\$170 x 2.5hrs)

Initial & Instrument Training Item Description	QTY	Training Hours	Cost per Pilot	Notes
Private Pilot Rotorcraft Helicopter Certification Course in R22 - Ground School	1	50	\$3,000.00	Ground, \$60/hr x 50 hrs = \$3,000
Private Pilot Rotorcraft Helicopter Certification Course in R22 - Flight School	1	55	\$15,900.00	Dual, \$300/hr x 45 hrs = \$13,500 Solo, \$240/hr x 10 hrs = \$2,400
Private Pilot Rotorcraft Helicopter Certification Course in R22 - Material & Fees	1	-	\$1,550.00	Books & Study Material = \$375 Written Exam Fee = \$165 Check Ride Fee = \$650 1.5 hrs Aircraft Rental = \$360
Commercial Pilot Certification Course in R22 - Ground School	1	40	\$2,400.00	Ground, \$60/hr x 40 hrs = \$2,400
Commercial Pilot Certification Course in R22- Flight School	1	60	\$17,400.00	Dual, \$300/hr x 50 hrs = \$15,000 Solo, \$240/hr x 10 hrs = \$2,400
Commercial Pilot Certification Course in R22- Material & Fees	1	-	\$1,175.00	Written Exam Fee = \$165 Check Ride Fee = \$650 1.5 hrs Aircraft Rental = \$360
Helicopter Instrument Rating in R22 - Ground School	1	40	\$2,800.00	Ground, \$70/hr x 40 hrs = \$2,800
Helicopter Instrument Rating in R22 - Flight School	1	45	\$15,075.00	Dual IFR, \$335/hr x 45 hrs = \$15,075
Helicopter Instrument Rating in R22 - Material & Fees	1	-	\$1,342.50	Books & Study Material = \$130 Written Exam Fee = \$165 Check Ride Fee = \$650 1.5 hrs Aircraft Rental = \$397.50
Helicopter Instrument Rating in R44 - Ground School	1	40	\$2,800.00	Ground, \$70/hr x 40 hrs = \$2,800
Helicopter Instrument Rating in R44 - Flight School	1	45	\$25,200.00	Dual IFR, \$560/hr x 45 hrs = \$25,200
Helicopter Instrument Rating in R44 - Material & Fees	1	-	\$1,785.00	Books & Study Material = \$130 Written Exam Fee = \$165 Check Ride Fee = \$650 1.5 hrs Aircraft Rental = \$840
Pilot Transition Training AS 350- Ground Instruction	1	12	\$2,160.00	Ground, \$180/hr x 12 = \$2,160
Pilot Transition Training AS 350 - Flight Instruction	1	5	\$9,500.00	Dual, \$1,900/hr x 5 hrs = \$9,500

11. Projected Board of Supervisor Date (if applicable): _____
(Draft Form 11s, service agreement and or quotes must accompany the sole source request for Purchasing Agent approval.)

[Signature] Chief Deputy Signature (or designee) ROBERT KUNZEL Print Name 08/13/2019 Date

[Signature] Assistant Sheriff Signature (or designee) ROBERT KUNZEL Print Name 08/13/2019 Date

[Signature] Department Head Signature (or designee) [Signature] Print Name 8/13/19 Date

The section below is to be completed by the Purchasing Agent or designee.

Purchasing Department Comments:

Approve Approve with Condition/s Disapprove

Condition/s: _____

Not to exceed:

- One-time \$ _____
- Annual Amount \$ _____ / per fiscal year through _____ (date)

(If Annual Amount Varies each FY)
FY 19/20: \$ 135,000
FY 20/21: \$ 301,000
FY 21/22: \$ 95,000
FY 22/23: \$ 95,000
FY 23/24: \$ 85,000

[Signature] Purchasing Agent 8/15/19 Date 20-039 Approval Number
(Reference on Purchasing Documents)

PROFESSIONAL SERVICE AGREEMENT

for

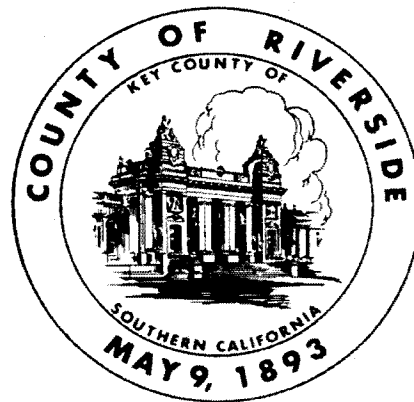
HELICOPTER PILOT TRAINING

between

COUNTY OF RIVERSIDE

and

HELISTREAM INCORPORATED



OCT 01 2019

3.16

TABLE OF CONTENTS

<u>SECTION HEADING</u>	<u>PAGE NUMBER</u>
1. Description of Services	3
2. Period of Performance	3
3. Compensation	3
4. Alteration or Changes to the Agreement	4
5. Termination.....	5
6. Ownership/Use of Contract Materials and Products	6
7. Conduct of Contractor.....	6
8. Inspection of Service: Quality Control/Assurance	6
9. Independent Contractor/Employment Eligibility	7
10. Subcontract for Work or Services	8
11. Disputes	8
12. Licensing and Permits	9
13. Use by Other Political Entities.....	9
14. Non-Discrimination	9
15. Records and Documents	9
16. Confidentiality	10
17. Administration/Contract Liaison	10
18. Notices	10
19. Force Majeure	11
20. EDD Reporting Requirements	11
21. Hold Harmless/Indemnification.....	11
22. Insurance	12
23. General	14
Exhibit A-Scope of Service Pilot Refresher Training Course	17
Exhibit B-Scope of Service Private Pilot Rotorcraft.....	34
Exhibit C-Scope of Service Commercial Pilot Training Course	38
Exhibit D-Scope of Service Helicopter Instrument Training.....	42
Exhibit E-Scope of Service Pilot Transition Training	46
Exhibit F-Payment Provisions	50

This Agreement, made and entered into this 1st day of July, 2019, by and between HELISTREAM INCORPORATED, (herein referred to as "CONTRACTOR"), and the COUNTY OF RIVERSIDE, a political subdivision of the State of California, (herein referred to as "COUNTY"). The parties agree as follows:

1. Description of Services

1.1 CONTRACTOR shall provide all services as outlined and specified in Exhibits A through E (Scope of Services), at the prices stated in Exhibit F, Payment Provisions, to the Agreement.

1.2 CONTRACTOR represents that it has the skills, experience, and knowledge necessary to perform under this Agreement and the COUNTY relies upon this representation. CONTRACTOR shall perform to the satisfaction of the COUNTY and in conformance to and consistent with the highest standards of firms/professionals in the same discipline in the State of California.

1.3 CONTRACTOR affirms this it is fully apprised of all of the work to be performed under this Agreement; and the CONTRACTOR agrees it can properly perform this work at the prices stated in Exhibit B. CONTRACTOR is not to perform services or provide products outside of the Agreement.

1.4 Acceptance by the COUNTY of the CONTRACTOR's performance under this Agreement does not operate as a release of CONTRACTOR's responsibility for full compliance with the terms of this Agreement.

2. Period of Performance

2.1 This Agreement shall be effective July 1, 2019 and continues in effect through June 30, 2024, unless terminated earlier. CONTRACTOR shall commence performance upon signature of this Agreement by both parties and shall diligently and continuously perform thereafter. The Riverside County Board of Supervisors is the only authority that may obligate the County for a non-cancelable multi-year agreement.

3. Compensation

3.1 The COUNTY shall pay the CONTRACTOR for services performed, products provided and expenses incurred in accordance with the terms of Exhibit B, Payment Provisions. Maximum payments by COUNTY to CONTRACTOR under this Agreement shall not exceed a total aggregate amount of \$721,000 for the entire five (5) year term, including all expenses. The COUNTY is not responsible for any fees or costs incurred above or beyond the contracted amount and shall have no obligation to purchase any specified amount of services or products. Unless otherwise specifically stated in Exhibit B, COUNTY shall not be responsible for payment of any of CONTRACTOR's expenses related to this Agreement.

3.2 No price increases will be permitted during the first year of this Agreement (If applicable). All price decreases (for example, if CONTRACTOR offers lower prices to another governmental entity) will automatically be extended to the COUNTY. The COUNTY requires written proof satisfactory to COUNTY of cost increases prior to any approved price adjustment. After the first year of the award, a minimum of 30-days advance notice in writing is

required to be considered and approved by COUNTY. No retroactive price adjustments will be considered. Any price increases must be stated in a written amendment to this Agreement. The net dollar amount of profit will remain firm during the period of the Agreement. Annual increases shall not exceed the Consumer Price Index- All Consumers, All Items - Greater Los Angeles, Riverside and Orange County areas and be subject to satisfactory performance review by the COUNTY and approved (if needed) for budget funding by the Board of Supervisors. 3.3

CONTRACTOR shall be paid only in accordance with an invoice submitted to COUNTY by CONTRACTOR within fifteen (15) days from the last day of each calendar month, and COUNTY shall pay the invoice within thirty (30) working days from the date of receipt of the invoice. Payment shall be made to CONTRACTOR only after services have been rendered or delivery of materials or products, and acceptance has been made by COUNTY. Prepare invoices in duplicate. For this Agreement, send the original and duplicate copies of invoices to:

RIVERSIDE SHERIFF'S AVIATION UNIT

4850 West Stetson Avenue

Hemet, CA 92545

- a) Each invoice shall contain a minimum of the following information: invoice number and date; remittance address; bill-to and ship-to addresses of ordering department/division; Agreement number SHARC-90553-001-06/22; quantities; item descriptions, unit prices, extensions, sales/use tax if applicable, and an invoice total.
- b) Invoices shall be rendered monthly in arrears.

3.4 The COUNTY obligation for payment of this Agreement beyond the current fiscal year end is contingent upon and limited by the availability of COUNTY funding from which payment can be made, and invoices shall be rendered "monthly" in arrears. In the State of California, Government agencies are not allowed to pay excess interest and late charges, per Government Codes, Section 926.10. No legal liability on the part of the COUNTY shall arise for payment beyond June 30 of each calendar year unless funds are made available for such payment. In the event that such funds are not forthcoming for any reason, COUNTY shall immediately notify CONTRACTOR in writing; and this Agreement shall be deemed terminated, have no further force, and effect.

4. Alteration or Changes to the Agreement

4.1 The Board of Supervisors and the COUNTY Purchasing Agent and/or his designee is the only authorized COUNTY representatives who may at any time, by written order, alter this Agreement. If any such alteration causes an increase or decrease in the cost of, or the time required for the performance under this Agreement, an equitable adjustment shall be made in the Agreement price or delivery schedule, or both, and the Agreement shall be modified by written amendment accordingly.

4.2 Any claim by the CONTRACTOR for additional payment related to this Agreement shall be made in writing by the CONTRACTOR within 30 days of when the CONTRACTOR has or should have notice of any actual or claimed change in the work, which results in additional and unanticipated cost to the CONTRACTOR. If the COUNTY Purchasing Agent decides that the facts provide sufficient justification, he may authorize additional payment to the CONTRACTOR pursuant to the claim. Nothing in this section shall excuse the CONTRACTOR from proceeding with performance of the Agreement even if there has been a change.

5. Termination

5.1. COUNTY may terminate this Agreement without cause upon 30 days written notice served upon the CONTRACTOR stating the extent and effective date of termination.

5.2 COUNTY may, upon five (5) days written notice terminate this Agreement for CONTRACTOR's default, if CONTRACTOR refuses or fails to comply with the terms of this Agreement or fails to make progress that may endanger performance and does not immediately cure such failure. In the event of such termination, the COUNTY may proceed with the work in any manner deemed proper by COUNTY.

5.3 After receipt of the notice of termination, CONTRACTOR shall:

- (a) Stop all work under this Agreement on the date specified in the notice of termination; and
- (b) Transfer to COUNTY and deliver in the manner as directed by COUNTY any materials, reports or other products, which, if the Agreement had been completed or continued, would have been required to be furnished to COUNTY.

5.4 After termination, COUNTY shall make payment only for CONTRACTOR's performance up to the date of termination in accordance with this Agreement.

5.5 CONTRACTOR's rights under this Agreement shall terminate (except for fees accrued prior to the date of termination) upon dishonesty or a willful or material breach of this Agreement by CONTRACTOR; or in the event of CONTRACTOR's unwillingness or inability for any reason whatsoever to perform the terms of this Agreement. In such event, CONTRACTOR shall not be entitled to any further compensation under this Agreement.

5.6 If the Agreement is federally or State funded, CONTRACTOR cannot be debarred from the System for Award Management (SAM). CONTRACTOR must notify the COUNTY immediately of a debarment. Reference: System for Award Management (SAM) at <https://www.sam.gov> for Central Contractor Registry (CCR), Federal Agency Registration (Fedreg), Online Representations and Certifications Application, and Excluded Parties List System (EPLS)). Excluded Parties Listing System (EPLS) (<http://www.epls.gov>) (Executive Order 12549, 7 CFR Part 3017, 45 CFR Part 76, and 44 CFR Part 17). The System for Award

Management (SAM) is the Official U.S. Government system that consolidated the capabilities of CCR/FedReg, ORCA, and EPLS.

5.7 The rights and remedies of COUNTY provided in this section shall not be exclusive and are in addition to any other rights and remedies provided by law or this Agreement.

6. Ownership/Use of Contract Materials and Products

The CONTRACTOR agrees that all materials, reports or products in any form, including electronic, created by CONTRACTOR for which CONTRACTOR has been compensated by COUNTY pursuant to this Agreement shall be the sole property of the COUNTY. The material, reports or products may be used by the COUNTY for any purpose that the COUNTY deems to be appropriate, including, but not limit to, duplication and/or distribution within the COUNTY or to third parties. CONTRACTOR agrees not to release or circulate in whole or part such materials, reports, or products without prior written authorization of the COUNTY.

7. Conduct of Contractor

7.1 The CONTRACTOR covenants that it presently has no interest, including, but not limited to, other projects or contracts, and shall not acquire any such interest, direct or indirect, which would conflict in any manner or degree with CONTRACTOR's performance under this Agreement. The CONTRACTOR further covenants that no person or subcontractor having any such interest shall be employed or retained by CONTRACTOR under this Agreement. The CONTRACTOR agrees to inform the COUNTY of all the CONTRACTOR's interests, if any, which are or may be perceived as incompatible with the COUNTY's interests.

7.2 The CONTRACTOR shall not, under circumstances which could be interpreted as an attempt to influence the recipient in the conduct of his/her duties, accept any gratuity or special favor from individuals or firms with whom the CONTRACTOR is doing business or proposing to do business, in accomplishing the work under this Agreement.

7.3 The CONTRACTOR or its employees shall not offer gifts, gratuity, favors, and entertainment directly or indirectly to COUNTY employees.

8. Inspection of Service; Quality Control/Assurance

8.1 All performance (which includes services, workmanship, materials, supplies and equipment furnished or utilized in the performance of this Agreement) shall be subject to inspection and test by the COUNTY or other regulatory agencies at all times. The CONTRACTOR shall provide adequate cooperation to any inspector or other COUNTY representative to permit him/her to determine the CONTRACTOR's conformity with the terms of this Agreement. If any services performed or products provided by CONTRACTOR are not in conformance with the terms of this Agreement, the COUNTY shall have the right to require the CONTRACTOR to perform the services or provide the products in conformance with the terms of

the Agreement at no additional cost to the COUNTY. When the services to be performed or the products to be provided are of such nature that the difference cannot be corrected; the COUNTY shall have the right to: (1) require the CONTRACTOR immediately to take all necessary steps to ensure future performance in conformity with the terms of the Agreement; and/or (2) reduce the Agreement price to reflect the reduced value of the services performed or products provided. The COUNTY may also terminate this Agreement for default and charge to CONTRACTOR any costs incurred by the COUNTY because of the CONTRACTOR's failure to perform.

8.2 CONTRACTOR shall establish adequate procedures for self-monitoring and quality control and assurance to ensure proper performance under this Agreement; and shall permit a COUNTY representative or other regulatory official to monitor, assess, or evaluate CONTRACTOR's performance under this Agreement at any time, upon reasonable notice to the CONTRACTOR.

9. Independent Contractor/Employment Eligibility

9.1 The CONTRACTOR is, for purposes relating to this Agreement, an independent contractor and shall not be deemed an employee of the COUNTY. It is expressly understood and agreed that the CONTRACTOR (including its employees, agents, and subcontractors) shall in no event be entitled to any benefits to which COUNTY employees are entitled, including but not limited to overtime, any retirement benefits, worker's compensation benefits, and injury leave or other leave benefits. There shall be no employer-employee relationship between the parties; and CONTRACTOR shall hold COUNTY harmless from any and all claims that may be made against COUNTY based upon any contention by a third party that an employer-employee relationship exists by reason of this Agreement. It is further understood and agreed by the parties that CONTRACTOR in the performance of this Agreement is subject to the control or direction of COUNTY merely as to the results to be accomplished and not as to the means and methods for accomplishing the results.

9.2 CONTRACTOR warrants that it shall make its best effort to fully comply with all federal and state statutes and regulations regarding the employment of aliens and others and to ensure that employees performing work under this Agreement meet the citizenship or alien status requirement set forth in federal statutes and regulations. CONTRACTOR shall obtain, from all employees performing work hereunder, all verification and other documentation of employment eligibility status required by federal or state statutes and regulations including, but not limited to, the Immigration Reform and Control Act of 1986, 8 U.S.C. §1324 et seq., as they currently exist and as they may be hereafter amended. CONTRACTOR shall retain all such documentation for all covered employees, for the period prescribed by the law.

9.3 Ineligible Person shall be any individual or entity who: Is currently excluded, suspended, debarred or otherwise ineligible to participate in the federal health care programs; or has been convicted of a

criminal offense related to the provision of health care items or services and has not been reinstated in the federal health care programs after a period of exclusion, suspension, debarment, or ineligibility.

9.4 CONTRACTOR shall screen prospective Covered Individuals prior to hire or engagement. CONTRACTOR shall not hire or engage any Ineligible Person to provide services directly relative to this Agreement. CONTRACTOR shall screen all current Covered Individuals within sixty (60) days of execution of this Agreement to ensure that they have not become Ineligible Persons unless CONTRACTOR has performed such screening on same Covered Individuals under a separate agreement with COUNTY within the past six (6) months. Covered Individuals shall be required to disclose to CONTRACTOR immediately any debarment, exclusion or other event that makes the Covered Individual an Ineligible Person. CONTRACTOR shall notify COUNTY within five (5) business days after it becomes aware if a Covered Individual providing services directly relative to this Agreement becomes debarred, excluded or otherwise becomes an Ineligible Person.

9.5 CONTRACTOR acknowledges that Ineligible Persons are precluded from providing federal and state funded health care services by contract with COUNTY in the event that they are currently sanctioned or excluded by a federal or state law enforcement regulatory or licensing agency. If CONTRACTOR becomes aware that a Covered Individual has become an Ineligible Person, CONTRACTOR shall remove such individual from responsibility for, or involvement with, COUNTY business operations related to this Agreement.

9.6 CONTRACTOR shall notify COUNTY within five (5) business days if a Covered Individual or entity is currently excluded, suspended or debarred, or is identified as such after being sanction screened. Such individual or entity shall be promptly removed from participating in any activity associated with this Agreement.

10. Subcontract for Work or Services

No contract shall be made by the CONTRACTOR with any other party for furnishing any of the work or services under this Agreement without the prior written approval of the COUNTY; but this provision shall not require the approval of contracts of employment between the CONTRACTOR and personnel assigned under this Agreement, or for parties named in the proposal and agreed to under this Agreement.

11. Disputes

11.1 The parties shall attempt to resolve any disputes amicably at the working level. If that is not successful, the dispute shall be referred to the senior management of the parties. Any dispute relating to this Agreement, which is not resolved by the parties, shall be decided by the COUNTY's Purchasing Department's Compliance Contract Officer who shall furnish the decision in writing. The decision of the COUNTY's Compliance Contract Officer shall be final and conclusive unless determined by a court of competent

jurisdiction to have been fraudulent, capricious, arbitrary, or so grossly erroneous to imply bad faith. The CONTRACTOR shall proceed diligently with the performance of this Agreement pending the resolution of a dispute.

11.2 Prior to the filing of any legal action related to this Agreement, the parties shall be obligated to attend a mediation session in Riverside County before a neutral third-party mediator. A second mediation session shall be required if the first session is not successful. The parties shall share the cost of the mediations.

12. Licensing and Permits

CONTRACTOR shall comply with all State or other licensing requirements, including but not limited to the provisions of Chapter 9 of Division 3 of the Business and Professions Code. All licensing requirements shall be met at the time proposals are submitted to the COUNTY. CONTRACTOR warrants that it has all necessary permits, approvals, certificates, waivers and exemptions necessary for performance of this Agreement as required by the laws and regulations of the United States, the State of California, the County of Riverside and all other governmental agencies with jurisdiction and shall maintain these throughout the term of this Agreement.

13. Use By Other Political Entities

The CONTRACTOR agrees to extend the same pricing, terms, and conditions as stated in this Agreement to each and every political entity, special district, and related non-profit entity in Riverside County. It is understood that other entities shall make purchases in their own name, make direct payment, and be liable directly to the CONTRACTOR; and COUNTY shall in no way be responsible to CONTRACTOR for other entities' purchases.

14. Non-Discrimination

CONTRACTOR shall not discriminate in the provision of services, allocation of benefits, accommodation in facilities, or employment of personnel on the basis of ethnic group identification, race, religious creed, color, national origin, ancestry, physical handicap, medical condition, marital status or sex in the performance of this Agreement; and, to the extent they shall be found to be applicable hereto, shall comply with the provisions of the California Fair Employment and Housing Act (Gov. Code 12900 et. seq), the Federal Civil Rights Act of 1964 (P.L. 88-352), the Americans with Disabilities Act of 1990 (42 U.S.C. S1210 et seq.) and all other applicable laws or regulations.

15. Records and Documents

CONTRACTOR shall make available, upon written request by any duly authorized Federal, State, or COUNTY agency, a copy of this Agreement and such books, documents and records as are necessary to certify the nature and extent of the CONTRACTOR's costs related to this Agreement. All such books, documents and records shall be maintained by CONTRACTOR for at least five years following termination of this Agreement

and be available for audit by the COUNTY. CONTRACTOR shall provide to the COUNTY reports and information related to this Agreement as requested by COUNTY.

16. Confidentiality

16.1 The CONTRACTOR shall not use for personal gain or make other improper use of privileged or confidential information which is acquired in connection with this Agreement. The term “privileged or confidential information” includes but is not limited to: unpublished or sensitive technological or scientific information; medical, personnel, or security records; anticipated material requirements or pricing/purchasing actions; COUNTY information or data which is not subject to public disclosure; COUNTY operational procedures; and knowledge of selection of contractors, subcontractors or suppliers in advance of official announcement.

16.2 The CONTRACTOR shall protect from unauthorized disclosure names and other identifying information concerning persons receiving services pursuant to this Agreement, except for general statistical information not identifying any person. The CONTRACTOR shall not use such information for any purpose other than carrying out the CONTRACTOR’s obligations under this Agreement. The CONTRACTOR shall promptly transmit to the COUNTY all third-party requests for disclosure of such information. The CONTRACTOR shall not disclose, except as otherwise specifically permitted by this Agreement or authorized in advance in writing by the COUNTY, any such information to anyone other than the COUNTY. For purposes of this paragraph, identity shall include, but not be limited to, name, identifying number, symbol, or other identifying particulars assigned to the individual, such as finger or voice print or a photograph.

17. Administration/Contract Liaison

The Sheriff, or designee, shall administer this Agreement on behalf of the COUNTY. The Purchasing Department is to serve as the liaison with CONTRACTOR in connection with this Agreement.

18. Notices

All correspondence and notices required or contemplated by this Agreement shall be delivered to the respective parties at the addresses set forth below and are deemed submitted two days after their deposit in the United States mail, postage prepaid:

COUNTY OF RIVERSIDE

RIVERSIDE COUNTY SHERIFF’S DEPT.
4095 Lemon Street
Riverside, CA 92501
Attn. Purchasing Unit
(951) 925-9591

CONTRACTOR

HELISTREAM INCORPORATED
3000 Airway Avenue Suite 350
Costa Mesa, CA 92626
(714) 622-3163

19. Force Majeure

If either party is unable to comply with any provision of this Agreement due to causes beyond its reasonable control, and which could not have been reasonably anticipated, such as acts of God, acts of war, civil disorders, or other similar acts, such party shall not be held liable for such failure to comply.

20. EDD Reporting Requirements

In order to comply with child support enforcement requirements of the State of California, the COUNTY may be required to submit a Report of Independent Contractor(s) form **DE 542** to the Employment Development Department. The CONTRACTOR agrees to furnish the required data and certifications to the COUNTY within 10 days of notification of award of Agreement when required by the EDD. This data will be transmitted to governmental agencies charged with the establishment and enforcement of child support orders. Failure of the CONTRACTOR to timely submit the data and/or certificates required may result in the contract being awarded to another contractor. In the event a contract has been issued, failure of the CONTRACTOR to comply with all federal and state reporting requirements for child support enforcement or to comply with all lawfully served Wage and Earnings Assignments Orders and Notices of Assignment shall constitute a material breach of Agreement. If CONTRACTOR has any questions concerning this reporting requirement, please call (916) 657-0529. CONTRACTOR should also contact its local Employment Tax Customer Service Office listed in the telephone directory in the State Government section under "Employment Development Department" or access their Internet site at www.edd.ca.gov.

21. Hold Harmless/Indemnification

21.1 CONTRACTOR shall indemnify and hold harmless the County of Riverside, its Agencies, Districts, Special Districts and Departments, their respective directors, officers, Board of Supervisors, elected and appointed officials, employees, agents and representatives (individually and collectively hereinafter referred to as Indemnitees) from any liability, action, claim or damage whatsoever, based or asserted upon any services of CONTRACTOR, its officers, employees, subcontractors, agents or representatives arising out of or in any way relating to this Agreement, including but not limited to property damage, bodily injury, or death or any other element of any kind or nature. CONTRACTOR shall defend the Indemnitees at its sole expense including all costs and fees (including, but not limited, to attorney fees, cost of investigation, defense and settlements or awards) in any claim or action based upon such acts, omissions or services.

21.2 With respect to any action or claim subject to indemnification herein by CONTRACTOR, CONTRACTOR shall, at their sole cost, have the right to use counsel of their own choice and shall have the right to adjust, settle, or compromise any such action or claim without the prior consent of COUNTY; provided, however, that any such adjustment, settlement or compromise in no manner whatsoever limits or circumscribes CONTRACTOR indemnification to Indemnitees as set forth herein.

21.3 CONTRACTOR'S obligation hereunder shall be satisfied when CONTRACTOR has provided to COUNTY the appropriate form of dismissal relieving COUNTY from any liability for the action or claim involved.

21.4 The specified insurance limits required in this Agreement shall in no way limit or circumscribe CONTRACTOR'S obligations to indemnify and hold harmless the Indemnitees herein from third party claims.

22. Insurance

22.1 Without limiting or diminishing the CONTRACTOR'S obligation to indemnify or hold the COUNTY harmless, CONTRACTOR shall procure and maintain or cause to be maintained, at its sole cost and expense, the following insurance coverage's during the term of this Agreement. As respects to the insurance section only, the COUNTY herein refers to the County of Riverside, its Agencies, Districts, Special Districts, and Departments, their respective directors, officers, Board of Supervisors, employees, elected or appointed officials, agents, or representatives as Additional Insureds.

A. Workers' Compensation:

If the CONTRACTOR has employees as defined by the State of California, the CONTRACTOR shall maintain statutory Workers' Compensation Insurance (Coverage A) as prescribed by the laws of the State of California. Policy shall include Employers' Liability (Coverage B) including Occupational Disease with limits not less than \$1,000,000 per person per accident. The policy shall be endorsed to waive subrogation in favor of The County of Riverside.

B. Commercial General Liability:

Commercial General Liability insurance coverage, including but not limited to, premises liability, unmodified contractual liability, products and completed operations liability, personal and advertising injury, and cross liability coverage, covering claims which may arise from or out of CONTRACTOR'S performance of its obligations hereunder. Policy shall name the COUNTY as Additional Insured. Policy's limit of liability shall not be less than \$1,000,000 per occurrence combined single limit. If such insurance contains a general aggregate limit, it shall apply separately to this agreement or be no less than two (2) times the occurrence limit.

C. Vehicle Liability:

If vehicles or mobile equipment is used in the performance of the obligations under this Agreement, then CONTRACTOR shall maintain liability insurance for all owned, non-owned, or hired vehicles so used in an amount not less than \$1,000,000 per occurrence combined single limit. If such insurance contains a general aggregate limit, it shall apply separately to this agreement or be no less than two (2) times the occurrence limit. Policy shall name the COUNTY as Additional Insureds.

D. Professional Liability Contractor shall maintain Professional Liability Insurance providing coverage for the Contractor's performance of work included within this Agreement, with a limit of liability of not less

than \$1,000,000 per occurrence and \$2,000,000 annual aggregate. If Contractor's Professional Liability Insurance is written on a claims made basis rather than an occurrence basis, such insurance shall continue through the term of this Agreement and CONTRACTOR shall purchase at his sole expense either 1) an Extended Reporting Endorsement (also, known as Tail Coverage); or 2) Prior Dates Coverage from new insurer with a retroactive date back to the date of, or prior to, the inception of this Agreement; or 3) demonstrate through Certificates of Insurance that CONTRACTOR has Maintained continuous coverage with the same or original insurer. Coverage provided under items; 1), 2), or 3) will continue as long as the law allows.

E. General Insurance Provisions - All lines:

1) Any insurance carrier providing insurance coverage hereunder shall be admitted to the State of California and have an A M BEST rating of not less than A: VIII (A:8) unless such requirements are waived, in writing, by the County Risk Manager. If the County's Risk Manager waives a requirement for a particular insurer such waiver is only valid for that specific insurer and only for one policy term.

2) The CONTRACTOR must declare its insurance self-insured retention for each coverage required herein. If any such self-insured retention exceeds \$500,000 per occurrence each such retention shall have the prior written consent of the County Risk Manager before the commencement of operations under this Agreement. Upon notification of self-insured retention unacceptable to the COUNTY, and at the election of the County's Risk Manager, CONTRACTOR'S carriers shall either; 1) reduce or eliminate such self-insured retention as respects this Agreement with the COUNTY, or 2) procure a bond which guarantees payment of losses and related investigations, claims administration, and defense costs and expenses.

3) CONTRACTOR shall cause CONTRACTOR'S insurance carrier(s) to furnish the County of Riverside with either 1) a properly executed original Certificate(s) of Insurance and certified original copies of Endorsements effecting coverage as required herein, and 2) if requested to do so orally or in writing by the County Risk Manager, provide original Certified copies of policies including all Endorsements and all attachments thereto, showing such insurance is in full force and effect. Further, said Certificate(s) and policies of insurance shall contain the covenant of the insurance carrier(s) that thirty (30) days written notice shall be given to the County of Riverside prior to any material modification, cancellation, expiration or reduction in coverage of such insurance. In the event of a material modification, cancellation, expiration, or reduction in coverage, this Agreement shall terminate forthwith, unless the County of Riverside receives, prior to such effective date, another properly executed original Certificate of Insurance and original copies of endorsements or certified original policies, including all endorsements and attachments thereto evidencing coverage's set forth herein and the insurance required herein is in full force and effect. CONTRACTOR shall not commence operations until the COUNTY has been furnished original Certificate (s) of Insurance and certified original copies of endorsements and if requested, certified original policies of insurance including all endorsements and

any and all other attachments as required in this Section. An individual authorized by the insurance carrier shall sign the original endorsements for each policy and the Certificate of Insurance.

4) It is understood and agreed to by the parties hereto that the CONTRACTOR'S insurance shall be construed as primary insurance, and the COUNTY'S insurance and/or deductibles and/or self-insured retention's or self-insured programs shall not be construed as contributory.

5) If, during the term of this Agreement or any extension thereof, there is a material change in the scope of services; or, there is a material change in the equipment to be used in the performance of the scope of work; or, the term of this Agreement, including any extensions thereof, exceeds five (5) years; the COUNTY reserves the right to adjust the types of insurance and the monetary limits of liability required under this Agreement, if in the County Risk Manager's reasonable judgment, the amount or type of insurance carried by the CONTRACTOR has become inadequate.

6) CONTRACTOR shall pass down the insurance obligations contained herein to all tiers of subcontractors working under this Agreement.

7) The insurance requirements contained in this Agreement may be met with a program(s) of self-insurance acceptable to the COUNTY.

8) CONTRACTOR agrees to notify COUNTY of any claim by a third party or any incident or event that may give rise to a claim arising from the performance of this Agreement.

23. General

23.1 CONTRACTOR shall not delegate or assign any interest in this Agreement, whether by operation of law or otherwise, without the prior written consent of COUNTY. Any attempt to delegate or assign any interest herein shall be deemed void and of no force or effect.

23.2 Any waiver by COUNTY of any breach of any one or more of the terms of this Agreement shall not be construed to be a waiver of any subsequent or other breach of the same or of any other term of this Agreement. Failure on the part of COUNTY to require exact, full, and complete compliance with any terms of this Agreement shall not be construed as in any manner changing the terms or preventing COUNTY from enforcement of the terms of this Agreement.

23.3 In the event the CONTRACTOR receives payment under this Agreement, which is later disallowed by COUNTY for nonconformance with the terms of the Agreement, the CONTRACTOR shall promptly refund the disallowed amount to the COUNTY on request; or at its option the COUNTY may offset the amount disallowed from any payment due to the CONTRACTOR.

23.4 CONTRACTOR shall not provide partial delivery or shipment of services or products unless specifically stated in the Agreement.

23.5 CONTRACTOR shall not provide any services or products subject to any chattel mortgage or under a conditional sales contract or other agreement by which an interest is retained by a third party. The CONTRACTOR warrants that it has good title to all materials or products used by CONTRACTOR or provided to COUNTY pursuant to this Agreement, free from all liens, claims, or encumbrances.

23.6 Nothing in this Agreement shall prohibit the COUNTY from acquiring the same type or equivalent equipment, products, materials or services from other sources, when deemed by the COUNTY to be in its best interest. The COUNTY reserves the right to purchase more or less than the quantities specified in this Agreement.

23.7 The COUNTY agrees to cooperate with the CONTRACTOR in the CONTRACTOR's performance under this Agreement, including, if stated in the Agreement, providing the CONTRACTOR with reasonable facilities and timely access to COUNTY data, information, and personnel.

23.8 CONTRACTOR shall comply with all applicable Federal, State and local laws and regulations. CONTRACTOR will comply with all applicable COUNTY policies and procedures. In the event that there is a conflict between the various laws or regulations that may apply, the CONTRACTOR shall comply with the more restrictive law or regulation.

23.9 CONTRACTOR shall comply with all air pollution control, water pollution, safety and health ordinances, statutes, or regulations, which apply to performance under this Agreement.


23.10 CONTRACTOR shall comply with all requirements of the Occupational Safety and Health Administration (OSHA) standards and codes as set forth by the U.S. Department of Labor and the State of California (Cal/OSHA).

23.11 This Agreement shall be governed by the laws of the State of California. Any legal action related to the performance or interpretation of this Agreement shall be filed only in the Superior Court of the State of California located in Riverside, California, and the parties waive any provision of law providing for a change of venue to another location. In the event any provision in this Agreement is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions will nevertheless continue in full force without being impaired or invalidated in any way.

23.12 This Agreement, including any attachments or exhibits, constitutes the entire Agreement of the parties with respect to its subject matter and supersedes all prior and contemporaneous representations, proposals, discussions and communications, whether oral or in writing. This Agreement may be changed or modified only by a written amendment signed by authorized representatives of both parties.

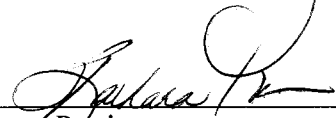
IN WITNESS WHEREOF, the Parties hereto have caused their duly authorized representatives to execute this Agreement.

COUNTY OF RIVERSIDE, a political
subdivision of the State of California

By: 
Kevin Jeffries
Chairman of the Board

Dated: OCT 01 2019

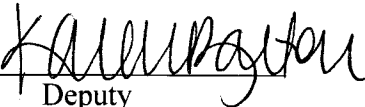
HELISTREAM INC., a California corporation

By: 
Barbara Perrin
Secretary/CFO

Dated: 8/14/19

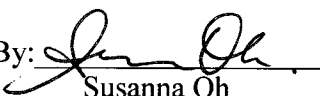
ATTEST:

Kecia R. Harper
Clerk of the Board

By: 
Deputy

APPROVED AS TO FORM:

Gregory P. Priamos
County Counsel

By: 
Susanna Oh
Deputy County Counsel

**Exhibit A
Scope of Service**

**Pilot Refresher Training Course
Airbus H125**

AIRBUS H125

This course is intended for individuals who hold a Helicopter Pilot Certificate and already have flight experience in the H125.

Training Material: Training and study material will be provided for each student.

Training Aircraft: Flight training will be conducted in the H125.

Objective: To increase the pilot's knowledge and proficiency in normal, abnormal and emergency procedures and to improve awareness of good operating practices and accident prevention.

Course Content: Classroom instruction will review the Federal Aviation Regulations, the National Airspace System, and aircraft systems operation and malfunctions as well as selected accident reports.

The flight training will include demonstration and practice in normal and simulated emergency procedures including: Power-off touch down landings, tail rotor and hydraulic malfunctions.

****Note: HeliStream, Inc. accepts no responsibility for damages incurred within the context of the Pilot Refresher Training Course. Pilot/Aircraft Owner acknowledges risk of damage and/or wear & tear associated with emergency procedures training. In the event damage or wear & tear are sustained by aircraft during the Pilot Refresher Training Course. The Pilot/Aircraft Owner agrees to pay the cost of any insurance deductible on his aircraft as well as any and all costs and expenses that insurance might not pay.**

GROUND TRAINING

A. Ground training will include the following subjects:

1. Description of different aircraft systems
 - a) Airframe and Engine
 - b) Transmission and Drive Train
 - c) FADEC
 - d) Fuel System
 - e) Hydraulic System
 - f) Electric System
2. Emergency procedures
3. Performance and Limitations
4. Weight and Balance
5. VFR Flight Rules
6. Review of Appropriate NTSB Accident Reports

FLIGHT TRAINING

B. Flight Training will include the following procedures and maneuvers:

1. Ground operations
 - a) Preflight Inspection
 - b) Refueling Procedures
 - c) Passenger Loading Procedures
 - d) Safety Around Helicopters
2. Normal Procedures
3. Emergency procedures
 - a) Full Touch Down Autorotations
 - b) Simulated Engine Failure
 - c) Simulated FADEC Failure if applicable
 - d) Hovering Autorotations
 - e) Simulated Tailrotor Malfunctions

Satisfactory completion will also meet the requirements of FAR 61.56 (Flight Review)

C. COURSE COMPLETION REQUIREMENTS

We understand that all pilots have different backgrounds and levels of experience. Therefore, instruction in the classroom and in flight is designed to prepare the pilot to successfully meet the course standards. With this in mind, the standards followed by the instructor represent the standards recommended by HeliStream, Inc., Airbus Flight Maneuver Guide and FAA Regulations.

Training will be considered complete after passing a written test on aircraft systems and demonstrating proficiency in flight maneuvers.

Performance and knowledge standards will coincide with those applied by the FAA Practical Test Standard appropriate to the recurrent training and appropriate to the rating held. Ground and flight instructors will place special emphasis upon areas of aircraft operation which are most critical to flight safety. Among these areas are aircraft control and good judgment in decision making.

Satisfactory performance is based on:

Performing maneuvers within the aircraft's performance capabilities and limitations, including use of the aircraft's systems

1. Executing emergency procedures and maneuvers as appropriate.
2. Piloting the aircraft with smoothness and accuracy
3. Exercising good judgment
4. Applying aeronautical knowledge
5. Showing proficiency in aircraft within the standards of the practical test standard with the successful outcome of the maneuver never seriously in doubt.

If in the instructor's judgment, the performance standards are not met, or limitations are consistently exceeded, performance will be considered unsatisfactory. Further training may be necessary to meet the acceptable standards. Each situation will be evaluated on a case by case basis.

D. HELISTREAM, INC. FLIGHT MANEUVER GUIDE

D.1 TAKEOFF TO A HOVER

Purpose: To transition from the ground to a stabilized 5-foot hover.

Description: After completing a pre-takeoff check, clear the helicopter left and right. Set the cyclic approximately at neutral, collective pitch in full down position, right pedal slightly forward. Slowly and smoothly raise the collective. The AS350 should be getting light on the skids in the range between 40 - 50% Torque, so ease into this range smoothly, feeling for any movement of the helicopter.

A small amount of right pedal will normally be required to compensate for the increased torque. As the helicopter becomes light on the skids, select a reference point 50 to 75 feet in front of the helicopter and neutralize all aircraft movement with the cyclic and pedals. Continue to increase the collective smoothly and slowly, maintaining heading with slight pedal corrections. Since the AS350 normally hovers in a right skid low attitude, the left skid will begin to break ground, first. Compensate with left cyclic. As the helicopter becomes light on the skids, extreme caution must be used to avoid any rearward or lateral movement since this can cause an immediate rollover. Should any lateral or rearward movement occur, immediately lower the collective and begin again. The helicopter should rise vertically, maintaining heading with pedals, position over the ground with cyclic, and altitude with the collective. After attaining a stabilized 5-foot hover, perform hover check:

1. Rotor RPM - 390 (+4,-5)
2. Engine instruments - green range
3. Hover power (torque)

<u>PERFORMANCE STANDARDS:</u>	<u>Commercial</u>
Heading	± 5°
Altitude	± 1 foot
Position	5' Circle

D.2 LANDING FROM A HOVER

Purpose: To land the helicopter from a 5-foot hover.

Description: From a stabilized 5-foot hover, headed into the wind, slightly lower the collective to establish a slow rate of sink. A small amount of left pedal will be needed to maintain heading. The cyclic will be used to maintain position over the ground. Vision should be directed 50 - 75 feet in front of the helicopter. Do not look immediately in front of the helicopter, as this will lead to over controlling.

As the helicopter descends to about 6 inches, additional downward pressure on the collective may be necessary to overcome the increase in ground effect. As the skids make ground contact, neutralize all aircraft movement with cyclic and pedals, continuing to smoothly lower the collective until it is full down. Due to the right skid low attitude of the AS350 the right skid will normally touch first on level terrain. A slight amount of right cyclic will be necessary as ground contact is made.

CAUTION

Do not allow the helicopter to land with any rearward or sideward movement.

<u>PERFORMANCE STANDARDS:</u>	<u>Commercial</u>
Heading	± 5°
Drift	2 feet

D.3 HOVERING FLIGHT

Purpose: To maneuver the helicopter forward, sideward, rearward and turn the aircraft while hovering.

Description:

1. Forward, sideward and rearward flight.

From a stabilized 5-foot hover, headed into the wind, move the cyclic smoothly towards the desired direction of flight. Maintain heading with small pedal corrections and altitude with collective. As movement begins, adjust the cyclic to keep the groundspeed at a constant rate equivalent to a normal walk. Reference points along the direction of flight can be used to maintain correct ground track. To stop the movement, apply cyclic opposite to the direction of movement until the helicopter stops. During all phases of hovering, cyclic changes should be small and smooth to minimize the effects of over-controlling or pendular action. Crosswind hovering is accomplished in much the same manner. The cyclic must be inclined into the wind enough to cancel out any tendency for the helicopter, to drift.

2. Hovering Turns.

Hovering turns accomplished by use of the pedals. With the helicopter headed into the wind, apply pedal in the desired direction of mm. As the helicopter turns, counter pressures on the opposite pedal should be used to maintain a slow, constant rate of turn. (A rate of 360° in 15 seconds is recommended.) Cyclic is used to control attitude and position over the ground and should be continually adjusted into the wind to avoid drifting and excessive attitude changes during the turn. Maintain a constant altitude with the collective. Normally, a slight altitude and RPM loss will occur in a right mm due to the increased pitch of the tail rotor blades. This can be corrected with a slight increase in collective necessary. Left turns produce just the opposite effect. A decrease in the tail rotor pitch will cause a slight increase in RPM and altitude. If necessary, compensate by slightly lowering the collective. As the desired heading is reached, stop the mm by applying slight pressure on the opposite pedal.

PERFORMANCE STANDARDS:	Commercial
Heading	± 5°
Altitude	± 1 foot
Position	5' Circle

D.4 NORMAL TAKEOFF FROM A HOVER

Purpose: To transition from a hover to a normal climb.

Description: From a stabilized 5-foot hover, select an object(s) along the takeoff path for use as a reference point to maintain ground track. Clear the aircraft left and right with a clearing turn, then complete a before takeoff check (instruments normal, warning lights out). Begin the takeoff with a small mount of forward cyclic to get the helicopter moving forward. If the helicopter begins to settle, increase the collective as necessary to hold altitude and maintain heading with pedals. As the airspeed increases to approximately 10 to 12 KTS, effective translational lift (ETL) will occur, and can be felt as a lateral vibration. At ETL, lift will increase noticeably causing the nose to pitch up. Apply sufficient forward cyclic to continue to accelerate to 40 KTS and prevent the nose from rising. As airspeed increases, the streamlining of the fuselage and the increased efficiency of the tail rotor will cause a right yaw, requiring a left pedal correction. Continue to smoothly accelerate, maintaining ground-track. At an altitude of 300 feet and airspeed of 50 KTS, adjust torque to climb power and slight aft cyclic to establish a 65 KTS climb attitude.

Crosswind Considerations: During crosswind takeoffs, the helicopter is flown in a slip to an altitude of 50 feet. Place the cyclic into the wind as necessary to maintain the proper ground track. Apply opposite pedal to align the fuselage with the ground track. Above 50 feet, crab the helicopter into the wind by putting the aircraft in trim and maintaining ground track with cyclic.

NOTE: During the takeoff, the acceleration to climb speed and the commensurate altitude gain should be accomplished without entering the shaded areas of the height-velocity diagram.

PERFORMANCE STANDARDS:	COMMERCIAL
Drift below 10 feet	± 10 feet
Drift above 10 feet	± 25 feet

D.5 NORMAL APPROACH TO A HOVER

Purpose: To transition from flight at altitude to a stabilized 5 foot hover.

Description: On final approach, the helicopter should be headed into the wind, aligned with the point of intended touchdown, at 65 KTS and 300 feet AGL. When a normal approach angle of 10° is intercepted, begin the approach by lowering the collective sufficiently to get the helicopter descending down the approach angle. With the decrease in collective, the nose will tend to pitch down, requiring aft cyclic to maintain a 60 KT attitude and left pedal to maintain heading. The pilot can determine the proper approach angle by relating the point of intended touchdown to a point on the helicopter windshield.

The collective controls the angle of approach. If the touchdown point seems to be moving up on the windshield, the angle is becoming shallower, necessitating a slight increase in collective. If the touchdown point moves down on the windshield, the approach angle is becoming steeper, requiring a slight decrease in collective. The cyclic is used to control the rate of closure or how fast you are moving toward the touchdown point. Maintain entry airspeed until the apparent groundspeed and rate of closure appear to be increasing. At this point, slowly begin decelerating with slight aft cyclic, maintaining the approach angle by smoothly reducing the collective. Use the cyclic to maintain a rate of closure equivalent to a brisk walk. At approximately 25 to 40 feet, depending on wind, the helicopter will begin to lose effective translational lift. This loss will be felt as a lateral vibration and the aircraft will begin to settle. The pilot must anticipate the loss of ETL, and compensate with increased collective to maintain the approach. The increase of collective will tend to make the nose rise requiring forward cyclic to maintain proper rate of closure.

As the helicopter approaches an altitude of 5 feet, the collective should be increased sufficiently to hold a 5 foot hover and heading with pedals. A small aft cyclic input may be necessary to stop any forward movement.

Crosswind Considerations: During the approach, maintain a crab into the wind and the aircraft in trim. At 50 feet of altitude, a slip should be used to align the fuselage with the ground track. Apply cyclic into the wind and opposite pedal.

PERFORMANCE STANDARDS:	COMMERCIAL
Drift below 10 feet	± 10 feet
Drift above 10 feet	± 25 feet

D.6 HIGH ALTITUDE (RUNNING) TAKEOFF

Purpose: To simulate a takeoff when a hover cannot be sustained due to high-density altitude or high gross weight.

Description: From a stabilized 5-foot hover, note the hover power in the direction of takeoff, set the helicopter down on the surface, and clear left and right. Increase the collective to get the helicopter light on the skids. Pause momentarily and neutralize any aircraft movement. Slowly increase the collective and apply forward cyclic to get the helicopter sliding forward on the surface. Maintain the heading with pedals and ground track with the cyclic.

Continue to slowly increase the collective until torque is 2 - 4% below noted hover power. As the aircraft approaches effective translational lift, slight backpressure on the cyclic will lift the helicopter off the ground. Continue to accelerate remaining below 10 feet until a minimum climb speed of at least 40 KTS is reached. At 50 feet of altitude, adjust torque to climb power.

PERFORMANCE STANDARDS:	Commercial
Heading	± 5°

D.7 HIGH ALTITUDE (RUNNING) LANDINGS

Purpose: To simulate an approach and landing when sufficient power for hovering is not available.

Description: On final approach, the helicopter should be headed into the wind at 65 KTS and 300 feet AGL. When a shallow approach angle of 5° is intercepted, begin the approach by lowering the collective to maintain the approach angle. Maintain entry airspeed until apparent rate of closure and groundspeed appear to be increasing. Begin a slow deceleration with aft cyclic, maintaining approach angle by reducing collective, the aircraft in trim. Plan to arrive at the point of intended touchdown at or slightly above effective translational lift. Prior to ground contact, insure that the helicopter is in a level attitude. After ground contact, maintain heading with pedals and slowly lower the collective for braking action until the helicopter comes to a full stop.

Crosswind Considerations: As in normal and steep approach, crab the helicopter above 50 feet AGL, and use a slip below 50 feet AGL to align the aircraft with the ground track.

PERFORMANCE STANDARDS:	Commercial
Heading	± 5°
Touchdown Point	± 25 feet
Torque	less than hover

D.8 STEEP APPROACH TO A HOVER

Purpose: To transition from flight at altitude to a hover using a steeper than normal approach angle.

Description: On final approach, the helicopter should be headed into the wind, aligned with the point of intended touchdown, at 65 KTS and 300 feet AGL. When a steep approach angle of 15 is intercepted, begin the approach by lowering the collective to get the helicopter descending down the approach angle and coordinate right pedal for trim. Since this angle is steeper than a normal approach angle, the collective must be reduced more than for a normal approach. As in the normal approach, reference the touchdown point on the windshield to determine changes in the approach angle. Aft cyclic will be required to decelerate sooner than in a normal approach due to the steeper angle and the rate of closure will become apparent at a slightly higher altitude. Maintain a crab above 50 feet, and a slip below 50 feet. Maintain the approach angle and rate of descent with collective, rate of closure with cyclic and trim with pedals. Loss of ETL will occur higher during a steep approach requiring an increase collective to prevent settling, forward cyclic for proper rate of closure, right pedal for trim. Terminate at a stabilized 5-foot hover.

NOTE: Avoid high rates of descent at airspeeds below 30 KTS.

PERFORMANCE STANDARDS:	Commercial
Heading	± 5°
Termination	± 5 feet

D.9 PINNACLE OPERATIONS

A Pinnacle is an area from which the surface drops away steeply on all sides. A ridgeline is a long area from which the surface drops away steeply on one or two Sides, such as a bluff or cliff. Barriers are not usually present on pinnacles or ridgelines; but, if they are, a combination of pinnacle and confined area operations may be necessary when operating into and out of such areas. That is, an area may require a pinnacle-type operation during the approach and landing. But if the strength of the wind dictates the takeoff path, and barriers exist under that path, a confined area-type takeoff may be required when departing that area. Conversely, conditions

and terrain may justify a confined area-type approach into an area and a pinnacle-type departure from that area. The absence of barriers does not necessarily lessen the difficulty of pinnacle or ridgeline operations. Updrafts, downdrafts, and turbulence, together with unsuitable terrain in which to make a forced landing, may still present extreme hazards.

General rules for pinnacle operations

The following are some of the more important rules to consider when conducting pinnacle or ridgeline operations:

1. If necessary to climb to a pinnacle or ridge-line, the climb should be performed on the upwind side, when practicable, to take advantage of any updrafts.
2. Load, altitude, wind conditions, and terrain features determine the angle to use in the final part of an approach. A steeper-than-normal approach may be used when barriers or excessive downdrafts exist. A shallower-than-normal approach may be used when there are no barriers or downdrafts and when it is suspected that the helicopter cannot be hovered out of ground effect. In this case, an approach to the surface may be necessary.
3. The approach path to a ridgeline is usually parallel to that ridgeline and as nearly into the wind as possible. If a crosswind exists, remain clear of downdrafts on the leeward or downwind side of the ridgeline. If the wind velocity makes the crosswind landing hazardous, a low coordinated turn into the wind may be made just prior to terminating the approach.
4. When making an approach to a pinnacle, avoid leeward turbulence and keep the helicopter within reach of a forced landing area as long as possible.
5. Since pinnacles and ridgelines are generally higher than the immediate surrounding terrain, gaining airspeed on the takeoff is more important than gaining altitude. The airspeed gained will cause a more rapid departure from the area. In addition to covering unfavorable terrain rapidly a higher airspeed affords a more favorable glide angle and thus contributes to the chances of reaching a safe area in the event of a forced landing. If no suitable area is available, a higher airspeed will permit a more effective flare prior to making an autorotative landing.

D10. CONFINED AREA OPERATIONS

A confined area is an area where the flight of the helicopter is limited in some direction by terrain or the presence of obstructions, natural or manmade. For example, a clearing in the woods, a city street, a road, a building roof, and so on, can each be regarded as a confined area.

Barriers on the surface and the surface itself may interfere with the smooth flow of air, resulting in turbulence. This interference is transmitted to upper air levels as larger but less intense disturbances. Therefore, the greatest turbulence is usually found at low altitudes. Gusts are unpredictable variations in wind velocity. Ordinary gusts are dangerous only in slow flight at very low altitudes. The pilot may be unaware of the gust, and its cessation may reduce airspeed below that required to sustain flight due to the loss in effective translational lift. Gusts cannot be planned for or anticipated. Turbulence, however, can generally be predicted. Turbulence will be found in the following areas when wind velocity exceeds 10 MPH:

1. Near the ground of the downwind side of trees, buildings, hills, or other obstructions. The turbulent area is always relative in size to that of the obstacle, and relative in intensity to the velocity of the wind.
2. Near the surface on the immediate upwind side of any solid barrier such as trees in leaf, and buildings. This condition is not generally dangerous unless the wind velocity is approximately 20 MPH or higher.
3. In the air, above and slightly downwind of any sizable obstruction, such as a hill or mountain range. The size of the obstruction and the wind velocity govern the severity and the height to which the turbulence extends.

GENERAL RULES FOR CONFINED AREA OPERATIONS

Some general rules can be stated that apply to helicopter operations in any type of confined area. The following are some of the more important ones to consider regardless of whether such areas are enclosed, or are slopes or pinnacles.

1. Know the direction and approximate speed of the wind at all times, and plan landings and takeoffs with these wind conditions in mind. This does not necessarily mean that takeoffs and landings will always be made into the wind, but wind must be considered, and many times its velocity will determine proper avenues of approach and takeoff.
2. If possible, plan a flight path over areas suitable for forced landings in case of engine failure. It may be necessary to choose between an approach which is crosswind but over an open area and one directly into the wind but over heavily wooded and extremely rough terrain where a safe forced landing would be impossible. Perhaps the initial phase of the approach can be made crosswind over the open area and then a turn made into the wind for the final portion of the approach.
3. Always operate the helicopter as closely to its normal capabilities as possible considering the situation at hand. In all confined area operations, with the exception of the pinnacle operation, the angle of descent should be no steeper than necessary to clear any barrier in the avenue of approach and still land on the selected spot. The angle of climb, on takeoff, should be normal, or not steeper than necessary to clear any barrier. Clearing a barrier by a few feet and maintaining normal operating RPM, with perhaps a reserve of power, is better than clearing a barrier by a wide margin but with a dangerously low RPM and no power reserve.
4. Always make the landing to a specific point and not to some general area. This point should be located well forward--away from the approach end of the area. The more confined the area, the more essential it is that the helicopter be landed precisely at; a definite point. This point must be kept in sight during the entire final approach.
5. Any large increase in elevation between the point of takeoff and the point of intended landing must be given due consideration, as sufficient power must be available to bring the helicopter to a hover at the point of the intended landing. A decrease in wind should also be allowed for because of the presence of obstructions.
6. When flying a helicopter near obstructions, always consider the tail rotor. A safe angle of descent over barriers must be established to ensure tail rotor clearance of all obstructions. After coming to a hover, care must be taken to avoid turning the tail into obstructions.

7. If possible, a normal takeoff from a hover should be made when departing a confined area. However, if barriers of sufficient height exist that would make this impossible, and then a maximum performance takeoff should be made.

D.11 SLOPE OPERATION

Purpose: To land from a hover and takeoff to a hover from a sloping surface.

Description: Prior to conducting slope operations, the pilot must be thoroughly familiar with dynamic roll-over characteristics and mast bumping. For training, use a maximum slope angle of 5°

1. Slope Landings - Position the helicopter cross slope at a stabilized 5 foot hover headed into the wind. Lower the collective slightly to establish a slow rate of sink. When the upslope skid contacts the ground, begin applying lateral cyclic in the direction of the slope (upslope) to hold the skid against the slope. Maintain heading with pedals. Continue to apply cyclic into the slope as the collective is lowered until the downslope skid is firmly on the ground. Once the collective is full down, center the cyclic to allow safe "head clearance" on the upslope side.

2. Slope Takeoffs - The procedure for a slope takeoff is almost the exact reverse of that for a slope landing. Apply cyclic into the slope (upslope) and slowly begin to increase the collective. As the helicopter becomes light on the skids, pause and neutralize any aircraft movement. Continue to increase the collective maintaining heading with pedals. When the downslope skid breaks ground, slowly begin to center the cyclic. As a level attitude is reached, the cyclic should be approximately neutral. Continue to increase collective, maintaining position over the ground with cyclic and heading with pedals until a stabilized 5 foot hover is attained.

PERFORMANCE STANDARDS	Commercial
Heading	± 5°

D.12 RAPID DECELERATION (QUICK STOP)

Purpose: To simulate a condition when a rapid decrease in forward airspeed is required as in an aborted takeoff.

Description: Perform a normal takeoff into the wind. Once a minimum altitude of 25 feet is attained, apply additional forward cyclic to accelerate to 40 to 50 KTS while maintaining altitude. Begin the quick stop by smoothly lowering the collective, adding left pedal, and simultaneously applying aft cyclic to decelerate. Apply aft cyclic as needed to maintain entry altitude throughout the deceleration. As airspeed is lost, the helicopter will begin to settle. Slowly increase the collective to control the rate of descent adding forward cyclic to level the helicopter. Maintain heading with pedals. Terminate at a stabilized 5-foot hover. Use caution to avoid terminating at a high hover or in an extreme tail low attitude.

PERFORMANCE STANDARDS	Commercial
Heading	± 5°
Altitude	± 10 feet
Termination Point	± 25 feet

D.13 MAXIMUM PERFORMANCE TAKEOFF AND CLIMB

Purpose: To transition from the surface to a maximum performance climb, simulating obstruction clearance.

Description: Clear the aircraft left, right and overhead, then complete a before takeoff check (Warning Lights, Instruments). Select a reference point(s) along the takeoff path to maintain ground track.

Begin the takeoff by getting the helicopter light on the skids. Pause and neutralize all aircraft movement. Slowly increase the collective and position the cyclic so as to break ground and maintain a 40 KT attitude (approximately the same attitude as when the helicopter is light on the skids). Continue to slowly increase the collective until the maximum power available is reached. This large collective movement will require a substantial increase in right pedal to maintain heading. The pilot must closely monitor torque, Ng, and t4 indicators (FLI) when operating at high power settings in order to remain within engine and transmission limitation.

At 50 feet of altitude, slowly lower the nose to a normal 50 KTS climb attitude. As the airspeed passes 55 KTS, reduce the collective to normal climb power and reduce collective to normal climb power.

PERFORMANCE STANDARDS	Commercial
Heading	± 5°

D.14 HOVERING AUTOROTATION

Note: **This maneuver is to be performed with a qualified Flight Instructor.**

Purpose: To simulate landing the helicopter from a hover with a complete power loss.

Description: Begin from a stabilized 3 to 5 feet hover over level terrain and headed into the wind.

The Flight Instructor will now set collective twist grip to ground idle position.

Compensate for right yaw, as torque is decreased, by adjusting left pedal to maintain heading. This reduction of tail rotor thrust will cause a right drift when the COLLECTIVE TWIST GRIP is set to ground idle. Compensate for this drift with left cyclic. When the aircraft has settled to approximately 1 foot, increase the collective to cushion the landing. Adjust cyclic to touch down Skids-level. Once firmly on the ground, lower the collective full down. Use caution to avoid any sideward or rearward movement on touchdown to prevent the possibility of a rollover.

PERFORMANCE STANDARDS	Commercial
Heading	± 5°
Touchdown	Level

D.15 STRAIGHT-IN AUTOROTATION WITH POWER RECOVERY

Note: **This maneuver is to be performed with a qualified Flight Instructor.**

Purpose: To simulate safely landing the helicopter with a complete power loss.

Description:

- 1. The Entry** - From level flight at 70 to 80 KTS, 500 to 700 feet AGL, and headed into the wind, smoothly, but firmly, lower the collective full down. Coordinate the collective movement with left pedal for trim and aft cyclic to maintain a 75 KT attitude.

Since the collective is in a full down position the rotor RPM will increase above the NF governed range thus allowing the aircraft to be in a state of autorotation.

Monitor and adjust Rotor RPM with the collective as necessary. Crosscheck attitude, trim, rotor RPM and airspeed.

2. The Glide - After descent has been established, slowly reduce the airspeed to 60 to 70 KTS and maintain this attitude throughout the glide. During straight-in autorotative glides, aft cyclic movements will cause an increase in rotor RPM which is controlled by a small increase in collective. Avoid a large collective increase which will result in a rapid decay of rotor RPM and lead to "chasing the RPM." Maintain RPM in green and the aircraft in trim during the glide. Below 100 feet AGL, maintain aircraft alignment with a slip. A constant 60 to 70 KT attitude should be held with the cyclic. Avoid looking straight down in front of the aircraft. Continually crosscheck attitude, trim, rotor RPM, and airspeed.

NOTE: As the aircraft descends through 100 feet AGL, make an immediate power recovery if the following conditions **do not** exist:

- A. Rotor RPM in the green
- B. Airspeed 60 to 70 KTS
- C. Rate of descent less than 1800 FPM

3. The Flare - At approximately 65 feet AGL, begin the flare with aft cyclic to reduce forward airspeed and decrease the rate of descent. The amount of flare will depend on wind conditions and gross weight, and should gradually be increased so that groundspeed and rate of descent are significantly decreased. Too much flare will cause the helicopter to balloon up causing a high vertical descent as airspeed is lost.

4. The Power Recovery - At approximately 8 to 10-foot skid height, begin to level the helicopter with forward cyclic. Extreme caution should be used to avoid an excessive nose high/tail low attitude below 10 feet. Just prior to achieving a level attitude, with the nose still slightly up, increase the collective maintaining heading with right pedal. Do not allow the helicopter to descent below 5 feet during the power recovery.

PERFORMANCE STANDARDS:	COMMERCIAL
Predetermined Spot	± 25 feet
RPM	Green Range
Airspeed	± 5 KTS

D.16 STRAIGHT-IN AUTOROTATION (TOUCH DOWN)

Note: **This maneuver is to be performed with a qualified Flight Instructor**

Purpose: To simulate safely landing the helicopter with a complete power loss.

Description:

1. The Entry - From level flight at 70 to 80 KTS, 500 to 700 feet AGL, and headed into the wind, smoothly, but firmly, lower the collective full down while simultaneously closing the collective twist grip to the idle position. Coordinate the collective movement with left pedal for trim and aft cyclic to maintain a 75 KT attitude.

Since the collective is in a full down position the rotor RPM will increase above the NF governed range thus allowing the aircraft to be in a state of autorotation.

Monitor and adjust Rotor RPM with the collective as necessary. Crosscheck attitude, trim, rotor RPM and airspeed.

2. The Glide - After descent has been established, slowly reduce the airspeed to 60 to 70 KTS and maintain this attitude throughout the glide. During straight-in autorotative glides, aft cyclic movements will cause an increase in rotor RPM which is controlled by a small increase in collective. Avoid a large collective increase which will result in a rapid decay of rotor RPM and lead to "chasing the RPM." Maintain RPM in green and the aircraft in trim during the glide. Below 100 feet AGL, maintain aircraft alignment with a slip. A constant 60 to 70 KT attitude should be held with the cyclic. Avoid looking straight down in front of the aircraft. Continually crosscheck attitude, trim, rotor RPM, and airspeed.

NOTE: As the aircraft descends through 100 feet AGL, make an immediate power recovery if the following conditions **do not** exist:

- A. Rotor RPM in the green
- B. Airspeed 60 to 70 KTS
- C. Rate of descent less than 1800 FPM

3. The Flare - At approximately 65 feet AGL, begin the flare with aft cyclic to reduce forward airspeed and decrease the rate of descent. The amount of flare will depend on wind conditions and gross weight, and should gradually be increased so that groundspeed and rate of descent are significantly decreased. Too much flare will cause the helicopter to balloon up causing a high vertical descent as airspeed is lost.

At approximately 20-25 feet, apply collective pitch to slow the descent. Continue to increase collective to achieve a touchdown vertical speed of near zero.

4. The Touch Down – Just prior to touchdown gradually reduce the nose-up attitude by forward cyclic application. Continue to raise the collective to cushion the landing. Touch down should be skids level or slightly nose high (max. 5° nose-up)

PERFORMANCE STANDARDS:	COMMERCIAL
Predetermined Spot	± 25 feet
RPM	Green Range
Airspeed	± 5 KTS

D.17 180° AUTOROTATION WITH POWER RECOVERY

Note: **This maneuver is to be performed with a qualified Flight Instructor.**

Purpose: To simulate safely landing the helicopter by turning 180° with a complete power loss.

Description:

1. The Entry - Establish the aircraft on downwind at 75 KTS and 700 feet AGL. When abeam the intended touchdown point, enter the autorotation by smoothly, but firmly, lowering the collective full down while simultaneously closing the collective twist grip to the idle position.

Since the collective is in a full down position the rotor RPM will increase above the NF governed range thus allowing the aircraft to be in a state of autorotation.

Apply left pedal and aft cyclic to maintain attitude. Crosscheck attitude, trim, rotor RPM, and airspeed.

2. The Glide/Turn - After the descent is established, apply aft cyclic to achieve a 60 to 70 KT attitude, then roll into a 180°turn. The proper angle of bank will be determined by wind velocity, but use caution to avoid an excessively steep turn. Throughout the turn, it is important to **maintain** the proper attitude (airspeed) and keep the aircraft in trim. Changes in the aircraft's attitude and the angle of bank will cause corresponding increases and decreases in rotor RPM. Adjust the collective as necessary in the turn to maintain rotor RPM in the green. Crosscheck rotor RPM when maneuvering the AS350 in autorotative turns since rotor RPM can increase rapidly. The turn should be completed and the helicopter aligned with the intended touchdown area prior to passing through 100 feet AGL. If the collective has been increased to load the rotor during the turn, it may have to be lowered on roll out to prevent decay in RPM.

NOTE: As the aircraft descends through 100 feet AGL, make an immediate power recovery if the following conditions **do not** exist:

- A. Aircraft aligned with the touchdown point
- B. Rotor RPM in the green range
- C. Airspeed 60 to 70 KTS

3. The Flare - Same as straight-in autorotation.

4. The Power Recovery - Same as straight-in autorotation.

PERFORMANCE STANDARDS:	COMMERCIAL
Predetermined Spot	± 25 feet
RPM	Green Range
Airspeed	± 5 KTS

D.18180° AUTOROTATION (TOUCH DOWN)

Note: **This maneuver is to be performed with a qualified Flight Instructor.**

Purpose: To simulate safely landing the helicopter by turning 180°with a complete power loss.

Description:

1. The Entry - Establish the aircraft on downwind at 75 KTS and 700 feet AGL. When abeam the intended touchdown point, enter the autorotation by smoothly, but firmly, lowering the collective full down.

Since the collective is in a full down position the rotor RPM will increase above the NF governed range thus allowing the aircraft to be in a state of autorotation.

Apply left pedal and aft cyclic to maintain attitude. Crosscheck attitude, trim, rotor RPM, and airspeed.

2. The Glide/Turn - After the descent is established, apply aft cyclic to achieve a 60 to 70 KT attitude, then roll into a 180° turn. The proper angle of bank will be determined by wind velocity, but use caution to avoid an excessively steep turn. Throughout the turn, it is important to **maintain** the proper attitude (airspeed) and keep the aircraft in trim. Changes in the aircraft's attitude and the angle of bank will cause corresponding increases and decreases in rotor RPM. Adjust the collective as necessary in the turn to maintain rotor RPM in the green. Crosscheck rotor RPM when maneuvering the AS350 in autorotative turns since rotor RPM can increase rapidly. The turn should be completed and the helicopter aligned with the intended touchdown area prior to passing through 100 feet AGL. If the collective has been increased to load the rotor during the turn, it may have to be lowered on roll out to prevent decay in RPM.

NOTE: As the aircraft descends through 100 feet AGL, make an immediate power recovery if the following conditions **do not** exist:

- A. Aircraft aligned with the touchdown point
- B. Rotor RPM in the green range
- C. Airspeed 60 to 70 KTS

3. The Flare - Same as straight-in autorotation.

4. The Touch Down - Same as straight-in autorotation.

PERFORMANCE STANDARDS:	COMMERCIAL
Predetermined Spot	± 25 feet
RPM	Green Range
Airspeed	± 5 KTS

D.20 SIMULATED ENGINE FAILURE

Note: This maneuver is to be performed with a qualified Flight Instructor.

Purpose: To simulate an emergency situation designed to develop the pilot's reaction time, planning and judgment in case of an engine failure during flight.

Description: During cruise flight with the Pilot at the controls, the instructor will initiate the forced landing by moving collective twist grip into ground idle position. The Pilot will immediately lower the collective full down coordinated with the left pedal for trim and aft cyclic to maintain attitude. This should be accomplished quick enough to prevent the rotor from decaying below 320 RPM. As the rotor RPM builds back into the green,

increase collective as necessary to maintain rotor RPM in the green. Once established in an autorotative descent, select an intended landing area. Maneuver the helicopter as necessary to align the aircraft with the intended landing area, generally headed into the wind. Use increases in the collective and forward cyclic, if necessary, to prevent the rotor from over speeding while maneuvering. Airspeed should be adjusted to 60 to 70 KTS.

Prior to passing through 100 feet, the aircraft should be aligned with the touchdown area, at 60 to 70 KTS, rotor in the green range, and in trim. Execute a power recovery and transition to normal climb.

PERFORMANCE STANDARDS:

COMMERCIAL

Area Selection

Suitable

RPM on Entry

Above 320 RPM

Airspeed

± 5 KTS

**Exhibit B
Scope of Service**

**Private Pilot Rotorcraft - Helicopter
Certification Course**

1. **HELISTREAM, INC.**, John Wayne/Orange County Airport, Santa Ana, California, holds Air Agency Certificate Number JMXS266F. The School is owned and operated as:

HELISTREAM, INC
John Wayne Airport
3000 Airway Avenue, Suite 350
Costa Mesa, California 92626

2. **COURSE TITLE:** *Private Pilot Rotorcraft – Helicopter Certification Course*
3. This training course meets all the requirements of Section 141, Appendix F of the FAR.
4. The training syllabus herein contains a separate ground training course and a flight training course which are taught concurrently.
5. **COURSE OBJECTIVE** - The student will obtain the knowledge, skill, and aeronautical experience necessary to meet the requirements for a Private Pilot Certificate with Rotorcraft Category and Helicopter Class Rating.
6. **COMPLETION STANDARDS** - The student must demonstrate through flight tests, oral examinations, and written test that he/she meets the knowledge, skill and experience necessary to obtain a Private Pilot Certificate with Rotorcraft Category and Helicopter Class Rating.
7. **GROUND INSTRUCTION FACILITIES**
 - A. Training room no. 1 is approximately 242 square feet. Within this classroom there are located 7 instructors' desks with 2 chairs placed at each desk, as well as room dividers to provide sound insulation and reduce visual distractions. Drawing boards are located adjacent to each instructor's desk to facilitate explanations and diagrams of related subject matter. Also located within this area is a flight planning table with a telephone to obtain the current weather information, and to file FAA flight plans.
 - B. Training room no. 2 measures approximately 144 square feet. This room is provided with adequate tables and chairs to accommodate up to a capacity of 8 students.
 - C. The training rooms are well lighted, and the temperature is thermostatically controlled. These rooms are well ventilated and conform to local building sanitation and health codes. The rooms are constructed and located so that students will not be distracted by flight and maintenance operations.
8. **TRAINING AIDS AND EQUIPMENT** - Training aids consist of the video tapes and reference materials listed in Appendix D, and Dry Erase marking boards used for diagrams and discussions.

9. **AIRPORT** - John Wayne/Orange County Airport has hard surfaced runways and meets the requirements of Section 141.37 of the FAR for day and night flight operations. Centerport Heliport also meets the requirements for day and night flight operations.
10. **AIRPORT FACILITIES** - HeliStream, Inc. provides complete general aviation facilities. There is one pilot lounge area in addition to the ground training rooms described previously in paragraph 7. A direct line telephone to the Hawthorne FSS is provided for pilots to obtain weather briefings and file flight plans.
11. **AIRCRAFT** - The aircraft used for training in this course meet the requirements of Section 141.39 of the FAR. Radio equipment consists of, at least, one 90 channel transceiver. In addition, these aircraft are equipped for day and night VFR flight as specified in section 91.205 of the FAR. At least one of these helicopters will be equipped with ADF or VOR navigation equipment. A description of the aircraft type, including any special equipment, is located in Appendix A of the training course outline.
12. **CHIEF FLIGHT INSTRUCTOR** - The chief and assistant chief flight instructors for this course meet the requirements of Section 141.35 of the FAR, and are listed in Appendix B of the training course outline.
13. **FLIGHT INSTRUCTORS** - Each flight instructor must be the holder of, at least, a Commercial Pilot Certificate with a Rotorcraft Category Rating and a Helicopter Class Rating. In addition, he/she must be the holder of a Flight Instructor Certificate with a Helicopter Class Rating.
14. **CHIEF GROUND INSTRUCTOR** - The chief and assistant chief ground instructors for this course meet the requirements of Section 141.35 of the FAR, and are listed in Appendix B of the training course outline.

GROUND TRAINING - 50 HOURS

1. GROUND TRAINING COURSE OBJECTIVES

The student will obtain the necessary aeronautical knowledge for the private pilot-helicopter written examination.

2. GROUND TRAINING COURSE COMPLETION STANDARDS

The student will demonstrate through oral and written tests and records that he has necessary aeronautical knowledge to pass the private pilot-helicopter written examination.

3. INITIAL CERTIFICATION STUDENTS

The 35 hours of ground training will be accomplished in three stages. Each of these instructional units is described in the succeeding pages.

4. ADDITIONAL AIRCRAFT RATING STUDENTS

Stage 1, consisting of 13 hours of ground training, is the only required stage if the student holds a category rating for a powered aircraft.

FLIGHT TRAINING – 55 HOURS

1. ENROLLMENT PREREQUISITES

The student must be able to read, speak, and understand the English language and hold, at least, a current third class medical certificate.

2. FLIGHT TRAINING COURSE OBJECTIVES

The student will obtain the aeronautical skill and experience necessary to meet the requirements of a private pilot certificate with a rotorcraft category rating and a helicopter class rating.

3. FLIGHT TRAINING COURSE COMPLETION STANDARDS

The student will demonstrate through flight test and school records the necessary aeronautical skill and experience to obtain a private pilot certificate with a rotorcraft category rating and a helicopter class rating.

4. FLIGHT TRAINING SYLLABUS

The flight training will be accomplished in three stages. Hours shown in each lesson are minimum times and may be adjusted upwards to meet individual student needs.

**Exhibit C
Scope of Service**

Commercial Pilot Training Course

1. **HeliStream, Inc.**, John Wayne/Orange County Airport, Santa Ana, California, holds Air Agency Certificate No. JMXS266F. The school is owned and operated as:

HELISTREAM, INC.
3000 Airway Avenue, Suite 350
John Wayne Airport
Costa Mesa, CA 92626

2. **COURSE TITLE** –*Commercial Pilot Certification Course – Rotorcraft Helicopter*
3. This training course meets all of the requirements of Section 141, Appendix D of the FAR.
4. The training syllabus herein contains a separate ground training course and a flight training course, which are taught concurrently.
5. **COURSE OBJECTIVE** - The student will obtain the knowledge, skill and aeronautical experience necessary to meet the requirements for a Commercial Pilot Certificate with a Rotorcraft-Helicopter rating.
6. **COMPLETION STANDARDS** - The student must demonstrate through flight tests, oral examinations, and written tests that he meets the knowledge, skill, and experience necessary to obtain a Commercial Pilot Certificate with a Rotorcraft-Helicopter rating.
7. **GROUND INSTRUCTION FACILITIES**
 - A. Training Room No. 1 is approximately 242 square feet. Within this classroom are located 4 instructor's desks with 2 chairs placed at each desk, as well as room dividers to provide sound insulation and reduce visual distractions. Drawing boards are located adjacent to each instructor's desk to facilitate explanations and diagrams of related subject matter. Also located within this area is a flight planning table with a telephone to obtain the current weather information, and to file FAA flight plans.
 - B. Training Room No. 2 measures approximately 170 square feet. This room is provided with adequate tables and chairs to accommodate up to a capacity of 8 students.
 - C. The training room is well lighted and the temperature is thermostatically controlled. The room is well ventilated and conforms to local building, sanitation, and health codes. The room is so constructed and located that students will not be distracted by flight and maintenance operation on the airport.
8. **AIRPORT** - John Wayne/Orange County Airport has hard surfaced runways and meets the requirements of Section 141.37 of the FAR for day and night flight operations.
9. **AIRPORT FACILITIES** - HeliStream, Inc., provides complete general aviation facilities. There is one pilot lounge area in addition to the ground training and briefing room described previously in

paragraph 7.

10. **AIRCRAFT** - The aircraft used for training in this course meet the requirements of section 141.39 of the FAR. Radio equipment will consist of at least one 90-channel transceiver and at least one VOR navigation receiver. In addition, these aircraft are equipped for day and night VFR flight as specified in section 91.205 of the FAR. At least one of these helicopters will be equipped with GPS navigation equipment. A description of the aircraft type, including any special equipment, is located in Appendix A of the training course outline.
11. **CHIEF FLIGHT INSTRUCTOR** - The Chief and Assistant Chief Flight Instructors for this course meet the requirements of section 141.35 and 141.36 of the FAR, and are listed in Appendix B of the training course outline.
12. **FLIGHT INSTRUCTORS** - Each flight instructor must be the holder of at least a commercial pilot certificate with a rotorcraft category rating and a helicopter class rating. In addition, he must be the holder of a flight instructor certificate with a helicopter class rating. All instrument instruction will be given by flight instructors who possess an instrument rating on their flight instructor certificate.
13. **CHIEF GROUND INSTRUCTOR** - The Chief and Assistant Chief Ground Instructors for this course meet the requirements of Section 141.35 and 141.36 of the FAR, and are listed in Appendix B of the training course outline.
14. **TRAINING AIDS AND EQUIPMENT** - Training aids consist of a video tape viewing system, radio navigation mockup panel, reference materials listed in Appendix C, and Dry Erase marking boards used for diagrams and discussions.

GROUND TRAINING – 40 HOURS

1. ENROLLMENT PREREQUISITES

The student must be able to read, speak, write and understand the English language, hold a valid medical certificate, and at least a Private Pilot certificate with a rotorcraft category and helicopter class rating.

2. GROUND TRAINING COURSE OBJECTIVES

The student will obtain the aeronautical knowledge necessary to meet the requirements for a Commercial Pilot Certificate with a Rotorcraft-Helicopter rating.

3. GROUND TRAINING COURSE COMPLETION STANDARDS

The student will demonstrate through written tests and school records the necessary aeronautical knowledge to obtain a Commercial Pilot Certificate with a Rotorcraft-Helicopter rating.

4. GROUND TRAINING SYLLABUS

30 Hours of ground training will be accomplished in two stages. Hours shown in each lesson and stage of training are based on the average rate of student learning and are offered as a guide to the instructor. Times used on individual lessons and stages may be adjusted to meet individual student needs. Above average students may require less time to meet lesson, stage, or course completion standards, but must meet at least the minimum times specified on Page 3 for FAR 141 graduations.

FLIGHT TRAINING – 60 HOURS

1. ENROLLMENT PREREQUISITES

The student must be able to read, speak, write and understand the English language, hold a valid medical certificate, and at least a Private Pilot certificate with a rotorcraft category and helicopter class rating.

2. FLIGHT TRAINING COURSE OBJECTIVES

The student will obtain the aeronautical skill and experience necessary to meet the requirements for a Commercial Pilot Certificate with a Rotorcraft-Helicopter rating.

3. FLIGHT TRAINING COURSE COMPLETION STANDARDS

The student will demonstrate through flight test and school records the necessary aeronautical skill and experience to obtain a Commercial Pilot Certificate with a Rotorcraft-Helicopter rating.

4. FLIGHT TRAINING SYLLABUS

115 Hours of flight training will be accomplished in three stages. Hours shown in each lesson and stage of training are based on the average rate of student learning and are offered as a guide to the instructor. Times used on individual lessons and stages may be adjusted to meet individual student needs. Above average students may require less time to meet lesson, stage, or course completion standards, but must meet at least the minimum times specified on Page 3 for FAR 141 graduations.

5. SIMULATION

If training is being conducted in a helicopter that is not certified for IFR conditions, IFR flight training may be conducted under IFR in visual meteorological conditions (VMC).

Exhibit D
Scope of Service

Helicopter Instrument Rating

1. **HeliStream, Inc.**, John Wayne/Orange County Airport, Santa Ana, California, Air Agency Certificate No. JMXS266F. The school is owned and operated as:

HELISTREAM, INC.
3000 Airway Avenue, Suite 350 John Wayne Airport
Costa Mesa, CA 92626

2. **COURSE TITLE** - *Instrument Rating – Helicopter*
3. This training course meets all of the requirements of Section 141, Appendix C of the FAR.
4. The training syllabus herein contains a separate ground training course and a flight training course, which are taught concurrently.
5. **COURSE OBJECTIVE** - The student will obtain the knowledge, skill and aeronautical experience necessary to meet the requirement for an Instrument- Helicopter rating
6. **COMPLETION STANDARDS** - The student must demonstrate through flight tests, oral examinations, and written tests that he meets the knowledge, skill, and experience necessary to obtain an Instrument-Helicopter rating.
7. **GROUND INSTRUCTION FACILITIES**
 - A. Training Room No. 1 is approximately 242 square feet. Within this classroom are located 4 instructor's desks with 2 chairs placed at each desk, as well as room dividers to provide sound insulation and reduce visual distractions. Drawing boards are located adjacent to each instructor's desk to facilitate explanations and diagrams of related subject matter. Also located within this area is a flight planning table with a telephone to obtain the current weather information, and to file FAA flight plans.
 - B. Training Room No. 2 measures approximately 170 square feet. This room is provided with adequate tables and chairs to accommodate up to a capacity of 8 students.
 - C. The training room is well lighted, and the temperature is thermostatically controlled. The room is well ventilated and conforms to local building, sanitation, and health codes. The room is so constructed and located that students will not be distracted by flight and maintenance operation on the airport.
8. **AIRPORT** - John Wayne/Orange County Airport has hard surfaced runways and meets the requirements of Section 141.37 of the FAR for day and night flight operations.
9. **AIRPORT FACILITIES** - HeliStream, Inc., provides complete general aviation facilities. There is one pilot lounge area in addition to the ground training and briefing room described previously in

paragraph. There is a direct line telephone to FAA FSS where pilots may obtain weather briefings and file flight plans.

10. **AIRCRAFT** - The aircraft used for training in this course meet the requirements of section 141.39 of the FAR. Radio equipment will consist of at least one 90- channel transceiver and at least one VOR navigation receiver. In addition, these aircraft are equipped for day and night VFR and IFR flight as specified in section 91.205 of the FAR. At least one of these helicopters will be equipped with GPS navigation equipment. A description of the aircraft type, including any special equipment, is located in Appendix A of the training course outline.
11. **CHIEF FLIGHT INSTRUCTOR** - The Chief and assistant Chief Flight Instructors for this course meet the requirements of section 141.35 of the FAR and are listed in Appendix B of the training course outline.
12. **FLIGHT INSTRUCTORS** - Each flight instructor must be the holder of at least a commercial pilot certificate with a rotorcraft category rating and a helicopter class rating. In addition, he must be the holder of a flight instructor certificate with a helicopter class rating. All instrument instruction will be given by flight instructors who possess an instrument rating on their flight instructor certificate.
13. **CHIEF GROUND INSTRUCTOR** - The Chief and Assistant Chief Ground Instructors for this course meet the requirements of Section 141.35 of the FAR and are listed in Appendix B of the training course outline.
14. **TRAINING AIDS AND EQUIPMENT** - Training aids consist of a video tape viewing system, radio navigation mockup panel, reference materials listed in Appendix C, and Dry Erase marking boards used for diagrams and discussions.

GROUND TRAINING – 40 HOURS

1. OBJECTIVES

During Stage 1 the student will gain an increased understanding of the helicopter's flight instruments and their use in controlling the helicopter's spatial position. In addition, the student will become familiar with the National Airspace System, Federal Aviation Regulations pertaining to IFR flight, IFR Navigation Charts, and the IFR Clearance.

During Stage 2 the student will gain a thorough understanding of procedures appropriate to the IFR Air Traffic System as well as aeronautical decision making and crew resource management as it applies to IFR flight operations. The student will also gain an increased understanding of air navigation radio aids.

2. COMPLETION STANDARDS

Stage 1 will be complete when the student has passed the Stage 1 written examination with a minimum score of 70 percent. The Instructor will review each incorrect response to assure complete understanding before advancing the student to Stage 2.

Stage 2 will be complete when the student has passed the Stage 2 and final written examination with a minimum score of 70 percent. The instructor will review each incorrect response to assure complete understanding in preparation for the FAA instrument-rating helicopter written test.

FLIGHT TRAINING – 45 HOURS

1. ENROLLMENT PREREQUISITES

The student must be able to read, speak, and understand the English language, hold a valid medical certificate, and at least a Private Pilot certificate with a rotor- craft category and helicopter class rating and have accrued a total of 90 hours of pilot flight time. Upon completion the student will have accrued at least 125 hours total time.

2. FLIGHT TRAINING COURSE OBJECTIVES

The student will obtain the aeronautical skill and experience necessary to meet the requirements of a Rotorcraft-Helicopter Instrument rating.

3. FLIGHT TRAINING COURSE COMPLETION STANDARDS

The student will demonstrate through flight test and school records the necessary aeronautical skill and experience to obtain a Rotorcraft-Helicopter Instrument rating.

4. FLIGHT TRAINING SYLLABUS

35 Hours of instrument training will be accomplished in three stages. Hours shown in each lesson and stage of training are based on the average rate of student learning and are offered as a guide to the instructor. Times used on individual lessons and stages may be adjusted to meet individual student needs. Above average students may require less time to meet lesson, stage, or course completion standards, but must meet at least the minimum times specified on Page 3 for FAR 141 graduation.

5. SIMULATION

If training is being conducted in a helicopter that is not certified for IFR operations, IFR flight training may be conducted under IFR in visual meteorological conditions (VMC).

**Exhibit E
Scope of Service**

**Pilot Transition Training
Airbus AS 350**

1. This course is intended for individuals who hold a Helicopter Pilot Certificate and already have flight experience in Turbine Helicopters of similar size.
2. **DURATION:** 3 Days to include 12 hours Ground and a minimum of 5 hours of Flight Training
3. **TRAINING MATERIAL:** Training and study material will be provided for each student.
4. **OBJECTIVE:** To introduce pilots to the AS350B2/B3, its design and flight characteristics and develop proficiency in normal, abnormal and emergency procedures and to establish awareness of safe and efficient operating practices.
5. **COURSE CONTENT:** Classroom instruction will introduce aircraft systems operation and malfunctions as well as performance planning and weight & Balance calculations. The flight training will include demonstration and practice in normal and simulated emergency procedures including: Power-off touch down landings, tail rotor and hydraulic malfunctions.

****Note: HeliStream, Inc. accepts no responsibility for damages incurred within the context of the Pilot Refresher Training Course. Pilot/Aircraft Owner acknowledges risk of damage and/or wear & tear associated with emergency procedures training. In the event damage or wear & tear are sustained by aircraft during the Pilot Refresher Training Course. The Pilot/Aircraft Owner agrees to pay the cost of any insurance deductible on his aircraft as well as any and all costs and expenses that insurance might not pay.**

Pilot/Aircraft Owner agrees to list HeliStream, Inc. as an additional insured on his insurance prior to commencement of the Pilot Refresher Training Course.

GROUND TRAINING

Completion Time: 12 Hours Ground Training

1. Ground training will include the following subjects:
 - A. Description of different aircraft systems
 - Airframe and Engine
 - Transmission and Drive Train
 - Fuel System
 - FADEC/DECU (if applicable)
 - VEMD (if applicable)
 - Hydraulic System
 - Electric System
2. Emergency procedures
3. Performance and Limitations
4. Weight and Balance
5. Review of Appropriate NTSB Accident Reports

FLIGHT TRAINING

Minimum Completion Times: 5 Hours Flight Training

1. Flight Training will include the following procedures and maneuvers:

A. Ground operations

- Preflight Inspection
- Refueling Procedures
- Passenger Loading Procedures
- Safety Around Helicopters

B. Normal Procedures

C. Nonstandard Maneuvers

- Settling with Power
- Loss of Tail Rotor Effectiveness (LTE)

D. Emergency Procedures

- Full Touch Down Autorotations,
- Simulated Engine Failure,
- Simulated Hydraulic Failure,
- Simulated Tailrotor Malfunctions
- Simulated DECU Malfunctions (in AS350 B3 only)

Satisfactory completion will also meet the requirements of FAR 61.56 (Flight Review)

COURSE COMPLETION REQUIREMENTS

We understand that all pilots have different backgrounds and levels of experience. Therefore, instruction in the classroom and in flight is designed to prepare the pilot to successfully meet the course standards. With this in mind, the standards followed by the instructor represent the standards recommended by HeliStream, Inc., Airbus Flight Maneuver Guide and FAA Regulations.

Training will be considered complete after passing a written test on aircraft systems and demonstrating proficiency in flight maneuvers.

Performance and knowledge standards will coincide with those applied by the FAA Practical Test Standard appropriate to the recurrent training and appropriate to the rating held. Ground and flight instructors will place special emphasis upon areas of aircraft operation which are most critical to flight safety. Among these areas are aircraft control and good judgment in decision making.

Satisfactory performance is based on:

Performing maneuvers within the aircraft's performance capabilities and limitations, including use of the aircraft's systems

1. Executing emergency procedures and maneuvers as appropriate.
2. Piloting the aircraft with smoothness and accuracy
3. Exercising good judgment
4. Applying aeronautical knowledge
5. Showing proficiency in aircraft within the standards of the practical test standard with the successful outcome of the maneuver never seriously in doubt.

If in the instructor's judgment, the performance standards are not met, or limitations are consistently exceeded, performance will be considered unsatisfactory. Further training may be necessary to meet the acceptable standards. Each situation will be evaluated on a case by case basis.

Note: This course is a Aircraft Transition Course only and should not be mistaken with the various courses that American Airbus and HeliStream, Inc. offer, which are indented to meet certain specific requirements.

**Exhibit F
Payment Provisions**

Helistream Inc. – Recurrency Training Per Pilot:

Item Description	QTY	Training Hours	Cost per Pilot	Notes
Recurrency Training - Flight School	1	3	\$ 5,700.00	3 hours of flight instruction (\$1,900/hr x 3=\$5,700 Sheriff has option to do 1.5hrs)
Recurrency Training - Ground School	1	8	\$ 340.00	8 hours of ground instruction (\$170/hr x 8hrs x 2pilots = \$2,720/8 = \$340) Vendor only charges for two pilots
Confined Area Training - Mountain School (Flight School)	1	5.5	\$ 10,450.00	5.5 hours (\$1,900 x 5.5hrs)
Confined Area Training - Mountain School (Ground School)	1	2.5	\$ 425.00	2.5 hours (\$170 x 2.5hrs)

Note: Helistream Inc. offers discounts on ground school for class sizes of more than two pilots. Helistream will only charge for two pilots, the other six pilots are free if they attend training on the same day. The COUNTY plans to send eight pilots to ground school on the same day to take advantage of the discount. The Department anticipates flight instruction training to occur every four months and ground school to occur once a year.

Item Description	QTY	Training Hours	Cost per Pilot	Notes
Private Pilot Rotorcraft Helicopter Certification Course in R22 - Ground School	1	50	\$3,000.00	Ground, \$60/hr x 50 hrs = \$3,000
Private Pilot Rotorcraft Helicopter Certification Course in R22 - Flight School	1	55	\$15,900.00	Dual, \$300/hr x 45 hrs = \$13,500 Solo, \$240/hr x 10 hrs = \$2,400
Private Pilot Rotorcraft Helicopter Certification Course in R22 - Material & Fees	1	-	\$1,550.00	Books & Study Material = \$375 Written Exam Fee = \$165 Check Ride Fee = \$650 1.5 hrs Aircraft Rental = \$360
Commercial Pilot Certification Course in R22 - Ground School	1	40	\$2,400.00	Ground, \$60/hr x 40 hrs = \$2,400
Commercial Pilot Certification Course in R22- Flight School	1	60	\$17,400.00	Dual, \$300/hr x 50 hrs = \$15,000 Solo, \$240/hr x 10 hrs = \$2,400
Commercial Pilot Certification Course in R22- Material & Fees	1	-	\$1,175.00	Written Exam Fee = \$165 Check Ride Fee = \$650 1.5 hrs Aircraft Rental = \$360
Helicopter Instrument Rating in R22 - Ground School	1	40	\$ 2,800.00	Ground, \$70/hr x 40 hrs = \$2,800
Helicopter Instrument Rating in R22 - Flight School	1	45	\$15,075.00	Dual IFR, \$335/hr x 45 hrs = \$15,075
Helicopter Instrument Rating in R22 - Material & Fees	1	-	\$1,342.50	Books & Study Material = \$130 Written Exam Fee = \$165 Check Ride Fee = \$650 1.5 hrs Aircraft Rental = \$397.50
Helicopter Instrument Rating in R44 - Ground School	1	40	\$2,800.00	Ground, \$70/hr x 40 hrs = \$2,800
Helicopter Instrument Rating in R44 - Flight School	1	45	\$25,200.00	Dual IFR, \$560/hr x 45 hrs = \$25,200
Helicopter Instrument Rating in R44 - Material & Fees	1	-	\$1,785.00	Books & Study Material = \$130 Written Exam Fee = \$165 Check Ride Fee = \$650 1.5 hrs Aircraft Rental = \$840
Pilot Transition Training AS 350- Ground Instruction	1	12	\$2,160.00	Ground, \$180/hr x 12 = \$2,160
Pilot Transition Training AS 350 - Flight Instruction	1	5	\$9,500.00	Dual, \$1,900/hr x 5 hrs = \$9,500