

2003-11-24 17:58



# Terrorist Identification

ACUMEN – An Advanced Methodology and Technology  
to Flag Potential Terrorist Actions

2405685621

May 3, 2002  
Roy Nichols  
Torch Concepts, Inc.

ON A P 4



## Torch Concepts Corporate Overview



- Small Business – focused on products and services
- Incorporated in 2000
- Two Locations
  - Huntsville, Alabama – Corporate Headquarters
  - Boston, Massachusetts
- Highly Skilled Technical Expertise
- Strong Intellectual Property
- Seasoned Responsive Executive Management Team
- Exceptional Past Performance

April 30, 2002

2

2003-11-24

17:58

2405685621

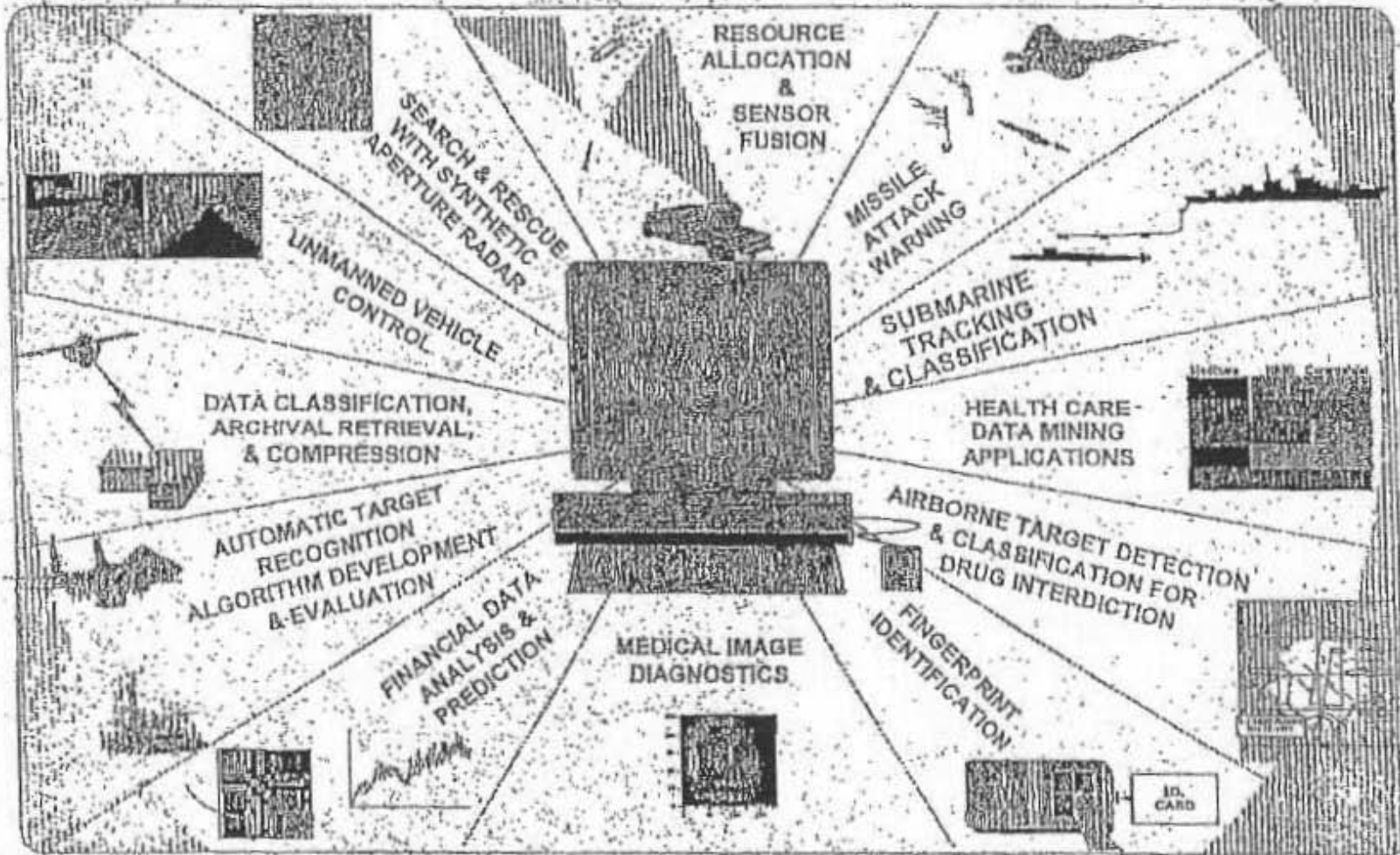
ON A P 5

# ACUMEN Is A Mature Technology

- Applied Successfully to a Variety of Problems -



03/24/2004 WED 11:57 FAX 208 859 2388 AVE ALBUQUERQUE  
 2003-11-24 17:58  
 2405685621



April 30, 2002





# Employing Transactions Across Broad Spectrum - Deviations From Normal Behavior Point To Terrorists -



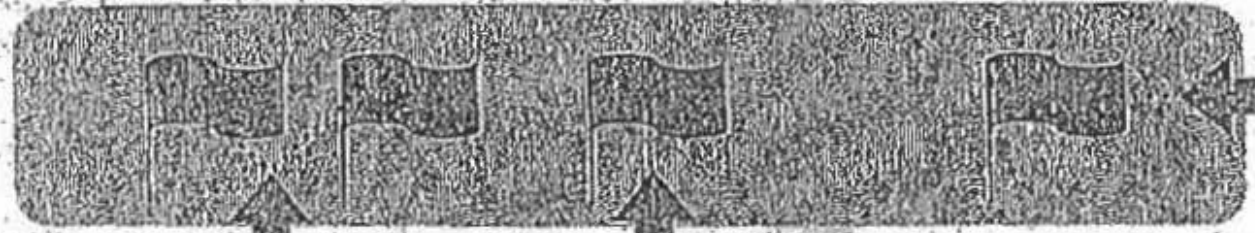
2003-11-24 18:01

03/24/2004 WED 11:58 FAX 268 880 2388 RUI NIUMULS

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DN A P 14

Deviations Represent Suspect Actions or Flags!



Transportation Transactions

Investment Transactions

Biochemical Transactions

- DIA
- CIA
- FBI
- INS
- FAA
- FAA
- Data Bases

Shipping Airlines Trucking

Traveling

Licensing

- Federal
- State
- Local
- International



2003-11-24 18:01

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ON.A P 15



**Proof of Principle**  
Test for Airline Passenger Screening

# Prove the Concept for Airline Ticketing Transactions

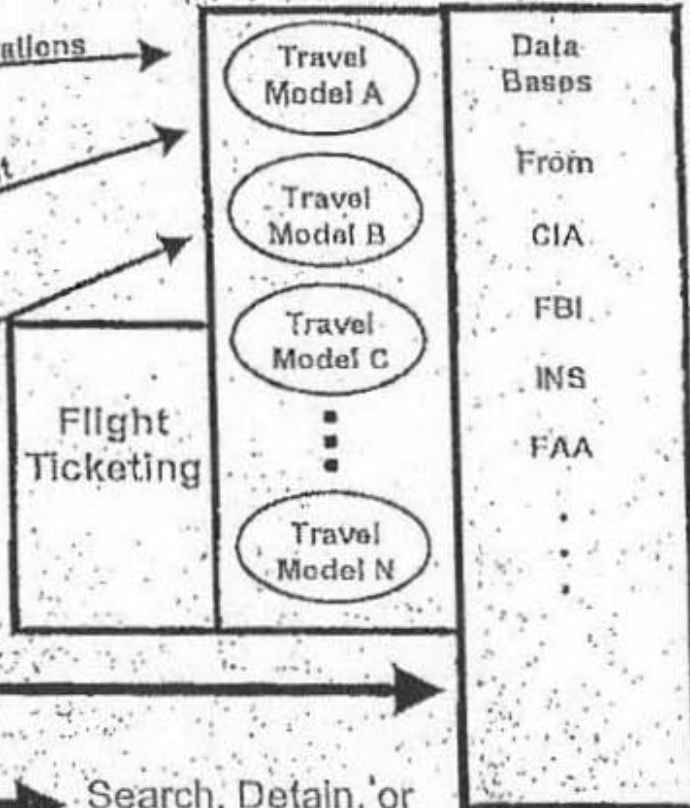
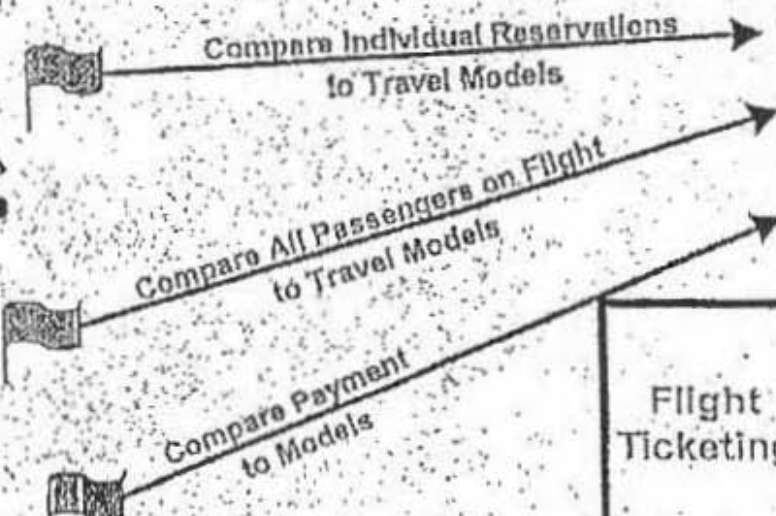
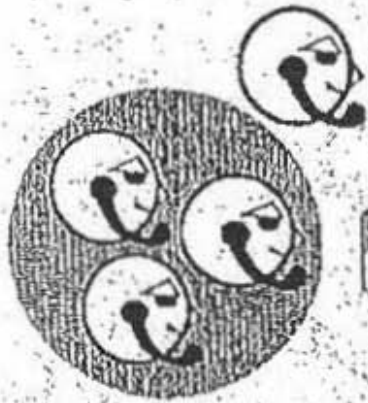
## - The Risk Assessment Process -



03/24/2004 WED 11:59 FAX 259 885 2368 ROY NICHOLS  
 2003-11-24 18:02  
 2405685621  
 ON A P 16/35  
 0003/944



### I. The Reservation



### II. The Payment

\$\$\$

### III. Pre-Flight Airline Check

(based on risk)

### IV. Passenger Check-In and Security Checks

Search, Detain, or Pass Through

Consolidate with Other Transactions



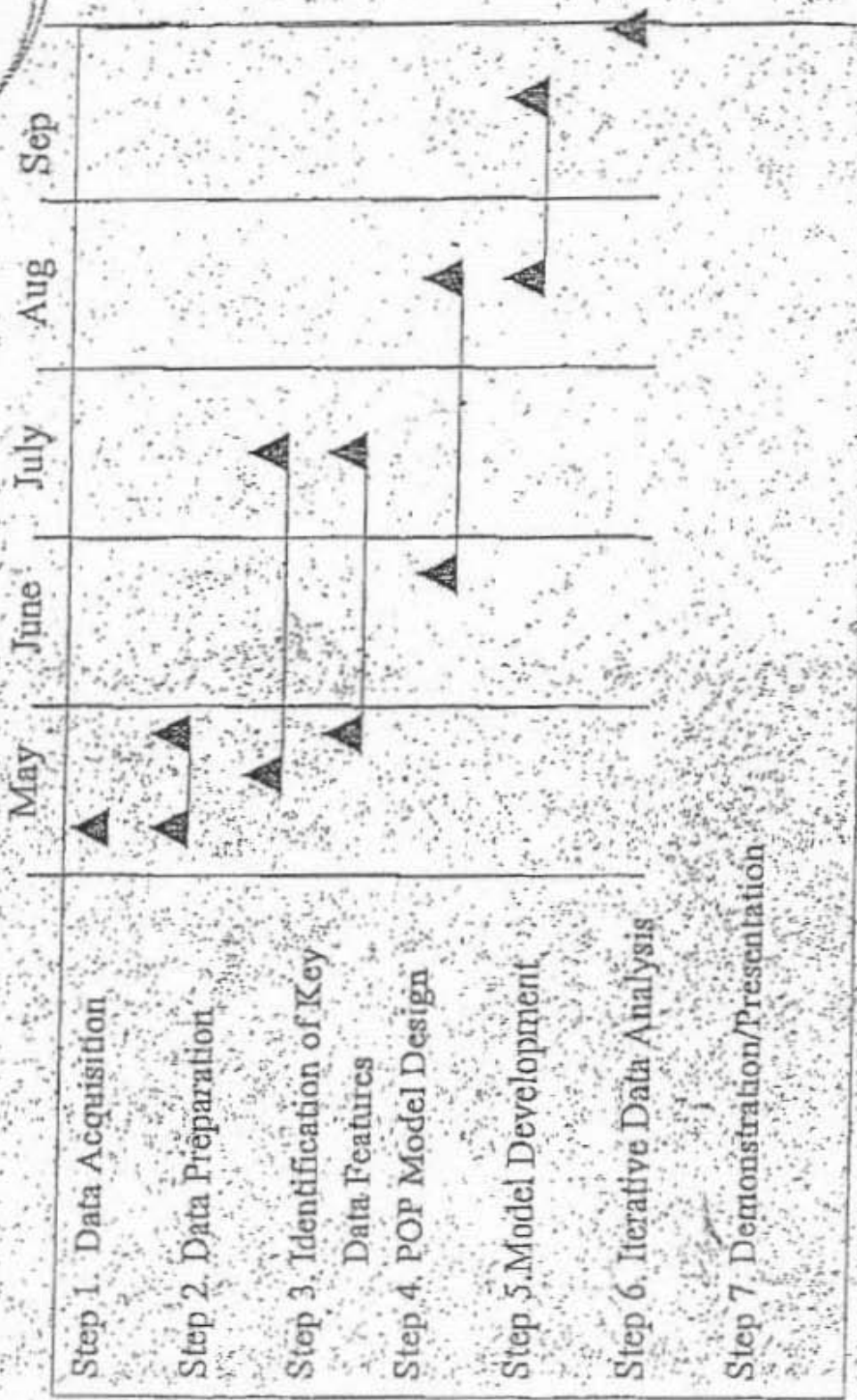
# The "Terrorist Flagging" Program

## - Phased Approach to Block 1 Development -



- |           |   |
|-----------|---|
| Phase I   | <p>"Terrorist flagging" proof of principle (2 to 3 months)</p> <ul style="list-style-type: none"><li>• Identify and develop data base (adequate for POP demonstration) by working with domain experts</li><li>• Demonstrate that logic identifies important terrorist actions and other factors</li></ul> |
| Phase II  | <p>Develop Block I logic for "flagging terrorists"</p> <ul style="list-style-type: none"><li>• Identify and develop comprehensive data base</li><li>• Develop Block I "terrorist flagging" logic and demonstrate daily operation (a minimum of one interaction with experts)</li></ul>                    |
| Phase III | <p>Develop and demonstrate Block I "terrorist flagging" software</p> <ul style="list-style-type: none"><li>• Develop "terrorist flagging" software</li><li>• Demonstrate daily operation</li></ul>  |

# Phase 1 - POP







## Security Enhancement Demonstration

4650 Whitesburg Drive, Suite 101  
Huntsville, Alabama 35802  
[www.torchconcepts.com](http://www.torchconcepts.com)  
256-885-0145  
Fax 256-885-2368

June 4, 2002

## Torch Concepts Corporate Overview



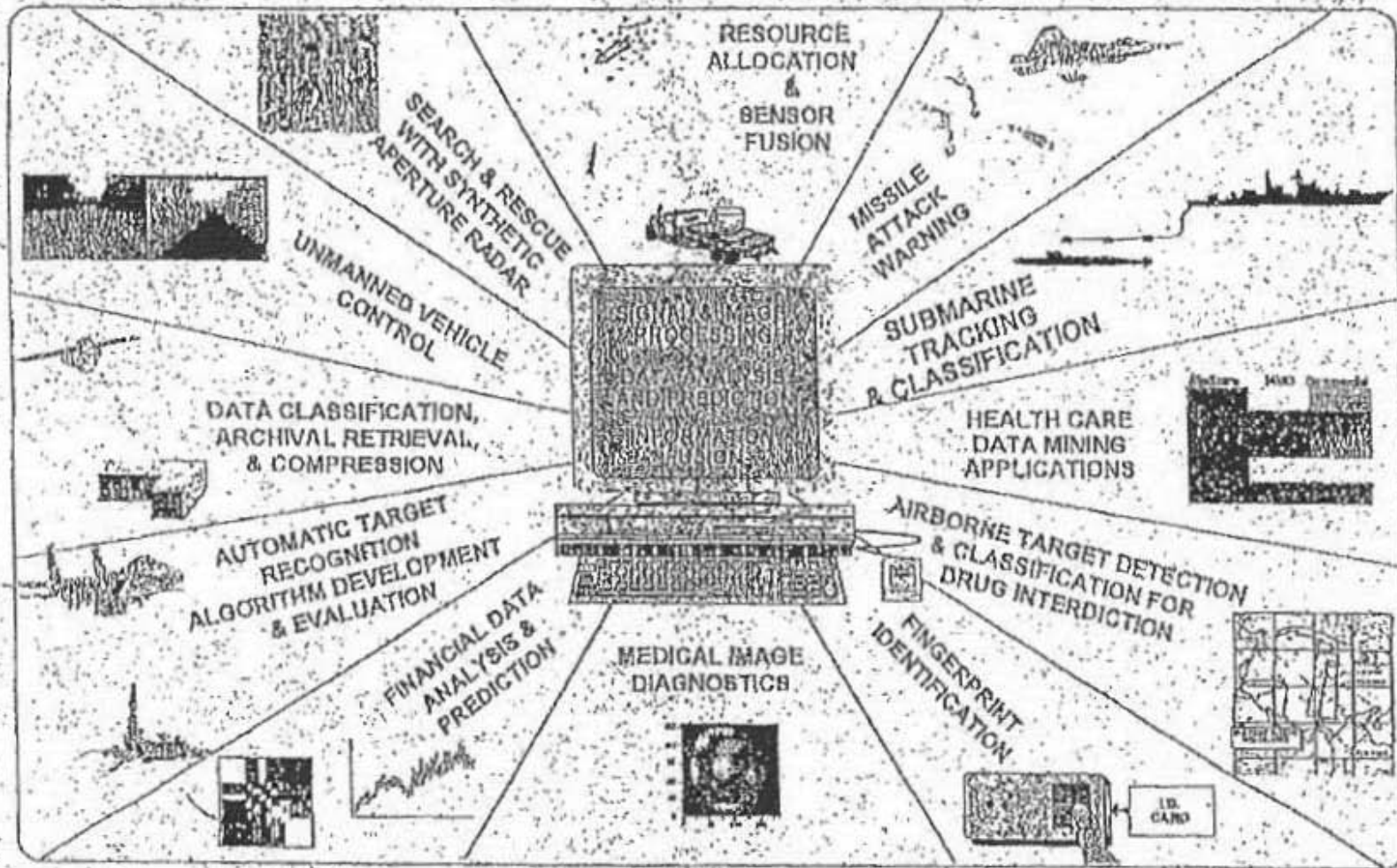
- **Small Business – focused on products and services**
- **Incorporated in 2000**
  - Huntsville, Alabama – Corporate Headquarters
  - Boston, Massachusetts
- **Highly Skilled Technical Expertise**
- **Strong Intellectual Property**
- **Seasoned Responsive Executive Management Team**
- **Exceptional Past Performance**
- **High Level Government Security Clearances**

03/28/2002 11:10 AM FAX: 256-548-1111



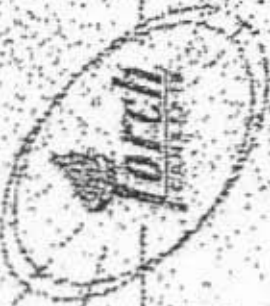
# ACUMEN Determines Unique Patterns In Data

- This Mature Technology Has Been Applied to Many Problems -



March 27, 2002





# - Counter Terrorism Initiative -

June 4, 2002

*Breaking the Knowledge Barrier*

## Security Enhancement Program Objective



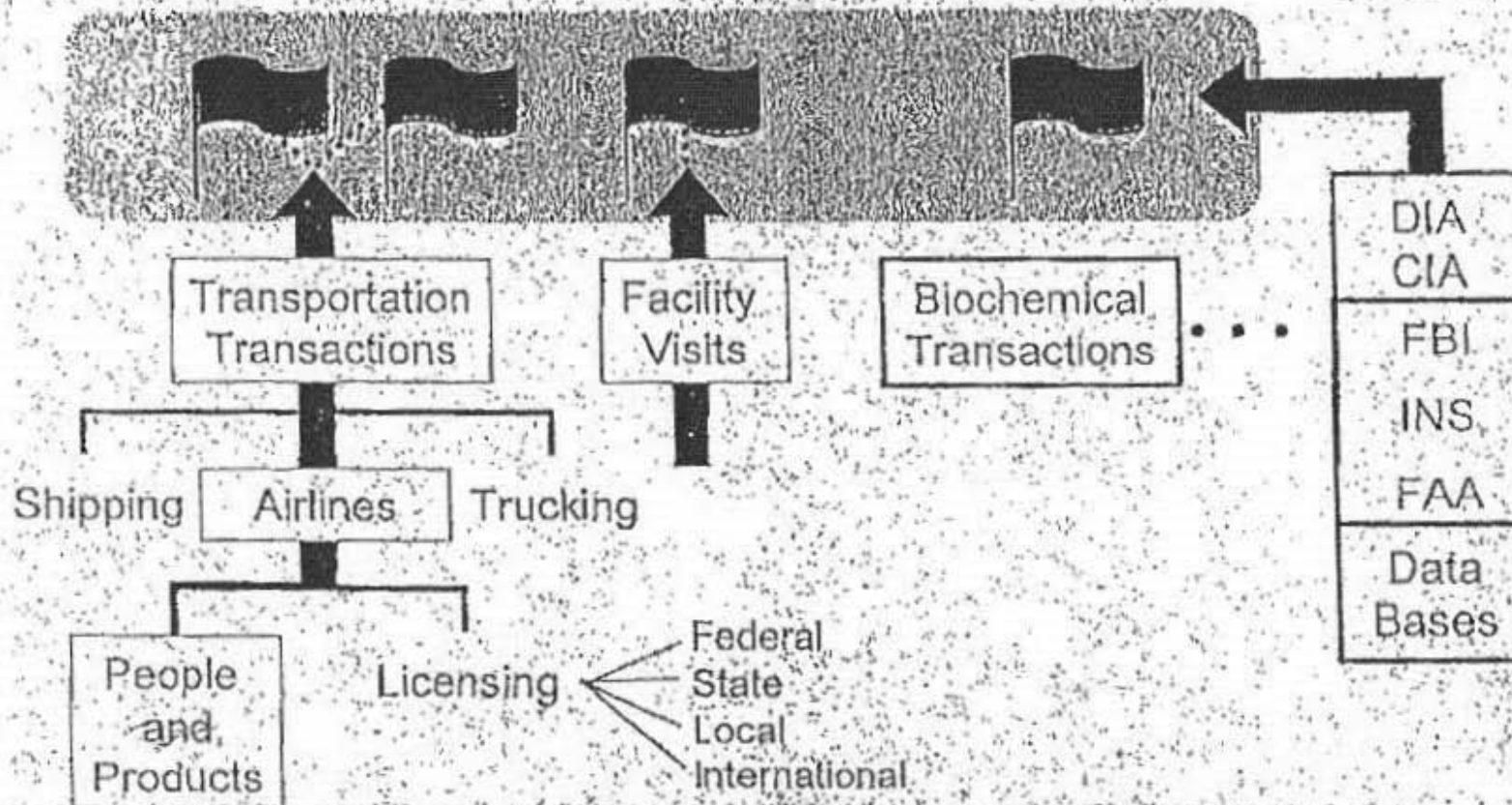
Develop Logic and Software Capable of Identifying Potential Terrorist Actions by Detecting Those Actions Which Are Outside the Norm of Daily Activity. Assist Security Experts (1) By Flagging Potential Terrorist Actions, and (2) In Identifying Necessary Data and Operational Steps to Enhance Security.



# Employing Transactions Across Broad Spectrum



Deviations Represent Suspect Actions or Flags!



**Find a "Needle in a haystack" without knowing what the needle looks like!**

03/24/2004 WED 13:03 FAX 208 850 2300 X01 N140003



## The Demonstration Approach

- For Security Enhancement of Military Facilities



- Conduct a Proof-of-Principle Demonstration which extracts potential terrorist action from a large complex data base, preferably relying on ground truth to verify capability
- Address an application where ground truth is available; e.g.,
  - Airline passenger screening to identify risk level
  - INS database screening to identify suspect patterns

# Proof-of-Principle Demonstration - Risk Assessment for Passenger Screening -



## The Travel Process

## The Airline

### I. The Reservation



### II. The Payment \$\$\$

### III. Pre-Flight Airline Check (based on risk)

### IV. Passenger Check-In and Security Checks

Compare Individual Reservations  
to Travel Models

Compare All Passengers on Flight  
to Travel Models

Compare Payment  
to Models

Flight  
Ticketing

Travel  
Model A

Travel  
Model B

Travel  
Model C

Travel  
Model N

Data  
Bases

From

CIA

FBI

INS

FAA

Search, Detain, or  
Pass Through

Consolidate with Other Transactions



03/24/2004 10:11 AM



# The Security Enhancement Phased Approach to Development Software



## Phase I "Terrorist flagging" proof of principle ( 2 to 3 months)

- Identify and develop data base (adequate for POP demonstration) by working with domain experts
- Demonstrate that logic identifies important terrorist actions

## Phase II Develop logic for enhancing base security

- Identify critical base security issues
- Identify and develop comprehensive data base
- Develop "flagging" logic and demonstrate daily operation

## Phase III Develop and demonstrate software



## What We Need for the Demonstration

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- Agreement with TSA/DOT to address airline passenger screening
- An Airline Data Base including all available data regarding passenger reservation, billing, payment, check-in, and security checks
  - Preferably one which includes ground truth data
  - Passenger names not critical as long as identification number is provided
  - Specifics on credit not critical; would like to differentiate between credit, check, cash, etc.
- A CAPPS II an airline employee interface (domain experts) to insure problem and solution understanding
- In return
  - TSA/DOT and DOD would be joint beneficiaries of contract deliverables
  - Torch Concepts would treat the data and results at an acceptable security level

The Army

bb



4650 Whitesburg Drive  
Suite 101  
Huntsville, Alabama 35802  
phone 256.885.0145  
fax 256.885.2388

www.torchconcepts.com  
roark@torchconcepts.com

Bill Roark  
President



4650 Whitesburg Drive  
Suite 102  
Huntsville, Alabama 35802  
phone 256.885.0168  
fax 256.885.2388

www.torchconcepts.com  
nichols@torchconcepts.com

Roy Nichols  
Co-Chairman of the Board

2003-12-04 13:47

2405685621

ON, A P. 2

To: The Army

From: Roy Nichols

Date: June 7, 2002

Subject: Inputs for TSA agreement

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bb

Steve, attached are the terms I promised you:

- 1.0 Program Scope Considerations
- 2.0 Proof-of-Principle Demonstration
- 2.1 Data Element Requirements
- 2.2 Data Volume Requirements

1.0 Program Scope Considerations -Security Enhancement of Military Facilities -

The Army has contracted with Torch Concepts to develop software to enhance the security of military facilities. Security has always been a concern, but the recent Mid-East terrorist actions and the 9-11 attack on the Pentagon have raised this concern to a new level.

Issues include:

- Transportation Transactions - Deliveries of people and products by air, ship, truck and mail
- Base Visitation
- Communications
- Intrusion of Information Systems

Each of these issues have one thing in common, specifically the lack of apriori understanding of potential terrorist actions; i.e. there is no way that one could predict the means by which intrusion of an information system would be used for terrorist purpose.

Torch Concepts has proposed a unique technology, termed ACUMEN, which has the potential to identify terrorist actions with minimal or no apriori understanding. ACUMEN's approach is to identify and characterize normal transactions, and then to treat deviations from this norm as potential terrorist actions. By flagging deviations from multiple types of transactions and then examining their correlation, Torch believes that analysts will have a much better chance of counter terrorism.

To determine the feasibility of this approach, Torch will conduct a Proof-of-Principle demonstration. The contractor has recommended that the demonstration be conducted on "airline passenger screening", primarily because of the availability of ground truth data. The ACUMEN technology would be employed to identify and characterize "all" unique travel modes by evaluating a large



2003-12-04 13:47

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database, potentially as much as several years of data on airline reservations, billing payment, check-in and security check.

Once the Proof-of-Principle demonstration is proved successful, the technology would be considered for one or more facets of security enhancement for military facilities.

## 2.0 Proof-of-Principle Demonstration for Security Enhancement of Military Facilities

The following paragraphs address an estimate of passenger data requirements to successfully conduct the Proof-of-Principle demonstration of airline passenger screening.

A research effort, such as the subject program, typically delivers these data requirements as one of the program outputs. Indeed the output would provide the relationship between data requirements and the successful identification of terrorist action. However, to facilitate the timely transfer of data, Torch provides the following admittedly coarse estimates of data requirements.

The first paragraph, which follows, addresses data elements, labeling them either important or desirable. The second paragraph, which follows, addresses the volume of data required.

### 2.1 Data Element Requirements

Data types are labeled as either important or desirable. The "important label" indicates that the data element's availability will have a significant effect on the ability to identify terrorist actions. Note that twenty-seven (27) elements have been placed by this category. Clearly not all of these elements are required. It is estimated that approximately ten (10) of them will be required. The "desirable label" indicates that the data element's availability will have a positive effect. Our guess is that several "desirable" elements would provide a benefit comparable to that provided by an "important" element.

2003-12-04 13:49

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ON.A P.11

~~June 03 2002~~  
~~Monday~~

2:00 PM - 3:00 PM

LED - Data exchange meeting -- WHCC

~~June 04 2002~~

8:00 AM - 8:00 AM

Do Weekly Rpt for [redacted] Meeting & Forward  
Send rpt to [redacted]

b(6)

10:00 AM - 12:00 PM

CAPPS II Go Team meeting and Brainstorm -- 6432  
Folks;

[redacted]

ws)

1:00 PM - 3:00 PM

Torch Meeting -- Rm 10408

From: [redacted]  
Sent: Thursday, May 30, 2002 5:10 PM  
To: [redacted]  
Subject: FW: CAPPSII

b(6)

FYI

The meeting with Torch has been set. If any of you are interested feel free to attend.  
[redacted]

-----Original Message-----  
From: [redacted]  
Sent: Thursday, May 30, 2002 3:25 PM  
To: [redacted]  
Subject: RE: CAPPSII

b(6)

[redacted]

June 04, 2002 Continued  
Tuesday

[Redacted]

—Original Message—

From: [Redacted]  
Sent: Thursday, May 30, 2002 11:09 AM  
To: [Redacted]  
Cc: [Redacted]  
Subject: RE: CAPPSII

b(6)

[Redacted] Torch Concepts has requested a meeting with me through some Congressional contacts and the Congressional Affairs office has been attempting to arrange such a meeting. We have agreed to meet with them.

b(3)

[Redacted]

b(3)

b(6)

[Large Redacted Block]

[Redacted]

195



2003-12-04 13:49

2405685621

ON A P 13/19

June 04, 2004 Continued

b5)



b6)



4:00 PM - 5:00 PM

Updated CAPPS II update -- GSA 3309  
[redacted] will present.

Participants will need an active security clearance to attend.

June 05, 2004

11:30 AM - 1:30 PM

Project Status Meeting - Room 4027 GSA Bldg - [redacted]  
Due to conference room conflicts, please note the time change of the Project Status Meeting -  
Meeting will begin at 11:30am vice 12:00pm

Thanks  
[redacted]

12:00 PM - 2:00 PM

[redacted] Meeting

b6)

12:00 PM - 1:30 PM

Weekly PM Project Status Meetings -- TBD  
The room number will be sent out every Tuesday before the meeting.

Thanks,  
[redacted]

June 07, 2004

All Day

Meeting with [redacted] -- Nassir 6432-D  
9:00 meeting.



Kelly, Nuala

---

From: Foster, Jason (Govt Affairs) [Jason\_Foster@govt-aff.senate.gov]  
Sent: Friday, February 13, 2004 4:04 PM  
To: Kelly, Nuala  
Subject: RE: Document Request



JetBlue - TSA ltr to  
Hutchins...

FYI.. this just went out. It's a limited request for starters -- just communications from TSA to JetBlue.

-----Original Message-----

From: Kelly, Nuala [mailto:Nuala.Kelly@DHS.GOV]  
Sent: Thursday, February 12, 2004 5:09 PM  
To: Foster, Jason (Govt Affairs)  
Subject: RE: Document Request

That's cool. It'll be a race for me to get the report out before you request the documents!

Seriously, though, we should talk about what they have.

Nuala O'Connor Kelly  
Chief Privacy Officer  
Department of Homeland Security  
Washington, DC 20528  
(202) 772-9848 (voice)  
(202) 772-5036 (fax)

-----Original Message-----

From: Foster, Jason (Govt Affairs) [mailto:Jason\_Foster@govt-aff.senate.gov]  
Sent: Thursday, February 12, 2004 4:49 PM  
To: Kelly, Nuala  
Subject: Document Request

No problem. Heads up - we may be sending a joint letter with Lieberman (and possibly Levin) seeking some documents from TSA about its role in the JetBlue matter. Give me a call (224-2186) if you'd like to discuss it before it goes out.

Cordially,  
Jason A. Foster  
Senior Counsel  
Committee on Governmental Affairs  
United States Senate

phone: (202) 224-4751  
fax: (202) 224-9603

-----Original Message-----

From: Kelly, Nuala [mailto:Nuala.Kelly@DHS.GOV]  
Sent: Wednesday, February 11, 2004 7:08 PM  
To: Foster, Jason (Govt Affairs)  
Subject: FW: GAO report on CAPPS II and the AP report

Thanks for including me today--it was a huge help.

Well, it looks like someone has the GAO report...

Nuala O'Connor Kelly  
Chief Privacy Officer  
Department of Homeland Security  
Washington, DC 20528  
(202) 772-9848 (voice)  
(202) 772-5036 (fax)

#### Still Lots of Work to Be Done on Passenger Screening Plan, Congressional Investigators Say

By Leslie Miller Associated Press Writer.....

Published: Feb 11, 2004

WASHINGTON (AP) - The government has not adequately addressed security and privacy concerns in its plan to use personal information to rank airline passengers as potential security threats, congressional investigators say.

The Bush administration wants to begin testing a new program this spring and put it in place during the summer. The findings by the General Accounting Office, contained in a draft report obtained Wednesday by The Associated Press, could delay the Computer-Assisted Passenger Prescreening System, or CAPPS II.

Congress said the government could not spend any money for testing or putting the program in place until the GAO reported that eight specific concerns were satisfied. Those include assurances the system is accurate, that the technology ensures privacy, that safeguards exist to prevent abuse and that passengers who think they were mistakenly identified as a threat have some recourse.

The investigators did not recommend whether the program should go forward, but said Transportation Security Administration "has not completely addressed" seven of the eight issues. The exception was creation of an oversight board to monitor the system.

The report said the agency "has not yet completed important system planning activities." The program would screen all passengers by checking information such as name, address and date of birth against commercial and government databases. Each passenger would be given one of three color-coded ratings.

Suspected terrorists and violent criminals would be designated as red and forbidden to fly. Passengers who raise questions would be classified as yellow and would receive extra security screening. The vast majority would be rated as green and be allowed to go through routine screening.

Privacy advocates say the program infringes on civil liberties and may label innocent people as security threats.

The report said privacy concerns remained unresolved in part because the system's development was delayed. One reason for that is airlines do not want to turn over information about passengers until the carriers are sure privacy and security concerns are addressed.

Homeland Security Undersecretary Asa Hutchinson said recently that the program is such a priority that the government will compel airlines to share passenger information. He said he was confident that privacy concerns can be resolved.



2003-12-04

13:51

2405685621

ON.A P.18/19

b(6)

118

[REDACTED]

From: roarkb@torchconcepts.com  
Sent: Tuesday, December 02, 2003 3:36 PM  
To: [REDACTED] Jbb  
Cc: [REDACTED]  
Subject: passenger data

To all:

We have just established a point of contact with Axiom to facilitate the transfer of the jetBlue data. We need to do the necessary nondisclosures and paperwork and then the data transfer can occur. Since we have had earlier discussions with Axiom, it may be possible to use the previous paperwork we had in place with Axiom, if so, this could go quickly. We will keep you advised of the progress.

Thanks for your help.

Bill Roark  
Torch Concepts, Inc.

246

110

From: [Redacted]  
 Sent: Wednesday, July 31, 2002 10:01 AM  
 To: 'Bob.DeFrancesco@jetblue.com'  
 Cc: [Redacted]  
 Subject: Concept of Operations - PNR Data usage

b(6)

Bob:

Thank you so much for your quick response and participation in support of this critical project involving base security. We at the TSA are working with DOD to support this effort. In conjunction with this effort, attached plz find the letter of request [which includes phone numbers] regarding PNR data being provided to Torch Concepts for this proof of concept.

If you have any question, plz do not hesitate to call. DOD is looking to kick this project off ASAP for all the obvious reasons, so anything you can do to help expedite the movement of the data between Axiom and Torch would be greatly appreciated.

[Redacted] be



DOD

sent with Jet Blt

247

No attachment included