File	No.	11	12	88
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Committee Item No. 2	_
Board Item No	

# **COMMITTEE/BOARD OF SUPERVISORS**

AGENDA PACKET CONTENTS LIST

Committee:	Budget and Finance Committee	<b>Date:</b> <u>January 4, 2012</u>
Board of Su	pervisors Meeting	Date
Cmte Boa	ırd	
	Motion Resolution Ordinance Legislative Digest Budget & Legislative Analyst F Ethics Form 126 Introduction Form (for hearing Department/Agency Cover Let MOU Grant Information Form Grant Budget Subcontract Budget Contract/Agreement Award Letter Application	js)
OTHER	(Use back side if additional sp	pace is needed)
	by: Victor Young by: Victor Young	Date: December 30, 2011 Date:
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An asterisked item represents the cover sheet to a document that exceeds 25 pages. The complete document is in the file.

NOTE:

[Waiving the Competitive Bid Requirements and Approving Modified Indemnification Clause for the Design of a Runway Safety Area Engineered Material Arresting System]

Ordinance waiving the competitive bid requirements of San Francisco Administrative Code Chapter 6, approving a modified indemnification clause pursuant to the requirements of Chapter 6, and authorizing the Airport Commission to award a contract to complete the design of a runway safety area engineered material arresting system.

> Additions are single-underline italics Times New Roman; deletions are strike-through italics Times New Roman. Board amendment additions are double-underlined; Board amendment deletions are strikethrough normal.

Be it ordained by the People of the City and County of San Francisco:

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Section 1. In order to comply with 14 CFR 139 relating to Runway Safety provisions and Public law 109-115 relating to funding, the San Francisco International Airport ("SFO") is required to make Runway Safety Area (RSA) enhancements to all four of its runways by December 31, 2015.

Section 2. As part of the RSA program, SFO is required to have designed and installed an engineered material arresting system (EMAS) for aircraft overruns in accordance with the Federal Aviation Administration (FAA) Advisory Circular No. 150/5220-22A.

Section 3. Presently, as stated in the Fact Sheet for Engineered material Arresting System, dated October 20, 2011, which is included in the Board of Supervisor's file to this Ordinance, the EMAS system developed by ESCO using crushable concrete is the only system that meets the FAA standard. SFO, therefore, must contract with ESCO for the design of its EMAS system.

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Section 4. ESCO has refused to agree to the City's standard indemnification clause in its contract, but has agreed to a modified indemnification clause which the San Francisco

Airport Commission and the City's Risk Manager has approved and recommended. The approved modified indemnification clause is attached to Resolution number 11-0238 from the San Francisco Airport Commission and is included, along with the Risk Manager's recommendation, in the Board of Supervisor's file to this Ordinance.

Section 5. Under the above-described circumstances, the San Francisco Board of Supervisors hereby determines that the City and County would best be served by waiving the competitive bid requirements under San Francisco Administrative Code Chapter 6 and approving the modified indemnification clause for the limited purpose of completing the design of an EMAS system at the San Francisco International Airport.

Section 6. The Airport Commission is hereby authorized to award a contract to ESCO to complete the work required to design the EMAS containing the modified indemnification clause and for a negotiated sum not to exceed \$420,000 The contract between the City and County of San Francisco and ESCO shall comply with all laws applicable to design and construction contracts. A copy of the negotiated contract is included in the Board of Supervisor's file to this Ordinance.

APPROVED AS TO FORM: DENNIS J. HERRERA, City Attorney

By:

Kathryn Luhe

Deputy City Attorney

## LEGISLATIVE DIGEST

[Waiving the competitive bid requirements and approving modified indemnification clause for the design of a runway safety area engineered material arresting system]

Ordinance waiving the competitive bid requirements of San Francisco Administrative Code Chapter 6, approving a modified indemnification clause pursuant to the requirements of Chapter 6, and authorizing the Airport Commission to award a contract to complete the design of a runway safety area engineered material arresting system.

## **Existing Law**

San Francisco Administrative Code, Chapter 6.40 requires that contracts for design professionals be competitively procured; the waiver of that requirement necessitates approval by the Board of Supervisors. Further, pursuant to section 6.42(C), the Board of Supervisors and the City's Risk Manager must authorize any abrogation or waiver of the City's standard indemnification clause.

## **Background Information**

The Federal Aviation Administration (FAA) requires that commercial service airports, such as the San Francisco International Airport ("SFO"), regulated under Code of Federal Regulations Part 139, have a Runway Safety Area ("RSA") where possible. Typically, an RSA is 500 feet wide and extends 1,000 feet beyond each end of the runway. This standard was adopted approximately 20 years ago and is deemed adequate to provide a safe area for aircraft overruns, undershoots, or veers off the side of the runway. Many airports, such as SFO, however, were built before the 1,000-foot RSA was adopted, and because of land constraints, it is not practicable for those airports to achieve the full standard RSA.

Starting in 1990, the FAA worked with, among other entities, the Engineer Arresting Systems Corporation (ESCO) of Logan Township, New Jersey to develop the technology and design for an engineered-material-arresting system ("EMAS") for airports having land constraints. The approved technology from ESCO uses crushable concrete placed in beds at the end of runways to stop aircraft overruns. The beds cause the tires of an aircraft to sink into the lightweight concrete, and the aircraft decelerates as it rolls through the material. (See FAA Fact Sheet—Engineered Material Arresting System (EMAS), dated October 20, 2011, made a part of the Board of Supervisor's File to this Ordinance.)

Having approved the new technology, the FAA, along with Public Law 109-115, requires airports to enhance their RSAs by December 31, 2015. The enhancements at SFO include installing an EMAS at both ends of runways 1L-19R and 1R-19L in accordance with the FAA Advisory Circular (AC) 150/5220-22A. While the FAA has purportedly conducted additional research and examined a number of alternatives to the ESCO EMAS, it currently deems that

the EMAS developed by ESCO using crushable concrete is the only system that meets the FAA standards, making ESCO a sole-source provider of the technology and design necessary to meet FAA requirements. (See FAA Fact Sheet—Engineered Material Arresting System (EMAS), dated October 20, 2011.) Further, because each EMAS must be individually designed for the specific site conditions, SFO must contract with ESCO to design the four EMAS systems to be installed by December 31, 2015. SFO deems that time is of the essence in contracting with ESCO and commencing the design for its four EMASs as other airports similarly situated will also be making demands on ESCO in order to meet the 2015 deadline.

In preparation for bringing this Ordinance seeking a waiver of the competitive bid requirements under Chapter 6 and in accordance with Airport Commission Resolution 11-0124, Airport staff negotiated a contract with ESCO to complete the design of the four required EMASs at SFO for a sum not to exceed \$420,000. A copy of the negotiated contract is included the Board of Supervisor's File to this Ordinance. During negotiations, ESCO refused to agree to the City's standard indemnification clause, but it did agree to a modified indemnification clause, which the Airport Commission and the City's Risk Manager approved and recommended. The approved, modified indemnification clause, along with the standard clause for comparison basis, is attached to Airport Commission Resolution 11-0238, which is included the Board of Supervisor's File to this Ordinance. Also included in the Board of Supervisor's File to this Ordinance is a copy of an email communication from the City's Risk Manager approving the modified indemnification clause.

Items 2	Department:	
Files 11-1288	San Francisco International Airport (Airport)	

## **EXECUTIVE SUMMARY**

## **Legislative Objectives**

• The proposed ordinance would (a) waive the competitive procurement requirements of San Francisco Administrative Code Chapter 6, (b) approve a modified indemnification provision, and (c) authorize the Airport Commission to enter into a sole source agreement with the Engineering Arresting Systems Corporation (ESCO) to design an engineered material arresting system for two of the Airport's four runways.

## **Key Points**

- The Federal Aviation Administration (FAA) requires airports to have a runway safety area extending 1,000 feet beyond the end of each runway, where possible. The San Francisco International Airport (Airport), which was built prior to this FAA requirement, is unable to develop 1,000 feet of runway safety areas beyond the end of two of the Airport's four runways due to space constraints.
- In order to develop an alternative to the 1,000 feet of runway safety area required at the end of each runway, the FAA worked with a private firm, Engineering Arresting Systems Corporation (ESCO), to design engineered material arresting systems, using crushable concrete placed in beds at the end of each runway. These beds of crushable concrete would break down on impact and cause an aircraft to slow down at a higher rate of deceleration than with brakes alone.
- In 2005, the FAA prepared a runway safety area Improvement Plan, which mandated that all commercial airports that do not have a runway safety area of 1,000 feet beyond the end of each airport runway install an engineered material arresting system by December 31, 2015. The FAA has only approved ESCO's engineered material arresting system, which is a proprietary design, for use in airports.
- Because the FAA has only authorized ESCO to design the engineered material arresting system required by the FAA, the Airport is requesting that the competitive procurement requirements under the City's Administrative Code be waived and that ESCO be awarded a sole source agreement to design the FAA-approved engineered material arresting system.
- ESCO uses information provided by the Airport in designing the engineered material arresting system, such as the type of aircraft, number of landings, and other related information. Because ESCO is not able to independently verify some of this information, ESCO has not agreed to sign the standard indemnification provision contained in City agreements. According to Ms. Kathryn Luhe, Deputy City Attorney, the proposed modified indemnification provision limits ESCO's liability for any problems which may result from the design of the engineered material arresting system if problems were the result of the Airport having provided inaccurate information to ESCO. According to Ms. Luhe, this modified indemnification provision is reasonable based on the unique situation and is necessary to enter into the agreement with ESCO.

## **Fiscal Impacts**

• The proposed ordinance and the related agreement between the Airport and ESCO for ESCO to design the engineered material arresting system is for a not-to-exceed amount of \$420,000. According to Mr. Jim Chiu, Manager of Civil Engineering at the Airport, the contract will be paid in three fixed amounts (see Table 1 on page 4) based on invoices submitted by ESCO as the work is completed. According to Mr. Chiu the cost of \$420,000 for the proposed agreement was negotiated based on similar systems designed for other airports in California. Airport funds, previously approved by the Board of Supervisors, will be used to pay \$420,000 for the design of the engineered material arresting system. However, the Airport will attempt to recuperate the cost of the ESCO agreement through future federal grant monies that are anticipated to be allocated to airports in order to meet the new FAA standards by building the engineered material arresting system.

#### Recommendation

Approve the ordinance.

## MANDATE STATEMENT / BACKGROUND

## **Mandate Statement**

San Francisco Administrative Code Chapter 6 states that professional services agreements should be competitively procured and that an indemnification provision be included to limit the liability to the City. The proposed ordinance would waive the competitive procurement requirements and approve a modified indemnification provision for the proposed agreement between the San Francisco International Airport (Airport) and Engineering Arresting Systems Corporation (ESCO), a private firm. Therefore Board of Supervisors approval is required to waive both the competitive procurement requirement and approve the proposed modified indemnification provision.

## **Background**

According to the Code of Federal Regulations (14 CFR 139) and the Federal Aviation Administration (FAA) Airport Design Advisory Circular 150-5300-13, the FAA has required airports to have a runway safety area extending 1,000 feet beyond the end of each runway and 500 feet wide where possible since 1989. The San Francisco International Airport (Airport), which was built before this FAA requirement, cannot develop 1,000 feet of runway safety area beyond the end of two of the Airport's four runways,Runwa y 1L-19R and Runway 1R-19L, due to space constraints including the San Francisco Bay in the northeast and the 101 Freeway in the southwest. Currently, the runway safety areas range from 156 Feet (Runway 19R) to approximately 1,700 feet in length (Runway 10R).

In 2005, the FAA prepared a runway safety area Improvement Plan, which mandated that all commercial airports that do not have a runway safety area extending 1,000 feet beyond the end of each runway must install an engineered material arresting system by December 31, 2015. This was codified in Public Law 119-105.

The FAA worked with ESCO to develop and design engineered material arresting systems, using crushable concrete placed in beds at the end of a runway, for use in airports with less than 1,000 feet of clearance beyond the runway. ESCO's engineered material arresting system, which is a propriety design, is the only such system which has been approved by the FAA for use in airports.

Of the Airport's four runways, the Airport is able to modify its two longer runways, Runway 10L-28R and Runway 10R-28L, to achieve 1,000 feet of runway safety area in compliance with FAA regulations. However, the two shorter runways, Runway 1L-19R and Runway 1R-19L, do not have sufficient space at the end of those runways, due to the San Francisco Bay in the northeast direction and the 101 Freeway in the southwest direction. Therefore, to meet the FAA's requirements, the Airport is entering into an agreement with ESCO to design four engineered material arresting system beds, one for each end of Runway 1L-19R and Runway 1R-19L.

The diagram, shown below, depicts Runways 1L-19R and 1R-19L and the proposed location of the engineered material arresting system beds.

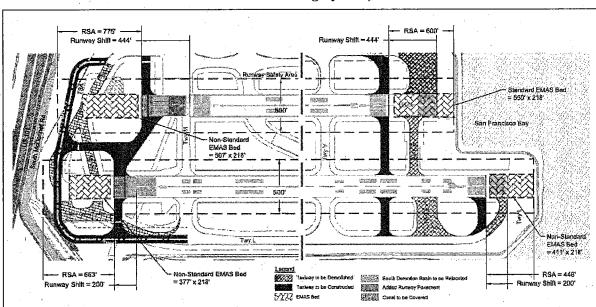


Diagram of Runways 1L-19R and 1R-19L and the Proposed EMAS (Engineered Material Arresting System) Beds

## **DETAILS OF PROPOSED LEGISLATION**

The proposed ordinance would (a) waive the competitive procurement requirements of San Francisco Administrative Code Chapter 6,(b) approve a modified indemnification provision, and (c) authorize the Airport Commission to award a sole source agreement to ESCO for the design of a runway engineered material arresting system at the not-to-exceed cost of \$420,000 for two of the Airport runways, 1L-19R and 1R-19L, in order to comply with FAA regulations.

The FAA worked with ESCO to develop and design engineered material arresting systems, using crushable concrete placed in beds at the end of a runway, for use in airports with less than 1,000 feet of clearance beyond the runway. These beds of crushable concrete would break down on impact and cause an aircraft to slow down at a higher rate of deceleration than with brakes alone. ESCO's engineered material arresting system, which is a propriety design, is the only such system that has been approved by the FAA for use in airports.

#### Sole Source

Because the FAA has determined that ESCO is the only firm that develops such engineered material testing systems that conform to FAA regulations, the Airport is requesting that the competitive procurement requirements be waived and that the agreement with ESCO for the design of the engineered material arresting system be awarded on a sole source basis.

## Indemnification Provision in the Agreement

ESCO uses information provided by the Airport in designing the engineered material arresting system, such as the type of aircraft, number of landings, and other related information. Be cause ESCO is not able to independently verify some of this information, ESCO has not agreed to sign the standard indemnification provision contained in City agreements. According to Ms. Kathryn Luhe, Deputy City Attorney, the proposed modified indemnification provision limits ESCO's liability for any problems which may result from the design of the engineered material arresting system if problems were the result of the Airport having provided inaccurate information to ESCO. According to Ms. Luhe, this modified indemnification provision is reasonable based on the unique situation and is necessary to enter into the agreement with ESCO.

Additionally, according to Ms. Luhe, the proposed agreement contains a copyright infringement provision due to the proprietary nature of ESCO's engineered material arresting system.

## FISCAL IMPACTS

The proposed ordinance and the related agreement between the Airport and ESCO for ESCO to design the engineered material arresting system is for a not-to-exceed amount of \$420,000. According to Mr. Jim Chiu, Manager of Civil Engineering at the Airport, the contract will be paid in three fixed amounts (see Table 1 on page 4) based on invoices submitted by ESCO as the work is completed. According to Mr. Chiu the cost of \$420,000 for the proposed agreement was negotiated based on similar systems designed for other airports in California. Airport funds, previously approved by the Board of Supervisors, will be used to pay \$420,000 for the design of the engineered material arresting system. However, the Airport will attempt to recuperate the cost of the ESCO agreement through future federal grant monies that are anticipated to be allocated to airports in order to meet the new FAA standards by building the engineered material arresting system.

The following table details the costs for the three fixed amounts to be paid to ESCO for the design of the engineered material arresting system for the Airport.

## Table: Costs of the Engineered Material Arresting System Design

		Stages of the Design	Cost
	Init	ial and Preliminary Arrestor Bed Design	
	1.	Performance Modeling Lump Sum Fee (4 Beds at \$75,000 each)	\$300,000
	2.	Preliminary Design Support Lump Sum Fee (4 Beds at \$17,500 each)	70,000
1	3.	Final EMAS Arrestor Bed Design Work	50,000
		TOTAL CONTRACTOR FEE	\$420,000

Airport funds will be used to pay for the design of the engineered material arresting system. However, the Airport will attempt to recuperate the cost of the agreement with ESCO through future federal grant monies that are anticipated to be allocated to airports in order to meet the FAA engineered material arresting system standards.

## **RECOMMENDATION**

Approve the proposed ordinance.



## San Francisco International Airport

November 18, 2011

Ms. Angela Calvillo Clerk of the Board **Board of Supervisors** City Hall 1 Dr. Carlton B. Goodlett Place, Room 244 San Francisco, CA 94102

File 111288

Subject:

Waiving the competitive bid requirements and approving modified indemnification, clause for the design of a runway safety area engineered material arresting system.

Dear Ms. Calvillo:

Attached for the Board of Supervisors approval is an ordinance waiving the competitive bid requirements of San Francisco Administrative Code Chapter 6, approving a modified indemnification clause pursuant to the requirements of Chapter 6, and authorizing the Airport Commission to award a contract to complete the design of a runway safety area engineered material arresting system ("EMAS") with Engineered Arresting Systems Corporation (ESCO).

Public Law 109-115 requires airport sponsors to enhance runway safety areas, in compliance with the Federal Aviation Administration (FAA) airport design standards. A major component of the enhancement at SFO includes designing an engineered material arresting system. Since ESCO is the only company certified by the FAA, an agreement with ESCO is needed for its staff to perform this sole source design work.

The following is a list of accompanying documents (five sets):

- Board of Supervisors Ordinance;
- City Attorney Legislative Digest
- **FAA EMAS fact sheet**
- Approved Airport Commission Resolution No. 11-0233 with attached indemnification clause;
- Approved Certificates of Liability
- Ethics Form SFEC-126 (Board of Supervisors and Mayor's Office);
- Approval as to form of contract from City Attorney's Office.

You may contact Cathy Widener, Government Affairs Manager at (650) 821-5023 regarding this matter.

Very truly yours.

Commission Secretary



## Fact Sheet – Engineered Material Arresting System (EMAS)

### For Immediate Release

October 20, 2011

Contact: Marcia Alexander-Adams

Phone: 202-267-3488

## **Background**

The Federal Aviation Administration (FAA) requires that commercial service airports, regulated under Part 139 safety rules and federally obligated, have a standard Runway Safety Area (RSA) where possible. The RSA is typically 500 feet wide and extends 1,000 feet beyond each end of the runway. The FAA has this requirement in the event that an aircraft overruns, undershoots, or veers off the side of the runway. Many airports were built before the 1,000-foot RSA length was adopted some 20 years ago, and it is not practicable to achieve the full standard RSA. This is due to obstacles such as bodies of water, highways, railroads, and populated areas or severe drop-off of terrain.

The FAA began conducting research in the 1990s to determine how to ensure maximum safety at airports where the full RSA cannot be obtained. Working in concert with the University of Dayton, the Port Authority of New York and New Jersey, and the Engineered Arresting Systems Corporation (ESCO) of Logan Township, NJ, a new technology emerged to safely arrest overrunning aircraft. EMAS uses crushable concrete placed at the end of a runway to stop an aircraft that overruns the runway. The tires of the aircraft sink into the lightweight concrete and the aircraft is decelerated as it rolls through the material.

## **Benefits of the EMAS Technology**

The EMAS technology improves safety benefits in cases where land is not available, or not possible to have the standard 1,000-foot overrun. A standard EMAS installation extends 600 feet from the end of the runway. An EMAS arrestor bed can be installed to help slow or stop an aircraft that overruns the runway, even if less than 600 feet of land is available.

## **Current FAA Initiatives**

The Office of Airports prepared an RSA improvement plan for the runways at approximately 575 commercial airports in 2005. This plan allows the agency to track the progress and to direct federal funds for making all practicable improvements, including the use of EMAS technology. Of the approximately 1,000 RSAs at these airports, an estimated 65 percent have been improved to full standards, and an estimated 87 percent have been improved to the extent practicable, not including the relocation of FAA-owned navigational equipment.

Presently, the EMAS system developed by ESCO using crushable concrete is the only system that meets the FAA standard. The FAA has conducted research through the Airport Cooperative Research Program (ACRP) that examined a number of alternatives to the existing approved system. ACRP Report 29, *Developing Improved Civil Aircraft Arresting Systems*, is available at the Transportation Research Board (http://www.faa.gov/exit/? pageName=Transportation%20Research%20Board&pgLnk=http%3A%2F%2Fwww%2Etrb%2Eorg%2FACRP%2FPublic%2FACRP%2Easpx) website.

Many of the EMAS beds installed prior to 2006 need periodic re-painting to maintain the integrity and functionality of the bed. The EMAS manufacturer has developed improved plastic seal coating for EMAS beds. This new coating should eliminate the need for periodic re-painting.

## **EMAS Arrestments**

To date, there have been seven incidents where EMAS has safely stopped overrunning aircraft with a total of 230 crew and passengers aboard those flights.

Date	Crew	Event
May 1999	30	A Saab 340 commuter aircraft overran the runway at JFK
May 2003	3	A Gemini Cargo MD-11 overran the runway at JFK
January 2005	3	A Boeing 747 overran the runway at JFK
July 2006	5	A Mystere Falcon 900 overran the runway at Greenville Downtown Airport in South Carolina
July 2008	145	An Airbus A320 overran the runway at ORD
January 2010	34	A Bombardier CRJ-200 regional jet overran the runway at Yeager Airport in Charleston, WVA
October 2010	10	A G-4 Gulfstream overran the runway at Teterboro Airport in Teterboro, NJ

## **EMAS Installations**

Currently, EMAS is installed at 58 runway ends at 40 airports in the United States, with plans to install 8 EMAS systems at 6 additional U.S. airports.

Airport	Location No. of Systems		Installation Date(s)	
JFK International	Jamaica, NY	2	1996 (1999)/2007	
Minneapolis-St. Paul	Minneapolis, MN	1	1999(2008)	
Little Rock	Little Rock, AR	2	2000/2003	
Rochester International	Rochester, NY	1	2001	
Burbank	Burbank, CA	1	2002*	
Baton Rouge Metropolitan	Baton Rouge, LA	1	2002	
Greater Binghamton	Binghamton, NY	2	2002	
Greenville Downtown	Greenville, SC	1	2003**	
() Bed replaced				

Widened in 2008

<sup>\*\*</sup> General aviation airport

<sup>+</sup> Reliever airport

Airport	Location	No. of Systems	Installation Date(s)		
Barnstable Municipal	Hyannis, MA	1	2003		
Roanoke Regional	Roanoke, VA	1	2004		
Fort Lauderdale International	Fort Lauderdale, FL	2	2004		
Dutchess County	Poughkeepsie, NY	1	2004**		
LaGuardia	Flushing, NY	2	2005		
Boston Logan	Boston, MA	2	2005/2006		
Laredo International	Laredo, TX	1	2006		
San Diego International	San Diego, CA	1	2006		
Teterboro	Teterboro, NJ	1	2006+		
Chicago Midway	Chicago, IL	4	2006/2007		
Merle K (Mudhole) Smith	Cordova, AK	1.	2007		
Charleston Yeager	Charleston, WV	1	2007		
Manchester	Manchester, NH	1	2007		
Wilkes-Barre/Scranton Intl.	Wilkes-Barre, PA	2	2008		
San Luis Obispo	San Luis Obispo, CA	2	2008		
Chicago-O'Hare	Chicago, IL	2	2008		
Newark Liberty International	Newark, NJ	1	2008		
Charlotte Douglas International	Charlotte, NC	1	2008		
St. Paul Downtown	St. Paul, MN	2	2008+		
Worcester Regional	Worcester, MA	2	2008/2009**		
Reading, Regional	Reading, PA	1	2009**		
Kansas City Downtown	Kansas City, MO	2	2009+/2010		

<sup>()</sup> Bed replaced

<sup>\*</sup> Widened in 2008

<sup>\*\*</sup> General aviation airport

<sup>+</sup> Reliever airport

Airport	Location	No. of Systems	Installation Date(s)
Smith Reynolds	Winston-Salem, NC	1	2010
New Castle County	Wilmington, DE	1	2010
Key West International	Key West, FL	1	2010
Arcata-Eureka	Arcata, CA	1	2010
Telluride Regional Palm Beach Republic Martin County Lafayette Cleveland Hopkins	Telluride, CO Palm Beach, FL Farmingdale, NY Stuart, FL Lafayette, LA Cleveland, OH	2 1 2 1 2	2010 2011 2011 2011 summer 2011 fall 2011

<sup>()</sup> Bed replaced

# Additional projects currently under contract

Airport	Location	No. of Systems	Expected Installation Date
Republic	Farmingdale, NY	1	summer 2011
Martin County	Stuart, FL	2	summer 2011
Augusta State	Augusta, ME	2	fall 2011
Teterboro	Teterboro, NJ	1	fall 2011
Groton New- London	Groton-New London, CT	2	fall 2011
Elmira-Corning Binghamton Boston Logan	Elmira, NY Binghamton, NYBoston, MA	1 1 1	summer 2012 summer 2012 (replacement bed) fall 2012 (replacement bed)

<sup>\*</sup> Widened in 2008

<sup>\*\*</sup> General aviation airport

<sup>+</sup> Reliever airport

## AIRPORT COMMISSION

CITY AND COUNTY OF SAN FRANCISCO RESOLUTION NO

RESOLUTION AUTHORIZING THE DIRECTOR TO REQUEST BOARD OF

ENGINEER	RED MATERIAL ARRESTING SYSTEM DESIGN
WHEREAS,	Runway Safety Area (RSA) enhancements must be made to all four runways at SFO in order to comply with Public law 109-115; and
WHEREAS,	as part of SFO's RSA program, an engineered material arresting systems (EMAS) for aircraft overruns must be designed and installed in accordance with the Federal Aviation Administration (FAA) Advisory Circular No. 150/5220-22A; and
WHEREAS,	the FAA requires that SFO contract for the EMAS design only with companies that the FAA has qualified; and
WHEREAS,	ESCO is the only company that the FAA has qualified as having demonstrated and validated a design method, material, and manufacturing process meeting the Advisory Circular requirements; and
WHEREAS,	ESCO is therefore the sole source for the design of the SFO EMAS; and
WHEREAS,	ESCO has refused to agree to the City's standard indemnification clause in its contract, but has agreed to a modified clause which the City's Risk Manager has approved and recommended; and
WHEREAS,	San Francisco Administrative Code, Chapter 6, requires that design professional agreements be competitively procured and waiver of such requirements necessitates approval by the San Francisco Board of Supervisors (Board); and
WHEREAS,	San Francisco Administrative Code, Chapter 6, requires that design professionals under contract with the City and County of San Francisco fully indemnify the City to the maximum extent provided by law and abrogation of such requirement requires a recommendation by the City's Risk Manager and the approval of the Board; now, therefore, be it
RESOLVED,	that the Commission requests the Board to adopt an ordinance waiving the competitive procurement requirements of San Francisco Administrative Code, Chapter 6, for the limited purpose of the Airport's entering into a sole-source contract with ESCO for the design of an EMAS; and, be it further
RESOLVED,	that the Commission requests permission of the Board to approve the attached indemnification clause in its sole-source contract with ESCO, in accordance with the City's Risk Manager's recommendation

at its meeting of

Thereby certify that the foregoing resolution was adopted by the Airport Commission OCT 2.5 2011 Jean Caramatti

# ATTACHMENT TO AIRPORT COMMISSION RESOLUTION RE MODIFIED INDEMNITY CLAUSE IN CONTRACT 8672A

## STANDARD INDEMNIFICATION CLAUSE:

Indemnification. Contractor shall indemnify and save harmless City and its officers, 16. agents and employees from, and, if requested, shall defend them against any and all loss, cost, damage, injury, liability, and claims thereof for injury to or death of a person, including employees of Contractor or loss of or damage to property, arising directly or indirectly from Contractor's performance of this Agreement, including, but not limited to, Contractor's use of facilities or equipment provided by City or others, regardless of the negligence of, and regardless of whether liability without fault is imposed or sought to be imposed on City, except to the extent that such indemnity is void or otherwise unenforceable under applicable law in effect on or validly retroactive to the date of this Agreement, and except where such loss, damage, injury, liability or claim is the result of the active negligence or willful misconduct of City and is not contributed to by any act of, or by any omission to perform some duty imposed by law or agreement on Contractor, its subcontractors or either's agent or employee. The foregoing indemnity shall include, without limitation, reasonable fees of attorneys, consultants and experts and related costs and City's costs of investigating any claims against the City. In addition to Contractor's obligation to indemnify City, Contractor specifically acknowledges and agrees that it has an immediate and independent obligation to defend City from any claim which actually or potentially falls within this indemnification provision, even if the allegations are or may be groundless, false or fraudulent, which obligation arises at the time such claim is tendered to Contractor by City and continues at all times thereafter. Contractor shall indemnify and hold City harmless from all loss and liability, including attorneys' fees, court costs and all other litigation expenses for any infringement of the patent rights, copyright, trade secret or any other proprietary right or trademark, and all other intellectual property claims of any person or persons in consequence of the use by City, or any of its officers or agents, of articles or services to be supplied in the performance of this Agreement.

## MODIFIED INDEMNIFICATION CLAUSE FOR ESCO CONTRACT 8672A

## 16. Indemnification

a. **General.** To the fullest extent permitted by law, Contractor shall assume the defense of, including costs and attorney fees (with legal counsel subject to approval of the City), indemnify and save harmless the City, its boards, commissions, officers, and employees (collectively "Indemnitees"), from and against any and all claims, loss, cost, damage, injury (including, without limitation, injury to or death of an employee of the Contractor or its subconsultants), expense and liability directly arising out of the negligence, recklessness, or willful misconduct of the Contractor, or anyone directly employed by them, or anyone that they control (collectively, "Liabilities").

In no event shall the Contractor indemnify the City, its boards, commissions, officers, and employees from the City's gross negligence or fault of its boards, commissions, officers, and employees, agents, representatives or employees.

Contractor has the right to rely upon the information and data, as supplied by the City, in carrying out the Services. Contractor has no duty to independently check, verify, or confirm the accuracy or completeness of the information or data provided as long as, in the professional opinion of the Contractor, such data is reasonable. However, Contractor will

promptly report to the city any apparent error or incompleteness in the information or data that it discovers, and seek confirmation or clarification of the questioned data before proceeding with its modeling.

- b. **Limitations.** No insurance policy covering the Contractor's performance under this Agreement shall operate to limit the Contractor's Liabilities under this provision. Nor shall the amount of insurance coverage operate to limit the extent of such Liabilities. The Contractor assumes no liability whatsoever for the sole negligence, active negligence, or willful misconduct of any Indemnitee or the contractors of any Indemnities.
- c. **Copyright infringement.** Contractor shall also indemnify, defend and hold harmless all Indemnitees from all suits or claims for infringement of patent rights, copyright, trade secret, trade name, trademark, service mark, or any other proprietary right of any person or persons in consequence of the use by the City, or any of its boards, commissions, officers, or employees of articles or services to be supplied in the performance of Contractor's services under this Agreement. Infringement of patent rights, copyrights, or other proprietary rights in the performance of this Agreement, if not the basis for indemnification under the law, shall nevertheless be considered a material breach of contract.



## CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 10/14/2011

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

C	ertificate holder in lieu of such endors	seme	nt(s)	•							
PRODUCER License # PA 56658 GMG Insurance Agency 60 Blacksmith Road Newtown, PA 18940.						CONTACT NAME: PHONE (A/C, No, Ext): (215) 497-9240 FAX (A/C, No): (215) 497-9263					
											E-MAIL ADDRESS:
						1101	1.0010.			a de la companya de l	AUUKE
					INSURER(S) AFFORDING COVERAGE INSURER A : Selective Insurance Company					19259	
11101	WALLED							urers' Association Insura	noo Co		
INSL	INSURED								ince Co	12262	
Engineered Arresting Systems Corporation						RC:Lloyds	of London	·			
2550 Market Street						RD:		·		<del> </del>	
	Aston, PA 19014		*	INSURE	RE:						
	<u> </u>				INSURE	RF:				-	
CO	VERAGES CER	TIFIC	CATE	E NUMBER:				REVISION NUMBER:		·	
IN C E	HIS IS TO CERTIFY THAT THE POLICIE IDICATED. NOTWITHSTANDING ANY RETIFICATE MAY BE ISSUED OR MAY XCLUSIONS AND CONDITIONS OF SUCH	EQUI PER POLI	REMI TAIN,	ENT, TERM OR CONDITION THE INSURANCE AFFORE LIMITS SHOWN MAY HAVE	N OF A	NY CONTRAC THE POLICE  REDUCED BY F	OT OR OTHER ES DESCRIB PAID CLAIMS.	DOCUMENT WITH RES	PECT TO	WHICH THIS	
INSR LTR	TYPE OF INSURANCE	INSR	WVD	POLICY NUMBER	100	POLICY EFF (MM/DD/YYYY)	(MM/DD/YYYY)	LII	MITS		
	GENERAL LIABILITY							EACH OCCURRENCE DAMAGE TO RENTED	\$	· · · · · · · · · · · · · · · · · · ·	
	COMMERCIAL GENERAL LIABILITY							PREMISES (Ea occurrence)	\$		
	CLAIMS-MADE OCCUR				•			MED EXP (Any one person)	\$	<del></del>	
						1		PERSONAL & ADV INJURY	\$		
	<u> </u>						,	GENERAL AGGREGATE	\$		
	GEN'L AGGREGATE LIMIT APPLIES PER:							PRODUCTS - COMP/OP AG		· · · · · · · · · · · · · · · · · · ·	
	POLICY PRO- JECT LOC								\$.		
	AUTOMOBILE LIABILITY							COMBINED SINGLE LIMIT (Ea accident)	\$	1,000,000	
Α	ANY AUTO			S 1980070		2/4/2011	2/4/2012	BODILY INJURY (Per person	) \$		
	ALL OWNED X SCHEDULED AUTOS							BODILY INJURY (Per accide	nt) \$		
	X HIRED AUTOS X NON-OWNED AUTOS							PROPERTY DAMAGE (Per accident)	\$		
	7.0100								\$		
	UMBRELLA LIAB OCCUR						*****	EACH OCCURRENCE	s	· · · · · ·	
	EXCESS LIAB CLAIMS-MADE							AGGREGATE	\$		
	DED RETENTION \$	1						/ CONTE	s		
	WORKERS COMPENSATION	<del>                                     </del>	<del> </del>				-	X WC STATU- TORY LIMITS E	H-		
В	AND EMPLOYERS' LIABILITY			2010002233492		8/5/2011	8/5/2012			1,000,000	
D	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED?	R EXCLUDED? N/A		2010002200402	0/3/2011	O/O/EO IE	E.L. EACH ACCIDENT	\$	1,000,000		
	(Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						***	E.L. DISEASE - EA EMPLOY		1,000,000	
	, lotte 2 T	<del> </del>	ļ	CA F20440000C		6/27/2044	6/07/0040	E.L. DISEASE - POLICY LIM	T   \$	· · · · · · · · · · · · · · · · · · ·	
С	Professional Liab	-		SAE201100006		6/27/2011	6/27/2012	Each Claim	• •	2,000,000	
				1.0							
			<u> </u>								
1) N emp	CRIPTION OF OPERATIONS / LOCATIONS / VEHIC ame as Additional Insured the City and bloyees. hat such policies are primary insurance eement, and that insurance applies sep	Cour	ity of	San Francisco, the Airpor	t Comr	nission and its	s members, a				
	and manifestation applied dep		.,	againer milet				=			
	DTIEICATE HOLDER	•		<u> </u>	CAN	CELL ATION					
CE	RTIFICATE HOLDER				CAN	CELLATION			<del></del>	•	
					THE	EXPIRATION	N DATE TH	ESCRIBED POLICIES BE EREOF, NOTICE WIL Y PROVISIONS.			

City and County of San Fransico

676 McDonnell Road San Francisco, CA 94128 **AUTHORIZED REPRESENTATIVE** 

ACORD
<u> </u>

## CERTIFICATE OF LIABILITY INSURANCE

DATE(MM/DD/YYYY) 10/13/2011

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Aon Risk Services Northeast, Inc.	The		CONTACT NAME:				
Stamford CT Office	inc.	PHONE (A/C, No. Ext):	(866) 283-7122	FAX (A/C. No.): (847) 953-53	90		
1600 Summer Street Stamford CT 06907-4907 USA		E-MAIL ADDRESS:	· · · · · · · · · · · · · · · · · · ·				
			INSURER(S) AFFORDING CO	VERAGE	NAIC#		
INSURED		INSURER A:	Travelers Property Cas	Co of America	25674		
Engineered Arresting Systems Corporation	ration	INSURER B:	XL Insurance America I	nc	24554		
2239 High Hill Road Logan Township NJ 08085 USA		INSURER C:					
		INSURER D:					
		INSURER E:	×				
		INSURER F:					
COVERACEO CER	TICICATE MUMBER, 5700441040	: A	DEVICION	NUMBED.			

COVERAGES	CERTIFICATE NOMBER: 07 00 17 12 130 1	REVIOION NOMBER:
THIS IS TO CERTIFY TH	IAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN	ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD
INDICATED, NOTWITHS	TANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY C	CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS
		HE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS,
EXCLUSIONS AND CON	DITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN F	REDUCED BY PAID CLAIMS. Limits shown are as requeste

ISR TR	TYPE OF INSURANCE	ADDL	SUBR	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP	LIMITS	3
В	GENERAL LIABILITY	I IVO		US00009928LI11A	07/01/2011	07/01/2012	EACH OCCURRENCE	\$1,000,00
	X COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	\$100,00
	CLAIMS-MADE X OCCUR .					,	MED EXP (Any one person)	\$5,00
				•			PERSONAL & ADV INJURY	\$1,000,00
	<del> </del>						GENERAL AGGREGATE	\$2,000,00
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG	\$2,000,00
	X POLICY PRO- JECT LOC							
Α .	AUTOMOBILE LIABILITY			Y-810-330D4855-TIL-11	06/30/2011	06/30/2012	COMBINED SINGLE LIMIT (Ea accident)	\$1,000,00
	X ANY AUTO				. '		BODILY INJURY ( Per person)	•
	ALL OWNED SCHEDULED		`				BODILY INJURY (Per accident)	
	AUTOS AUTOS NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	
В	X UMBRELLA LIAB X OCCUR			US00010618LI11A	07/01/2011		EACH OCCURRENCE	\$1,000,00
	EXCESS LIAB CLAIMS-MADE			SIR applies per policy ter	ms & condit	ions	AGGREGATE	\$1,000,00
	DED X RETENTION \$10,000	1						
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY					. *	WC STATU- OTH- TORY LIMITS ER	
	ANY PROPRIETOR / PARTNER / EXECUTIVE	1l			]	,	E.L. EACH ACCIDENT	
	OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	N/A					E.L. DISEASE-EA EMPLOYEE	
	If yes, describe under DESCRIPTION OF OPERATIONS below					-	E.L. DISEASE-POLICY LIMIT	
				***	1			
	CRIPTION OF OPERATIONS / LOCATIONS / VEHIC	l .	l	l ·	<u> </u>	l .		

RE: Contract #8672A. City and County of San Francisco, the Airport Commission and its members, and all of their officers, directors, and employees is included as Additional Insureds on the General Liability policy as required by written contract or agreement. The General Liability policy is primary insurance to any other insurance available to the additional insured's, with respect to any claims arising out of this Agreement, and that insurance applies separately to each insured against whom claim is made or suit is brought.

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#### **CANCELLATION**

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE

City and County of San Francisco Airport Commission 676 McDonnell Road San Francisco CA 94128 USA

AUTHORIZED REPRESENTATIVE

Aon Prish Services Northeast, Inc.

## City and County of San Francisco Airport Commission P.O. Box 8097 San Francisco, California 94128

\*\* Complete copy of document is located in File No. 1/1288

## Agreement between the City and County of San Francisco and

## **Engineered Arresting Systems Corporation**

#### Contract No. 8672A

This Agreement is made this 17th day of May, 2011, in the City and County of San Francisco, State of California, by and between: Engineered Arresting Systems Corporation, 2239 High Hill Road, Logan Township, New Jersey 08085, hereinafter referred to as "Contractor," and the City and County of San Francisco, a municipal corporation, hereinafter referred to as "City," acting by and through its Airport Commission or the Commission's designated agent, hereinafter referred to as "Commission."

#### Recitals

WHEREAS, the Commission wishes to enter into a design agreement with the Contractor for the design of four (4) Engineered Material Arresting Systems (EMAS) for the Runway Safety Area Program; and,

WHEREAS, Commission is authorized to enter into all contracts which relate to matters under its jurisdiction; and

WHEREAS, Commission awarded this contract to Contractor on May 17, 2011, pursuant to Resolution No.11-0124; and

WHEREAS, Human Rights Commission waived Chapter 14B requirements on June 10, 2011; and,

WHEREAS, Office of Contract Administration approved the sole source contract and waived 14B requirements on July 13, 2011; and,

WHEREAS, Board of Supervisors approved the sole source contract and modified indemnification contract language on INSERT DATE, pursuant to Resolution No. INSERT NUMBER; and,

WHEREAS, Contractor represents and warrants that it is qualified to perform the services required by City as set forth under this Contract; and,

WHEREAS, approval for this Agreement was obtained when the Civil Service Commission approved Contract number PSC #4109-10/11on June 6, 2011;

Now, THEREFORE, the parties agree as follows:

1. Certification of Funds; Budget and Fiscal Provisions; Termination in the Event of Non-Appropriation. This Agreement is subject to the budget and fiscal provisions of the City's Charter. Charges will accrue only after prior written authorization certified by the Controller, and the amount of City's obligation hereunder shall not at any time exceed the amount certified for the purpose and period stated in such advance authorization. This Agreement will terminate without penalty, liability or expense of any kind to City at the end of any fiscal year if funds are not appropriated for the next succeeding fiscal

# FORM SFEC-126: NOTIFICATION OF CONTRACT APPROVAL (S.F. Campaign and Governmental Conduct Code § 1.126)

City Elective Officer Information (Please print clearly.)	
	City elective office(s) held:
Members, Board of Supervisors	Members, Board of Supervisors
Contractor Information (Please print clearly.)	
Name of contractor:	
Engineered Arresting Systems Corporation (ESCO)	
Please list the names of (1) members of the contractor's board of direct	ors; (2) the contractor's chief executive officer, chief
financial officer and chief operating officer; (3) any person who has an	
any subcontractor listed in the bid or contract; and (5) any political con	nmittee sponsored or controlled by the contractor. Use
additional pages as necessary.	
Community III on Day 1994	
Spencer M. Hoos, President Peter T. Mahal, Executive Vice President	
Kevin Quan, Director of US sales and Marketing	
Ecvin Quant, Director of 0.5 saics and marketing	
Contractor address:	
2239 High Hill Road, Logan Township, New Jersey, 08085	
	Amount of contract:
	\$420,000.00
Describe the nature of the contract that was approved: Public Law 109-	
Comments: Requesting Board of Supervisors to waive competitive be indemnification clause for sole-source contract with ESCO.	idding requirements and agree to modified
his contract was approved by (check applicable):	
the City elective officer(s) identified on this form	
	D 1.00
a board on which the City elective officer(s) serves: San Franc	ISCO Board of Supervisors Name of Board
the board of a state agency (Health Authority, Housing Authority	
Board, Parking Authority, Redevelopment Agency Commission, I	**
Development Authority) on which an appointee of the City elective	e officer(s) identified on this form sits
Print Name of Board	
Filer Information (Please print clearly.)	
Name of filer:	Contact telephone number:
Angela Calvillo, Clerk of the Board	(415) 554-5184
Address:	E-mail:
City Hall, Room 244, 1 Dr. Carlton B. Goodlett Pl., San Francisco, CA	
	J Total Dominion Supervisors
	2000 Long Long Long Long Long Long Long Long
Signature of City Elective Officer (if submitted by City elective officer)	
Signature of City Elective Officer (if submitted by City elective officer)	Date Signed
Signature of City Elective Officer (if submitted by City elective officer)	
Signature of City Elective Officer (if submitted by City elective officer)  Signature of Board Secretary or Clerk (if submitted by Board Secretary)	Date Signed

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		Maria Maria		