

# The annual surveillance program





**CE-7**

## **Surveillance Obligations**

*Annex 19 Appendix 1*



The State shall implement documented surveillance processes, by defining and planning inspections, audits, and monitoring activities on a continuous basis, to proactively assure that aviation license, certificate, authorization and/or approval holders continue to meet the established requirements. This includes the surveillance of personnel designated by the Authority to perform safety oversight functions on its behalf.

## 2008 FAA IASA findings

- Inadequate surveillance plan – does not cover all operators
- Ramp inspection was scheduled for all operators
- The AW surveillance plan focuses on communication tasks rather than other tasks
- Only 10% of CAAIRJT holders surveillance plan was completed
- No follow-up inspections planned

**Does not meet international standards**



# The purpose of Surveillance activities



- Determining each operator's compliance with regulatory requirements and safe operating practices
- Detecting changes as they occur in the operational environment
- Detecting the need for regulatory, managerial, and operational changes
- Determining the effectiveness of previous corrective actions. This can be achieved by
  - scheduling follow-up inspections; or by
  - analyzing findings from subsequent inspections

# Annual planning principles



- ❑ Systematic scheduling of surveillance activity throughout the year (evenly spread)
- ❑ Annual Surveillance Plan Directives for the various domains - types of inspections (R/P) and their frequency 
- ❑ Computerized system for planning and administrating all surveillance activities
- ❑ Types and frequencies of surveillance activities + types and numbers of inspected items (aircraft / pilots / check airman / stations etc.) are incorporated in the WTS 




The screenshot shows the WTS Home Page for Israel. It includes a navigation menu on the left with options like 'Data Entry', 'Reports', and 'Reference Lists'. The main content area displays 'July 2018' with '1' Minimum Required Activities and '0' Passed Callupdate. A table at the bottom shows historical data for years 2014 to 2018, including the number of inspections and pass rates.

year	מס'ל משימות תוכנית	מס'ל תוכנית	אחוז תוכנית	אחוז אחי קולטרי
2014	1114	1227	90.79%	100.00%
2015	1097	1158	94.73%	100.00%
2016	1095	1170	93.58%	100.00%
2017	1194	1225	98.65%	100.00%
2018	542	1141	47.50%	50.98%

## Planning phase




- ❑ Every OCT. - **annual planning meetings with:**
  - ❑ WTS administrator - integrator and facilitator
  - ❑ Department / Division head
  - ❑ Relevant PIs - knowledgeable in the specific situation and status of the operator
- ❑ In preparation for planning meetings the WTS administrator is responsible to update the WTS on types and numbers of inspected items
- ❑ Planned “tentative date” for executing each task – assigned to the POI/PMI (PIs) 
- ❑ PIs assign the various tasks to the CASIs in his team (by their personal code name) – enable the CASI to administer the task through the system
- ❑ PIs responsible for inter-Departmental Coordination


# Routine Surveillance



## Categorization of findings –

- I** – Information
- P** – Potential: the certificate holder meets requirements, but there is potential for future noncompliance (crew didn't make 1000 ft call out, without level bust)
- U** – Unsatisfactory - the certificate holder does not meet requirements
- E** – Enforcement – in case enforcement action is initiated as a result of the activity 
- T**- Terminated

## Routine surveillance



- ❑ Complex surveillance (base inspection, aerodrome inspection) – team of CASIs, lead by PI
- ❑ CASI responsibilities - 
  - ❑ inputs surveillance activity & findings into the WTS
  - ❑ Classifies the activity as **Closed/ Open** + call up date
  - ❑ sends a report to the certificate holder
  - ❑ Administers the certificate holder's response to findings
  - ❑ Decides if follow-up activity is required
- ❑ POI/PMI – can monitor progress of implantation of the surveillance plan for certificate holders under their responsibility
- ❑ Periodic CASIs meetings – PIs present certificate holders current status

## Changes to annual plan



- Follow up activities
- Ad-hoc inspections to address safety concerns based on trends as identifies via -
  - Periodic CASIs meetings – PIs present certificate holders current status
  - On going managers review via BI
  - Safety occurrence reports
  - Whistleblowers
  - SAFA findings
- Optimizing CASI utilization

## Business Intelligence

- Monitors performance of the entire inspectorate 
- Monitor performance of each CASI 
- Analyze certificate holder's findings & trends
- Enables in-depth research into the specific inspection and findings
- Statistics & ad hoc reports
- The main challenge – standardization & quality of inputs

## The role of POI & PMI




DOC. 8335, chapter 5, section 5.4:

“The DGCA should assign a CAA inspector to each operator, who would be responsible for managing the CAA oversight of the operator. This assignment should be for a specified time period, e.g. two or three years, after which another inspector would be assigned to the operator, if the size of the CAA inspectorate permits such change. A number of CAA inspectors may assist the inspector assigned to an operator, depending on the size and complexity of the operator’s activities and on the specialized inspector qualifications that are required. “

## The role of POI & PMI



- ❑ Principal Inspectors - The CASIs who have the most complete picture of the certificate holder's status
  - ❑ The PIs are the focal point of all certification and surveillance activities of certificate holders under their responsibility (within their respective area of expertise)
  - ❑ In cases of large AOC holders – POI/PMI is in charge of a team of CASIs that support him in certification and surveillance activities
- 
- ❑ The PIs will be involved in all enforcement actions regarding certificate holders under their responsibility
  - ❑ Should be replaced every 2-3 years

## POI & PMI of AOC holder



- Close co-operation between POI and PMI is needed
- Typical common certification activities – Certification of new applicant, Adding aircraft to OpSpecs, MEL, LVO, RVSM, PBN, PBC, MNPS, EDTO, EFB
- Typical POIs certification activities: training program, OM
- Typical PMIs certification activities: maintenance program, reliability program, anti-icing / deicing program, MCM, Mass & Balance Program



# Check airmen surveillance

# Check-airmen surveillance



## ❑ 2008 findings:

❑ proficiency check failure rate in AOC holders – 0

❑ Prof. check programs -

❑ not compatible with regulations

❑ Innovative & creative

## ❑ Resolution:

❑ Introducing a surveillance directive

❑ Revising programs

❑ Introducing a surveillance directive – for promotion & standardization

❑ Introducing a surveillance directive – in the routine surveillance plan (once every 2

❑ enforcement as a last resort

**Outcome: effective control over pilot skills**

# Surveillance of ANSP


# Surveillance of the ANSP



- Need for establishing the technical field “from scratch”
- GM –
  - CAAI directive ANS 2.7.001 “surveillance of ANSP”
  - [Checklist](#) of CAAI directive ANS.1.7.008 “adding ATM unit to ANSP license”
- Combined inspection team : ATM/PEL CASI + CNS CASI + MET CASI
- A minimum of 1 annual inspection for each ATM unit; in depth inspection of the various topics in 4-year cycle
- “Performance based” focus –
  - previous deficiencies
  - Related Safety occurrences from the past 12 month
  - Public complaints
- Findings & CAPS documented on excel sheet

## Surveillance of CNS



- ❑ Need for establishing the technical field “from scratch”
- ❑ 2014 ICVM finding :
  - “the CAAI does not yet conduct oversight over entities operating CNS systems and facilities. There are currently no CNS inspectors within CAAI”
- ❑ Recruitment of CASI - electronic engineer with avionics background
- ❑ Regulatory requirements –
  - ❑ General requirement for approval of navigation aids
  - ❑ requirement for suitable equipment for ATM unit to adequately perform its duties
- ❑ GM – CAAI directive ANS 2.7.003 “[CNS inspector hand book](#)” 

## Surveillance of CNS



### □ Initial findings:

**The system does not ensure maintenance in accordance to manufacturer instructions by adequately qualified personnel**

**In the beginning – resistance & reluctance**

**Inspired to co-operate by enforcement**

End



# WTS data base



**Surveillance Program**

KCAR | Airlines planned | Airlines  
 12 | 37 | 36  
 13 | 4 | 4  
 LG AMO | 7 | 7  
 SM AMO | 11 | 25

**El Al Israel Airlines**    POI: Michael Gil    PMI: Yoram Shiloach    YEAR: 2018

**Surveillance Program**

ID	AOCcode	ACTcode	InspectorID	CallUpDate	MMS
AW201800938	ELY	3624	YSH	1/31/2018	
AW201800939	ELY	3628	YSH	1/31/2018	
AW201800940	ELY	3628	YSH	1/31/2018	
AW201800941	ELY	3628	YSH	1/31/2018	
AW201800942	ELY	3628	YSH	1/31/2018	
AW201800943	ELY	3628	YSH	1/31/2018	
AW201800944	ELY	3634	YSH	1/31/2018	
AW201800945	ELY	3636	YSH	1/31/2018	
AW201800946	ELY	3637	YSH	1/31/2018	
AW201800947	ELY	3637	YSH	1/31/2018	
AW201800948	ELY	3637	YSH	1/31/2018	
AW201800949	ELY	3637	YSH	1/31/2018	
AW201800950	ELY	3637	YSH	1/31/2018	
AW201800951	ELY	3639	YSH	1/31/2018	
AW201800952	ELY	3639	YSH	1/31/2018	
AW201800953	ELY	3639	YSH	1/31/2018	
AW201800954	ELY	3639	YSH	1/31/2018	
AW201800955	ELY	3639	YSH	1/31/2018	
AW201800956	ELY	3649	YSH	1/31/2018	
AW201800957	ELY	3649	YSH	1/31/2018	
AW201800958	ELY	3649	YSH	1/31/2018	
AW201800959	ELY	3649	YSH	1/31/2018	
AW201800960	ELY	3649	YSH	1/31/2018	
AW201800961	ELY	3626	YSH	1/31/2018	
AW201800962	ELY	3647	YSH	1/31/2018	
OP201800963	ELY	1622	MIC	1/31/2018	
OP201800964	ELY	1622	MIC	1/31/2018	
OP201800965	ELY	1622	MIC	1/31/2018	
OP201800966	ELY	1622	MIC	1/31/2018	
OP201800967	ELY	1622	MIC	1/31/2018	
OP201800968	ELY	1622	MIC	1/31/2018	

**GEN 4.1.601 For El Al Israel Airlines**

ID	DEPARTMENT	ActivityName	ACTcode	SUM (INT / FLEET)	INT(OPR)
13	AW	SURV/APPRO WT & BAL	3639	5	0
8	AW	SURV/RAMP CHECK/ISRAELI	3624	5	0
9	AW	SURV/SPOT CHECK	3628	5	0
10	AW	SURV/ACFT RECORDS	3634	0	1
12	AW	SURV/INSPECTIN PRGM	3637	5	0
14	AW	SURV/LAD COMPLY INSP	3649	5	0
15	AW	SURV/MAN/PROCEDURS	3626	0	0.33
16	AW	SURV/EN ROUTE CABIN	3630	0	2
55	AW	SMS/INSP	3695	0	1
18	AW	SURV/MAIN BASE	3647	0	1
17	AW	SURV/STATION FACILITY	3617	0	0.33
11	AW	SURV/RELAB PROG	3636	0	1
2	OPS	SURV/MANUAL PROCEDURES	1621	0	1
3	OPS	SURV/MAIN BASE	1616	0	1
4	OPS	SURV/EN ROUTE COCKPIT	1624	10	0
6	OPS	SURV/EN ROUTE CABIN	1625	0	2
5	OPS	SURV/STATION FACILITY	1617	0	0

**Surveillance Planned**

ID	DEPARTMENT	ActivityName	ACTcode	INT(FEET)	INT(OPR)	LANED
13	AW	SURV/APPRO WT & BAL	3639	5	0	5
8	AW	SURV/RAMP CHECK/ISRAELI	3624	5	0	6
9	AW	SURV/SPOT CHECK	3628	5	0	5
10	AW	SURV/ACFT RECORDS	3634	0	1	1
12	AW	SURV/INSPECTIN PRGM	3637	5	0	5
14	AW	SURV/LAD COMPLY INSP	3649	5	0	5
15	AW	SURV/MAN/PROCEDURS	3626	0	0.33	1
15	AW	SMS/INSP	3695	0	1	1
18	AW	SURV/MAIN BASE	3647	0	1	1
17	AW	SURV/STATION FACILITY	3617	0	0.33	10
11	AW	SURV/RELAB PROG	3636	0	1	1
2	OPS	SURV/MANUAL PROCEDURES	1621	0	1	1
3	OPS	SURV/MAIN BASE	1616	0	1	1
4	OPS	SURV/EN ROUTE COCKPIT	1624	10	0	10
5	OPS	SURV/EN ROUTE CABIN	1625	0	2	2
6	OPS	SURV/STATION FACILITY	1617	0	0	10
52	OPS	SMS/INSP	1696	0	1	1
48	OPS	SURV/CREW/DISP RECORDS	1627	0	1	1

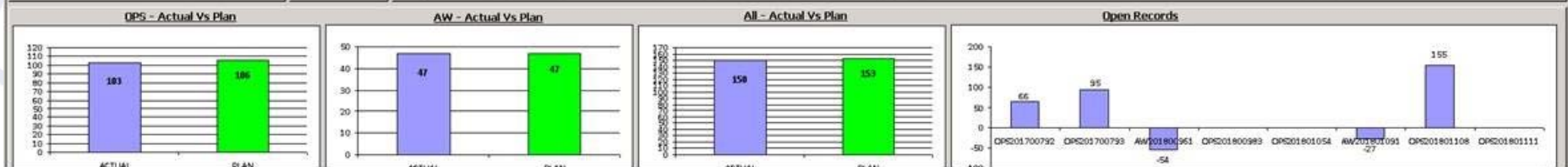
**Aircrafts**

MMS	AircraftRegistration
8763	4X-EAF
8763	4X-EAK
8763	4X-EAL
8763	4X-EAM
8763	4X-EAP
8763	4X-EAR
8772	4X-ECA
8772	4X-ECB
8772	4X-ECC
8772	4X-ECD
8772	4X-ECE
8772	4X-EDD
8772	4X-EDF
8737	4X-EDG
8737	4X-EDE
8738	4X-EIA
8738	4X-EIB
8738	4X-EIC
8738	4X-EIF
8738	4X-EIH
8738	4X-EKI

**FLEETS**

Fleet	Quantity
8737	2
8738	15
8739	4
8744	7
8763	6
8772	6
8789	1

Total: 5



## Method for determining the number and types of inspections

evaluation of complexity and size through “homogenous groups” (pilots, mechanics, aircraft, flight attendants, training and qualification records, line stations)

<b>Population of homogeneous group</b>	<b>Recommended number of inspections</b>
Up to 100	50% (50)
200	40% (80)
400	35% (140)
500	33% (165)
1000	28% (280)
2000	16% (322)
3000	11% (330)
4000	8.8% (352)
5000	7.7% (355)
10,1000	3.7%(370)

# Surveillance requirements - AOC (OPS)

## 4. Chapter 13 – Air Carrier – Operations

Inspection Type	WTS Code	Min per Opr	Min. per Fleet	Elements (P=Proficiency, R=Records)							
				A/C	Flight Crew	Cabin	FOO	Designat	Manuals	Ground Staff	Trip Records
Ramp	1622		2	X	R	R			X		X
Base - Manuals	1621	1							X		
Base – Trip Records	1628	1									X
Base - Dispatch	1636	1					P+R		X		X
Base – Crew Records	1627				R	R	R	R			
Enroute – Cockpit	1624		2	X	P				X		X
Enroute – Cabin	1625	2	1			P			X		
Station – Facility	1635	1							X	P + R	
Training – Flight Crew	1626	1*			P			P	X		
Training - Other	1626	1**				P	P	P	X		

(\*) Training inspection for flight crew can be either in simulator, flight or ground training.

(\*\*) One inspection on either Dispatcher, Cabin Crew, Flight Engineer or Navigator Training.

## Surveillance requirements - AOC (AW)

### 5. Chapter 13 – Air Carrier – Airworthiness

TASK	WTS	Min Per OPR	Min Per Fleet
Ramp Check	3624		1
Spot Check	3628		1
Aircraft Records	3634	1	
Reliability Program	3636	1	
Inspection Program	3637		1
Weight and Balance	3639		1
AD Comply	3649		1
Manuals. Manual/Procedures	3626	1 Up To 3 Years	
Route Structures Maintenance Facility Inspection	3619	1	
En Route Cabin	3630		1
Outsource Maintenance Organization	3617	1 Up To 3 Years	

# Surveillance requirements – aerodrome / ATM/ CNS domains



Surveillance activity Type	Required amount
<b>Aerodromes</b>	
Aerodrome inspection	Small aerodrome – 1 annually Big aerodrome – 2 annually
Aerodrome emergency drill inspection	1 every 2 years
In-depth aerodrome procedures & manuals	1 per aerodrome annually
Navigation aid located outside aerodrome	1 every 3 years
Landing sights	Regular landing sight - 1 annually Agriculture / private use landing sights – 1 every 3 years
<b>ATM Units</b>	
Civil Unit	1 annually in each unit (12)
Military unit	1 in every 2 years
<b>CNS</b>	
Navigation aids located in aerodrome	1 per aid annually
Navigation aid located outside aerodrome	1 every 3 years
Civil ATM unit	1 in each unit (12) every 2 years
Military unit	1 in every 2 years



ID	CallUpDate	Activity Code	AOC / AMO	Status	AirPort Code
OPS201800969	31-January-18	SURVL/MANUAL PROCEDURES	EI Al Israel Airlin	R	
OPS201800970	31-January-18	SURVL/MAIN BASE	EI Al Israel Airlin	R	
OPS201800982	31-December-18	SURVL/EN ROUTE CABIN	EI Al Israel Airlin	R	
OPS201800984	31-January-18	SURVL/DISPATCH/FLT FLW/LOC	EI Al Israel Airlin	R	
OPS201800985	31-January-18	SURVL/TRIP RECORDS	EI Al Israel Airlin	R	
OPS201800986	31-January-18	SURVL/CREW/DISP RECORDS	EI Al Israel Airlin	R	
OPS201800987	31-January-18	SMS\INSP	EI Al Israel Airlin	R	
OPS201801047	31-January-18	SURVL/STATION FACILITY	EI Al Israel Airlin	R	Munich Internation
OPS201801067	31-January-18	SURVL/STATION FACILITY	Arkia Israel Airlin	R	Munich Internation
OPS201801084	31-January-18	SURVL/STATION FACILITY	Israir	R	Munich Internation
OPS201801097	31-January-18	SURVL/CHECK AIRMAN/SIM	EI Al Israel Airlin	R	
OPS201801102	31-January-18	SURVL/CHECK AIRMAN/SIM	EI Al Israel Airlin	R	
OPS201801109	31-January-18	SURVL/CHECK AIRMAN/SIM	EI Al Israel Airlin	R	
OPS201801119	31-January-18	SURVL/CHECK AIRMAN/SIM	EI Al Israel Airlin	R	
OPS201801124	31-January-18	SURVL/CHECK AIRMAN/SIM	EI Al Israel Airlin	R	
*					



### Inspector Worksheet

<a href="#">Search</a>	<a href="#">First</a>	<a href="#">Next</a>	<a href="#">Previous</a>	<a href="#">Last</a>	<a href="#">Clear</a>	<a href="#">Print Safe File</a>	<a href="#">Press to Update Databases</a>	<a href="#">Save and Close</a>	<a href="#">Create PDF File</a>
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Inspector ID <b>STER</b>	Status <b>C</b>	Activity Code <b>3624</b>	Activity Code <b>SURVL/RAMP CHECK/ISRAELI</b>
Start Date <b>15-March-18</b>	Stop Date <b>15-March-18</b>	Callup Date <b>31-July-18</b>	Associated Record <b>OPS201800227</b>
Certificate ID <b>AIZ</b>	Flight <b></b>	Registration <b>4X-BAU</b>	Regulation Reference <b>13</b>
Depart/Location <b>LLBG</b>	Arrive <b></b>	Result (S, I, U, E, F, T) <b>U</b>	
Aircraft Listing <b>B753</b>	Simulator <b></b>		
Examiner Name <b></b>	Certification No <b>0</b>		
CAAI Directive <a href="http://caa.gov.il/index.php?option=com_docman&amp;view">http://caa.gov.il/index.php?option=com_docman&amp;view</a>			

Record ID <b>AW201800248</b>	Callup Date <b>31/07/2018</b>
Record Status <b>Closed</b>	

Airman	License Number	Medical or License Date

ID <b>OPS201800227</b>	Inspectorid <b>RDS</b>	ACTcode <b>1622</b>	CallUpDate <b>11/30/2018</b>
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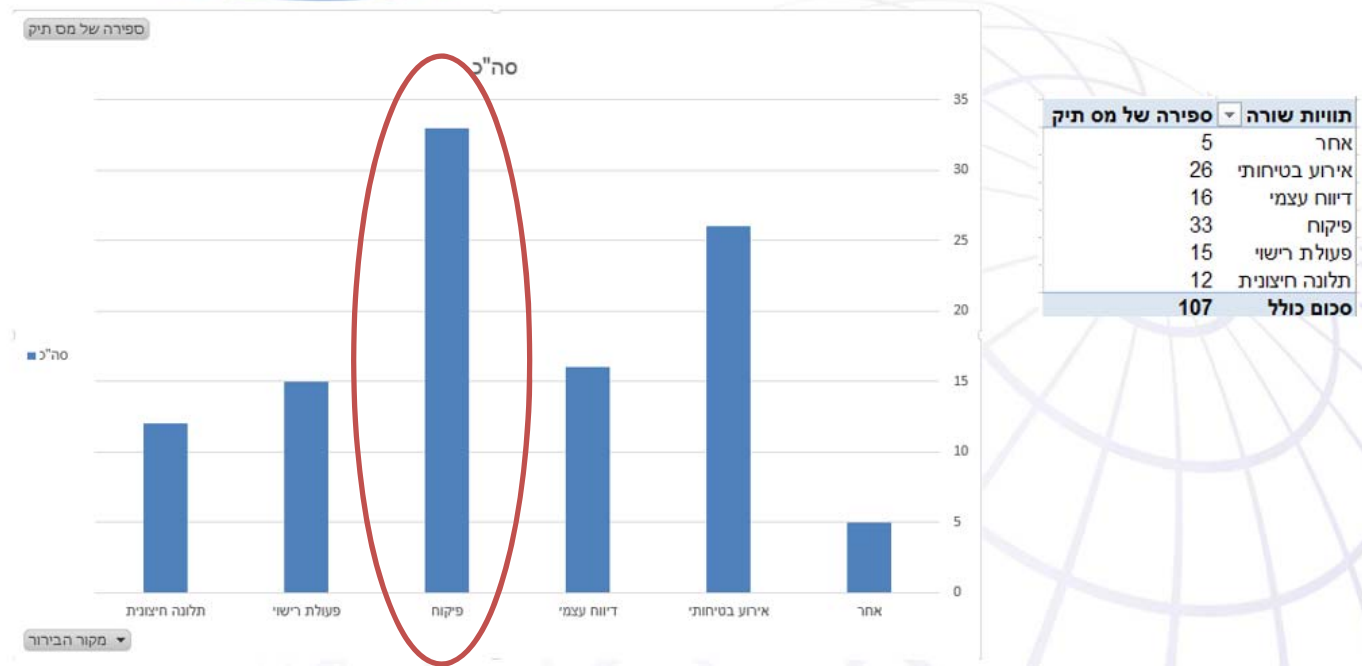
Key word:	Action:	Comment	Corrective Action	Due Date
<b>833</b>	<b>P</b>	5. AFT Cargo door one light is u/s	BULB CHGD CHKD OK AMM 33-37-00-712-014	22-March-18 <input type="button" value="Delete"/>
<b>825</b>	<b>U</b>	6. RH Forward door belt was found clamped in the door.	RH Forward door belt was release. CHKD IAW EO 52-11-01-011-21 FOUND OK	15-March-18 <input type="button" value="Delete"/>
<b>871</b>	<b>U</b>	4. RH Engine inlet cowl lip was found scratched (see picture)	THE SCRATCH IS BLENDED OUT 0.002 SRM 54-11-01-1A-1 PROTECTIVE TREATMENT DONE SRM 51-20-01 REV 57	22-March-18 <input type="button" value="Delete"/>
<b>6</b>	<b></b>			



# Enforcement actions resulting from surveillance activities - 2017



## תב"א שנפתחו לפי מקור הבירור

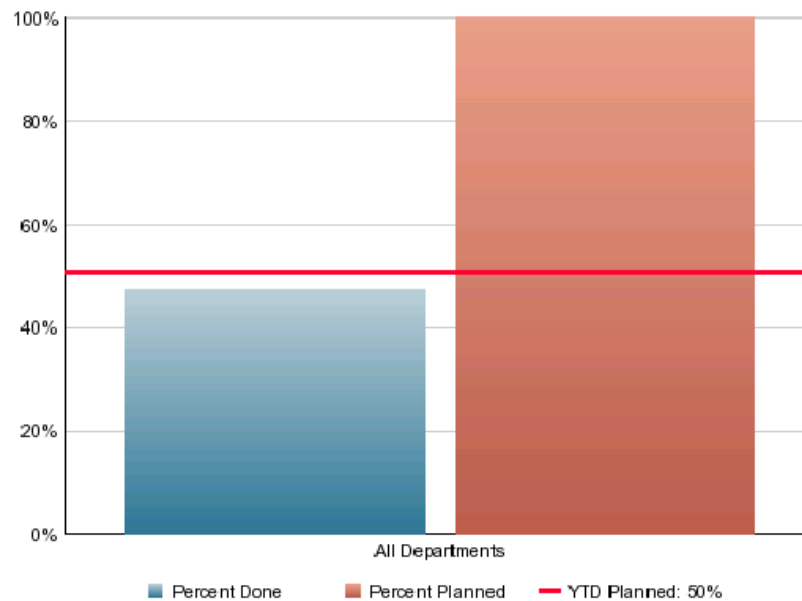


# Actual vs planned



Keep this ver

**Actual vs Planned All CAA - Year-to-Date**



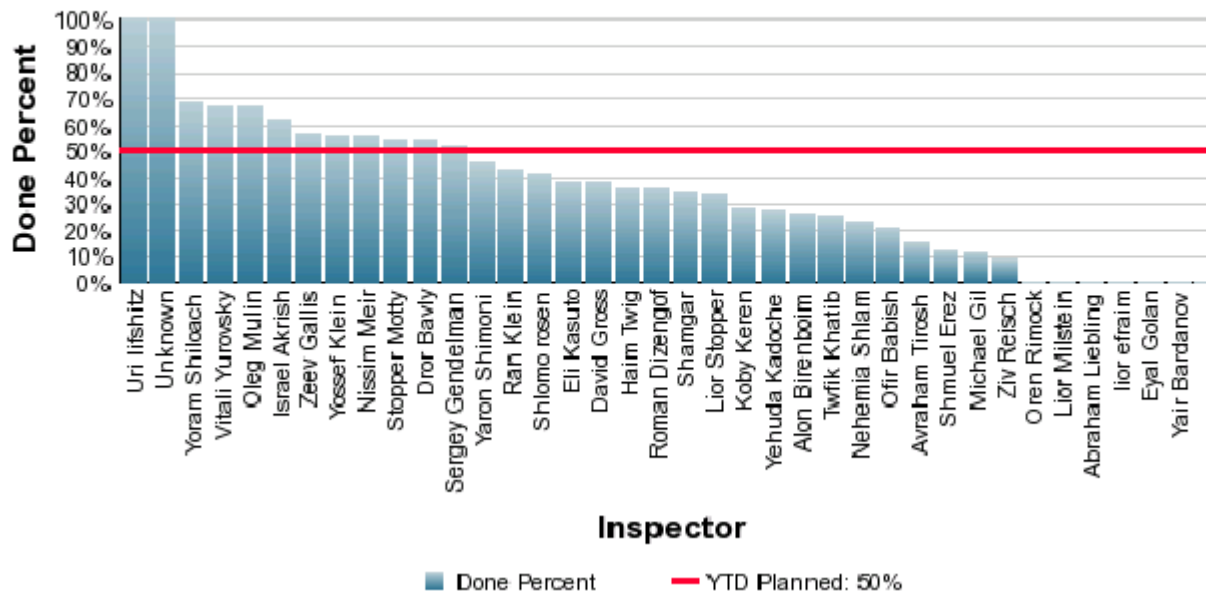
CAA	Actual Planned	Planned	Percent Actual vs Planned	Cancelled planned	Cancelled Percent planned	Actual Planned + Unplanned	Planned + Unplanned	Percent Done
All Departments	417	1,042	40.0%	38	3.6%	573	1,210	47.4%



# Performance by each CASI



**Actual vs Planned by Inspector Year-to-Date**



# POI/PMI 2018

POI  
B737 PM  
Inspector  
B744 PM  
Inspector  
B767 PM  
Inspector  
B777 PM  
Inspector  
B787 PM

Michael Gil  
Yaron Shimoni  
  
Avraham Tirosh  
  
Alon Birenboim  
  
Avraham Tirosh  
  
Motti Stopper

## ELAL

PMI  
Inspector

Yoram Shiloach  
Vitali Yurovsky  
David Gross  
Israel Akrish  
Eliyahu Kasuto

## CAL

POI  
Inspector

Motti Stopper  
Shmuel Erez

PMI  
Inspector

Eliyahu Kasuto  
David Gross  
Israel Akrish

## ISRAIR

POI  
Inspector  
Airbus Inspector  
ATR Inspector

Oren Rimock  
Jairo Lichewitz  
  
Alon Birenboim

PMI  
Inspector

Vitali Yurovsky  
Zeev Galis  
Yoni Klein  
Roman Dizengof

## ARKIA

POI  
Inspector  
ATR Inspector  
B757 Inspector  
Embraer Inspector

Shlomo Rosen  
Shmuel Erez  
Ziv Reisch  
Nehemia Shlam  
Ziv Reisch

PMI  
Inspector

Sergei Gendelman  
Zeev Galis  
Vitali Yurovsky  
Dror Bavli



## CNS GM



1.7.021	VHF Aeronautical Radio Stations Approval	Download
1.7.022	Automatic Terminal Information Service (ATIS) station approval	Download
1.7.023	CVOR/DVOR approval	Download
1.7.024	Distance Measuring Equipment (DME) approval	Download
1.7.025	Instrument Landing Systems (ILS) approval	Download
1.7.026	VHF Direction Finding (VDF) approval	Download
1.7.027	Precision Approach Radar System (PAR) approval	Download
1.7.028	Voice/Data Recording Equipment Approval	Download

