

# RADIO FIX AND HOLDING DATA RECORD

NAME: ARGAL

STATE: NC

COUNTRY: US

ICAO REGION CODE: K7

LATITUDE/LONGITUDE: 361016.63N/0780955.31W

TYPE: WP, INT, DME

AIRSPACE DOCKET: 19-ASO-27

FIX TYPE OF ACTION: MODIFY

## FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	RALEIGH/DURHAM	RDU	VORTAC	H	068.06	059.06	35.00	35.00		2600	17500
2	TAR RIVER	TYI	VORTAC	L	302.57	297.57	25.30	25.30		2600	17500

HOLDING:

HOLDING TYPE OF ACTION: CANCEL

## REMARKS:

RALEIGH/DURHAM (FAC 1) AND TAR RIVER (FAC 2) USED TO ESTABLISH FIX COORDINATES  
ATC REQUEST CHARTING ON EN ROUTE HIGH.

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V615	1, 2				(US)
EN ROUTE	V66	1, 2				(US)
STAR	NASCR			KVUJ	ALBEMARLE	NC (US)
STAR	CHSLY (RNAV)			KCLT	CHARLOTTE	NC (US)
STAR	NASCR			KJQF	CONCORD	NC (US)
STAR	NASCR			KRUQ	SALISBURY	NC (US)

REQUIRED CHARTING: STAR, EN ROUTE LOW, EN ROUTE HIGH, CONTROLLER LOW, CONTROLLER HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 10

DATE OF REVISION: 11/05/2020

## REASON FOR REVISION:

1. HOLDING: DELETED PAT 1 AND PAT 2.
2. HOLDING RESTRICTIONS: DELETED "HOLDING LIMITED TO ESTABLISHED PATTERNS"
3. REMARKS: DELETED "PRECIPITOUS TERRAIN EVALUATION COMPLETED" AND "10 NM HOLDING LEGS FOR PAT 2 REQUESTED BY ATC."
4. FIX USE: DELETED ARGAL STAR AND KAROO (RNAV) STAR.
5. FIX USE: REMOVED J209 AND ADDED DOCKET NUMBER 19-ASO-27.
6. REQUIRED CHARTING: DELETED "CONTROLLER"; ADDED "CONTROLLER LOW" AND CONTROLLER" HIGH.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A431

NAME: TARA MARTINELLI

APPROVED BY:

DATE:

OFFICE: AJV-A430

NAME: GEORGE DAVIS

SIGNATURE: *Digitally signed by*

**DONALD H LANIER**

DISTRIBUTION:

NFDC

FPO: EST

ARTCC: ZDC

ATC FACILITY: RDU APP CON

OTHER:

Nov 06, 2020

QUALITY  
18  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

**NAME:** CAPE CHARLES VORTAC      **STATE:** VA      **COUNTRY:** US      **ICAO REGION CODE:** K6

**LATITUDE/LONGITUDE:** 372051.14N/0755951.55W      **TYPE:**

**AIRSPACE DOCKET:**      **FIX TYPE OF ACTION:** NO CHANGE

**FIX MAKE-UP FACILITIES:**

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	MRA FEET	MAA
1	CAPE CHARLES	CCV	VORTAC	L						45000

**HOLDING:**      **HOLDING TYPE OF ACTION:** MODIFY

**PATTERNS:**

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME DME	HOLDING ALTITUDES MIN MAX	TEMPLATES MIN MAX
1	SW	CCV	VORTAC	210.00	030.00	L	1 1/2	24000 32000	19 23
2	SW	CCV	VORTAC	209.00	029.00	L	1	2000 6000	4 5

**CONTROLLING OBSTRUCTIONS:**

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
2	200	TOWER (51-001347)	371545.00N/0760044.00W	757	5D

**REASON FOR NONSTANDARD HOLDING:**

PAT 1 REMAIN CLEAR OF WARNING AREA.  
PAT 2 REMAIN CLEAR OF WARNING AREA.

**HOLDING RESTRICTIONS:**

HOLDING LIMITED TO ESTABLISHED PATTERNS.

**REMARKS:**

CHART PAT 1 ON ENROUTE HIGH CHART  
PRECIPITOUS TERRAIN EVALUATION COMPLETED.  
ASSIGNED FACILITY MAG VAR: 10W/1985.

**FIX USE:**

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	SWABY			KNHK	PATUXENT RIVER	MD (US)
DP	HENRY			KPHF	NEWPORT NEWS	VA (US)
DP	KISRR			KORF	NORFOLK	VA (US)
DP	OCEANA			KNTU	VIRGINIA BEACH	VA (US)
EN ROUTE	V1					(US)
EN ROUTE	V139					(US)
EN ROUTE	V286					(US)
EN ROUTE	V38					(US)
IAP	LOC RWY 3			KMFV	MELFA	VA (US)
IAP	RNAV (GPS) RWY 21			KMFV	MELFA	VA (US)
IAP	VOR RWY 3			KMFV	MELFA	VA (US)
IAP	ILS OR LOC RWY 07			KPHF	NEWPORT NEWS	VA (US)
IAP	ILS OR LOC RWY 25			KPHF	NEWPORT NEWS	VA (US)
IAP	LOC RWY 20			KPHF	NEWPORT NEWS	VA (US)
IAP	RNAV (GPS) RWY 20			KPHF	NEWPORT NEWS	VA (US)
IAP	RNAV (GPS) RWY 25			KPHF	NEWPORT NEWS	VA (US)
IAP	ILS OR LOC RWY 23			KORF	NORFOLK	VA (US)
IAP	ILS OR LOC RWY 5		2	KORF	NORFOLK	VA (US)
IAP	RNAV (GPS) RWY 14			KORF	NORFOLK	VA (US)
IAP	RNAV (GPS) RWY 32			KORF	NORFOLK	VA (US)
IAP	RNAV (GPS) Z RWY 23			KORF	NORFOLK	VA (US)
IAP	GPS RWY 1			KW75	SALUDA	VA (US)
IAP	RNAV (GPS)-B			KTGI	TANGIER	VA (US)
IAP	VOR/DME-A			KTGI	TANGIER	VA (US)
STAR	TERKS			KCPK	CHESAPEAKE	VA (US)
STAR	TERKS			KNGU	NORFOLK	VA (US)
STAR	TERKS			KORF	NORFOLK	VA (US)
STAR	TERKS			KPVG	PORTSMOUTH	VA (US)
STAR	TERKS			KSFQ	SUFFOLK	VA (US)
STAR	TERKS			KNTU	VIRGINIA BEACH	VA (US)

**REQUIRED CHARTING:** DP, STAR, MILITARY DP, IAP, EN ROUTE LOW, EN ROUTE HIGH, CONTROLLER LOW, CONTROLLER HIGH

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** 16

**DATE OF REVISION:** 11/05/2020

**REASON FOR REVISION:**



1. ESV: REMOVED ALL ESV'S.
2. HOLDING: ADDED PAT 1 MIN TEMPLATE
3. FIX USE: REMOVED STAR ARGAL
4. FIX USE: ADDED STAR TERKS AT KCPK, KNGU, KPVG, KSFQ, AND KNTU.
5. FIX USE: REMOVED STAR SMYRA AT KDOV.

<b>INITIATED BY:</b>	<b>DATE:</b>	<b>ORGANIZATION:</b>	<b>NAME:</b>
<b>OFFICE OF PRIMARY RESPONSIBILITY:</b>		AJV-A431	<b>NAME:</b> TARA MARTINELLI
<b>APPROVED BY:</b>	<b>DATE:</b>	<b>OFFICE:</b> AJV-A430	<b>NAME:</b> GEORGE DAVIS
	<b>SIGNATURE:</b>	<i>Digitally signed by</i> <b>DONALD H LANIER</b>	
<b>DISTRIBUTION:</b>	<b>NFDC</b> <b>FPO:</b> EST <b>ARTCC:</b> ZDC <b>ATC FACILITY:</b> ORF APP CON, PHF ATCT <b>OTHER:</b>	Nov 06, 2020	

QUALITY  
18  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: DRIVE

STATE: VA

COUNTRY: US

ICAO REGION CODE: K6

LATITUDE/LONGITUDE: 365410.64N/0763406.22W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: MODIFY

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

ATC COORDINATION FIX

FIX USE:

USE TYPE  
IAP

USE TITLE

RNAV (GPS) RWY 27

FAC

PAT

AIRPORT IDENT

KFKN

CITY

FRANKLIN

STATE

VA (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, EN ROUTE HIGH, CONTROLLER LOW, CONTROLLER HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 8

DATE OF REVISION: 11/5/2020

REASON FOR REVISION:

FIX TYPE: DELETED "INT" AND "DME"

FIX MAKE-UP: DELETED ALL FIX MAKE-UP AND ASSOCIATED ESVS

REMARKS: ADDED "ATC COORDINATION FIX"

FIX USE: DELETED "ENROUTE LOW CHART" AND ARGAL STAR

REQUIRED CHARTING: DELETED "STAR" AND "CONTROLLER"; ADDED "CONTROLLER LOW" AND "CONTROLLER HIGH"

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A431

NAME: JACOB MAXFIELD

APPROVED BY:

DATE:

OFFICE: AJV-A430

NAME: GEORGE DAVIS

SIGNATURE:

*Digitally signed by*

**DONALD H LANIER**

DISTRIBUTION:

NFDC

FPO: EST

ARTCC: ZDC

ATC FACILITY: ORF

OTHER:

Nov 06, 2020

QUALITY  
18  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: DUFFI STATE: NC COUNTRY: US ICAO REGION CODE: K7  
 LATITUDE/LONGITUDE: 362057.87N/0774729.22W TYPE: WP, DME

AIRSPACE DOCKET: FIX TYPE OF ACTION: MODIFY

## FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	MRA	MAA
1	TAR RIVER	TYI	VORTAC	L	354.22	349.22	22.73	22.73	4500	17500
2	HOPEWELL	HPW	VORTAC	L	215.20	209.20	67.10	67.10	5000	17500

## EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
HPW	VORTAC	R-215	68	5000	17500

HOLDING: HOLDING TYPE OF ACTION: NO CHANGE

## PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	HOLDING ALTITUDES MIN DME	MAX	TEMPLATES MIN	MAX
1	S	TYI	VORTAC	174.22	354.22	R	1	5000	6000	6	6

## CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (37-001057)	361729.20N/0775009.40W	1427	3C

## HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

## REMARKS:

TAR RIVER (FAC 1) AND HOPEWELL (FAC 2) USED TO ESTABLISH FIX COORDINATES  
 PRECIPITOUS TERRAIN EVALUATION COMPLETED.

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V157	1, 2				(US)
EN ROUTE	V615	1, 2				(US)
EN ROUTE	V66	1				(US)
IAP	LOC RWY 1 (ALT MA)	1	1	KAVC	SOUTH HILL	VA (US)
STAR	TAQLE (RNAV)			KRDU	RALEIGH/DURHAM	NC (US)

REQUIRED CHARTING: STAR, IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 12 DATE OF REVISION: 11/5/2020

## REASON FOR REVISION:

FIX TYPE: DELETED "INT"  
 REMARKS: DELETED "HOLDING TEMPLATE BASED ON DME ONLY DUE TO INT DIVERGENCE ANGLE OF 39.98D."  
 FIX USE: DELETED FAC 2 FROM V66 AND LOC RWY 1; DELETED ARGAL STAR, KAROO (RNAV) STAR AND KEMV - RNAV (GPS) RWY 34; ADD TAQLE (RNAV) STAR.  
 REQUIRED CHARTING: CHANGED "CONTROLLER" TO "CONTROLLER LOW"

INITIATED BY: DATE: ORGANIZATION: NAME:  
 OFFICE OF PRIMARY RESPONSIBILITY: AJV-A431 NAME: JACOB MAXFIELD  
 APPROVED BY: DATE: OFFICE: AJV-A430 NAME: GEORGE DAVIS

SIGNATURE: Digitally signed by  
 DONALD H LANIER

DISTRIBUTION: NFDC  
 FPO: EST  
 ARTCC: ZDC  
 ATC FACILITY: RDU APP CON  
 OTHER:

QUALITY  
18  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: HOPEWELL VORTAC

STATE: VA

COUNTRY: US

ICAO REGION CODE: K6

LATITUDE/LONGITUDE: 371943.93N/0770657.40W

TYPE:

AIRSPACE DOCKET: 19-ASO-27

FIX TYPE OF ACTION: NO CHANGE

## FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FEET	MRA	MAA
1	HOPEWELL	HPW	VORTAC	L							45000

## HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

## PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME DME	HOLDING ALTITUDES MIN MAX	TEMPLATES MIN MAX
1	NE	HPW	VORTAC	025.00	205.00	L	1	2000 6000	4 5
2	E	HPW	VORTAC	072.00	252.00	L	1	2000 6000	4 5
3	S	HPW	VORTAC	183.00	003.00	R	1	2000 6000	4 5
4	S	HPW	VORTAC	197.94	017.94	L	1 1/2	21000 37000	18 26

## CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (51-000322)	372315.00N/0770343.00W	530	5D
2	200	TOWER (51-000322)	372315.00N/0770343.00W	530	5D
3	200	TOWER (51-000322)	372315.00N/0770343.00W	530	5D

## REASON FOR NONSTANDARD HOLDING:

PAT 1 ATC REQUEST  
PAT 2 ATC REQUEST  
PAT 4 ATC REQUEST

## HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

## REMARKS:

CHART PAT 4 ON ENROUTE HIGH PER ATC REQUEST.  
PRECIPITOUS TERRAIN EVALUATION COMPLETED.  
ASSIGNED FACILITY MAG VAR: 6W/1965.

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	SWABY			KNHK	PATUXENT RIVER	MD (US)
DP	HENRY			KPHF	NEWPORT NEWS	VA (US)
DP	KISRR			KORF	NORFOLK	VA (US)
DP	OCEANA			KNTU	VIRGINIA BEACH	VA (US)
EN ROUTE	V189					(US)
EN ROUTE	V213					(US)
EN ROUTE	V260					(US)
EN ROUTE	V454					(US)
EN ROUTE	V615					(US)
IAP	LOC RWY 34			KEMV	EMPORIA	VA (US)
IAP	COPTER RNAV (GPS) RWY 14			KFAF	FORT EUSTIS	VA (US)
IAP	RNAV (GPS) RWY 14			KFAF	FORT EUSTIS	VA (US)
IAP	RNAV (GPS) RWY 27			KFKN	FRANKLIN	VA (US)
IAP	ILS OR LOC RWY 7			KPHF	NEWPORT NEWS	VA (US)
IAP	ILS OR LOC RWY 10			KPVG	NORFOLK	VA (US)
IAP	LOC RWY 5		3	KPTB	PETERSBURG	VA (US)
IAP	RNAV (GPS) RWY 23			KPTB	PETERSBURG	VA (US)
IAP	VOR RWY 23		2	KPTB	PETERSBURG	VA (US)
IAP	RNAV (GPS) RWY 29			KW96	QUINTON	VA (US)
IAP	VOR-A		3	KW96	QUINTON	VA (US)
IAP	ILS OR LOC RWY 33			KFCI	RICHMOND	VA (US)
IAP	ILS OR LOC RWY 16		1	KRIC	RICHMOND	VA (US)
IAP	ILS OR LOC RWY 2		3	KRIC	RICHMOND	VA (US)
IAP	ILS OR LOC RWY 34		1	KRIC	RICHMOND	VA (US)
IAP	ILS RWY 34 (CAT II - III)		1	KRIC	RICHMOND	VA (US)
IAP	ILS RWY 34 (SA CAT I)		1	KRIC	RICHMOND	VA (US)
IAP	RNAV (GPS) Z RWY 2			KRIC	RICHMOND	VA (US)
IAP	RNAV (GPS) Z RWY 20			KRIC	RICHMOND	VA (US)
IAP	RNAV (GPS) Z RWY 34			KRIC	RICHMOND	VA (US)
IAP	VOR RWY 16		1	KRIC	RICHMOND	VA (US)
IAP	VOR RWY 2			KRIC	RICHMOND	VA (US)
IAP	VOR RWY 20			KRIC	RICHMOND	VA (US)
IAP	LOC RWY 01			KAVC	SOUTH HILL	VA (US)
IAP	NDB RWY 20			KAKQ	WAKEFIELD	VA (US)
IAP	LOC RWY 10		3	KFYJ	WEST POINT	VA (US)
IAP	RNAV (GPS) RWY 10			KFYJ	WEST POINT	VA (US)
IAP	RNAV (GPS)-C			KJGG	WILLIAMSBURG	VA (US)
IAP	VOR - B			KJGG	WILLIAMSBURG	VA (US)
IAP	RNAV (GPS) RWY 5			KW94	WILLIAMSBURG	VA (US)

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STAR	JACKIE (RNAV)	KCDW	CALDWELL	NJ (US)
STAR	JAKIE (RNAV)	KLDJ	LINDEN	NJ (US)
STAR	JACKIE (RNAV)	K47N	MANVILLE	NJ (US)
STAR	JACKIE (RNAV)	KMMU	MORRISTOWN	NJ (US)
STAR	JACKIE (RNAV)	KSMQ	SOMERVILLE	NJ (US)
STAR	JACKIE (RNAV)	KTEB	TETERBORO	NJ (US)

**REQUIRED CHARTING:** DP, STAR, MILITARY IAP, MILITARY DP, IAP, EN ROUTE LOW, EN ROUTE HIGH, CONTROLLER LOW, CONTROLLER HIGH

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** 26

**DATE OF REVISION:** 11/05/2020

**REASON FOR REVISION:**

1. FIX USE: REMOVED ARGAL AND KAROO (RNAV) STARS.
2. ESV: REMOVED HPW ESV.
3. FIX USE: REMOVED "(ALT MA)" FROM KRIC - ILS OR LOC RWY 2.
4. FIX USE: REMOVED J191 AND J55 AND ADDED DOCKET NUMBER 19-ASO-27.
5. FIX USE: REMOVED STAR SMYRA AT KDOV.

**INITIATED BY:**

**DATE:**

**ORGANIZATION:**

**NAME:**

**OFFICE OF PRIMARY RESPONSIBILITY:**

AJV-A431

**NAME:** TARA MARTINELLI

**APPROVED BY:**

**DATE:**

**OFFICE:** AJV-A430

**NAME:** GEORGE DAVIS

**SIGNATURE:**

*Digitally signed by*

**DONALD H LANIER**

**DISTRIBUTION:**

NFDC

FPO: EST

ARTCC: ZDC

ATC FACILITY: ORF APP CON

OTHER:

Nov 06, 2020

QUALITY  
18  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: MEYER

STATE: NC

COUNTRY: US

ICAO REGION CODE: K7

LATITUDE/LONGITUDE: 361249.33N/0780436.13W

TYPE: INT, DME

AIRSPACE DOCKET:

FIX TYPE OF ACTION: NO CHANGE

## FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FAC FEET	MRA	MAA
1	RALEIGH/DURHAM	RDU	VORTAC	H	068.06	059.06	40.00	40.00		2600	17500
2	TAR RIVER	TYI	VORTAC	L	313.17	308.17		23.03		2600	17500

HOLDING:

HOLDING TYPE OF ACTION: CANCEL

## REMARKS:

RALEIGH/DURHAM (FAC 1) AND TAR RIVER (FAC 2) USED TO ESTABLISH FIX COORDINATES  
ATC COORDINATION FIX

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V615		1, 2			(US)
EN ROUTE	V66		1, 2			(US)

REQUIRED CHARTING: EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 4

DATE OF REVISION: 11/5/2020

## REASON FOR REVISION:

HOLDING: DELETED PAT 1

HOLDING RESTRICTIONS: DELETED "HOLDING LIMITED TO ESTABLISHED PATTERNS"

REMARKS: DELETED "PRECIPITOUS TERRAIN EVALUATION COMPLETED"; ADDED "ATC COORDINATION FIX"

FIX USE: DELETED ARGAL STAR; SPLIT V66-615 TO SEPERATE LINES.

REQUIRED CHARTING: DELETED "STAR"; CHANGED "CONTROLLER" TO "CONTROLLER LOW"

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A431

NAME: JACOB MAXFIELD

APPROVED BY:

DATE:

OFFICE: AJV-A430

NAME: GEORGE DAVIS

SIGNATURE:

*Digitally signed by*  
**DONALD H LANIER**

DISTRIBUTION:

NFDC  
FPO: EST  
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OTHER:

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