

KIC 003955026

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
003955026-01	OBS	No	2.269846	132.925833	12.1	11.851	7.6	5.0	1.83	6887	0.64	4742.64
003955026-02	OBS	No	472.347430	158.501324	210.4	27.735	9.4	8.9	1.83	6887	3.06	3.85
003955026-03	OBS	No	137.480174	208.485675	400.2	2.120	7.8	8.5	1.83	6887	4.25	19.94
003955026-04	OBS	No	26.298968	145.354003	145.5	2.576	7.8	7.6	1.83	6887	2.48	180.90
003955026-05	OBS	No	210.044960	143.078264	335.9	3.609	7.5	8.0	1.83	6887	3.76	11.33
003955026-06	OBS	No	141.631780	173.900844	338.2	2.378	7.2	8.1	1.83	6887	3.92	19.16
003955026-07	OBS	No	96.535051	211.266209	302.1	2.559	7.4	7.9	1.83	6887	3.53	31.95

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003955026-01	OBS	FP	0.00	1	0	0	0	LPP_DV
003955026-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
003955026-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
003955026-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
003955026-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
003955026-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS—HALO_GHOST
003955026-07	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

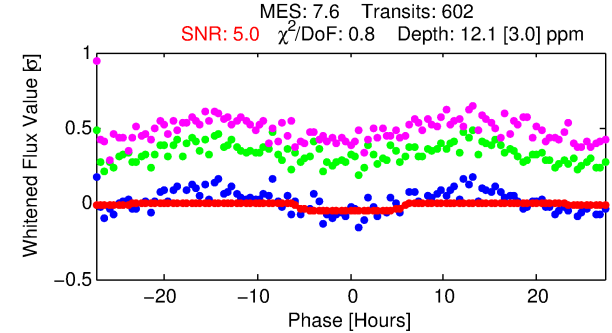
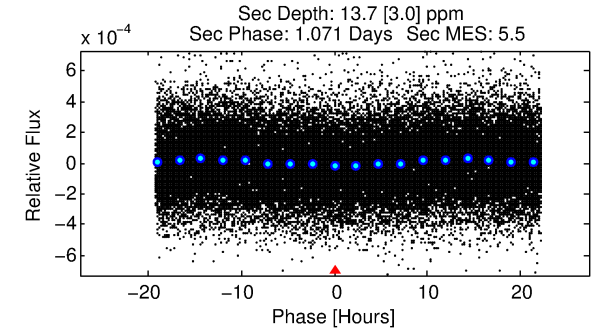
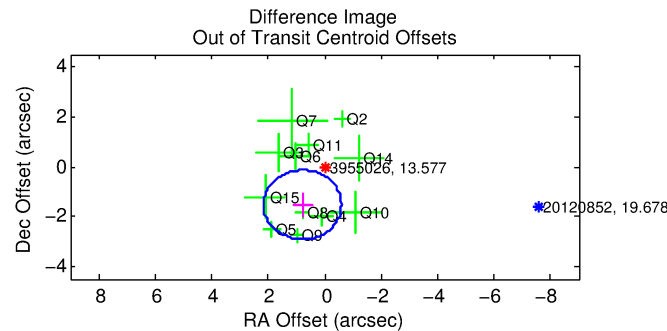
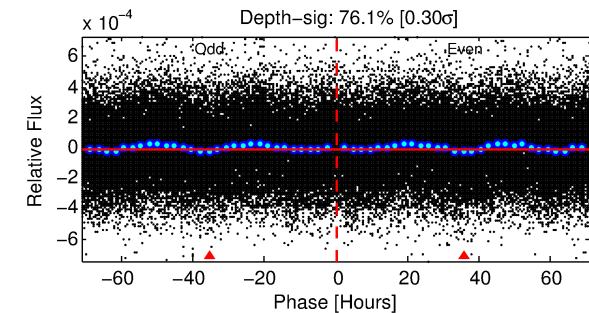
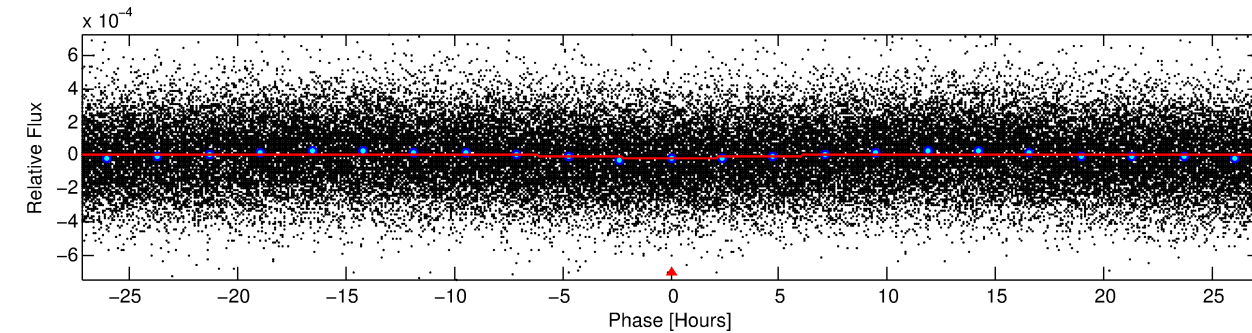
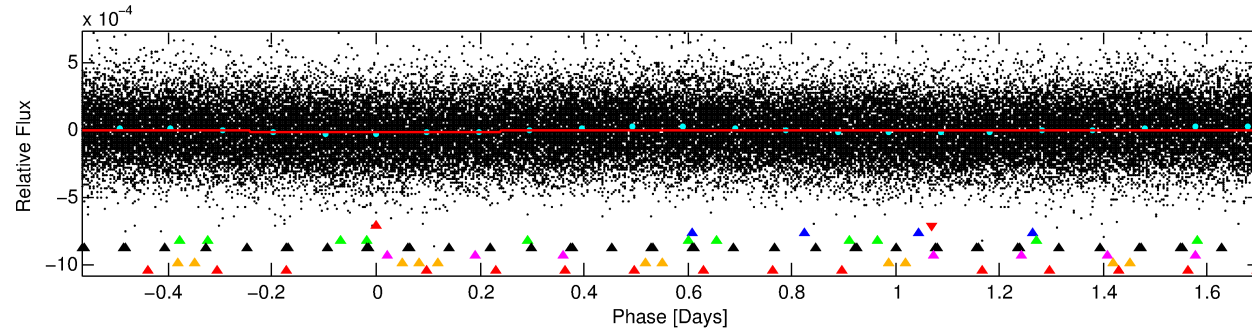
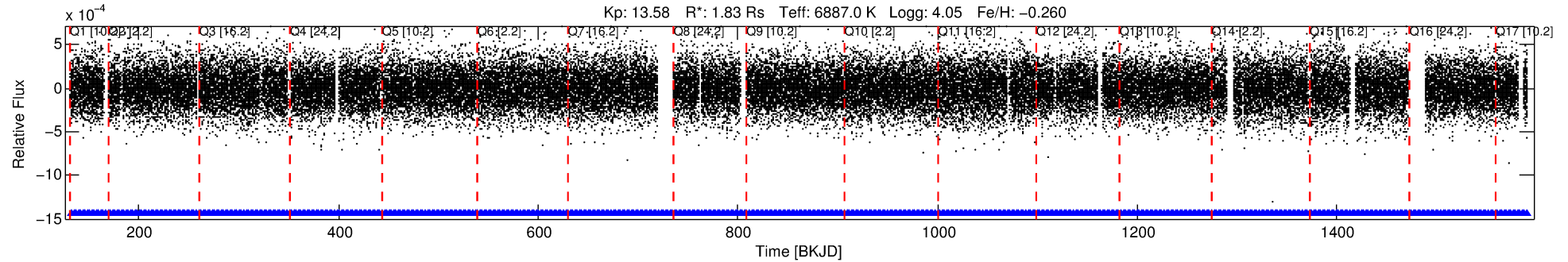
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003955026-01

No Significant Match Found

DV One-Page Summary

KIC: 3955026 Candidate: 1 of 7 Period: 2.270 d



DV Fit Results:

Period = 2.26985 [0.00007] d
Epoch = 132.9258 [0.0167] BKJD
Rp/R* = 0.0032 [0.0054]
a/R* = 1.59 [9.09]
b = 0.05 [204.33]
Seff = 4742.64 [2154.23]
Teq = 2116 [240] K
Rp = 0.64 [1.09] Re
a = 0.0376 [0.0101] AU
Ag = 26.00 [88.31] [0.28 σ]
Teffp = 7388 [6232] K [0.85 σ]

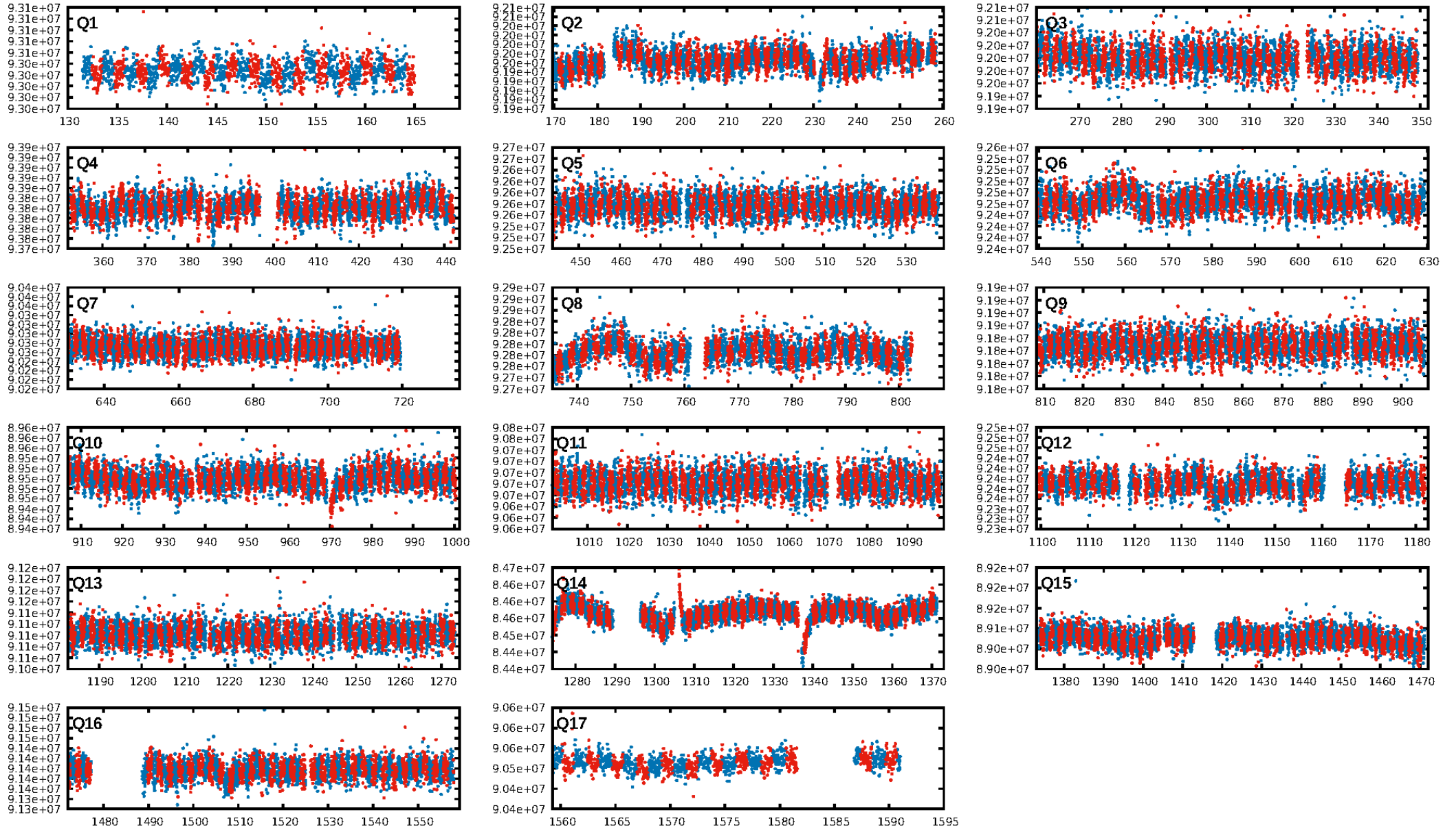
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [47.55 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 8.91e-09
RollingBand-fgt: 1.00 [575/575]
GhostDiagnostic-chr: 1.489
Centroid-sig: 0.1%
Centroid-so: 4.560 arcsec [2.51 σ]
OotOffset-rm: 1.717 arcsec [3.72 σ]
KicOffset-rm: 1.674 arcsec [3.83 σ]
OotOffset-st: 4/4/2/2 [12]
KicOffset-st: 4/4/2/2 [12]
DiffImageQuality-fgm: 0.67 [8/12]
DiffImageOverlap-fno: 1.00 [17/17]

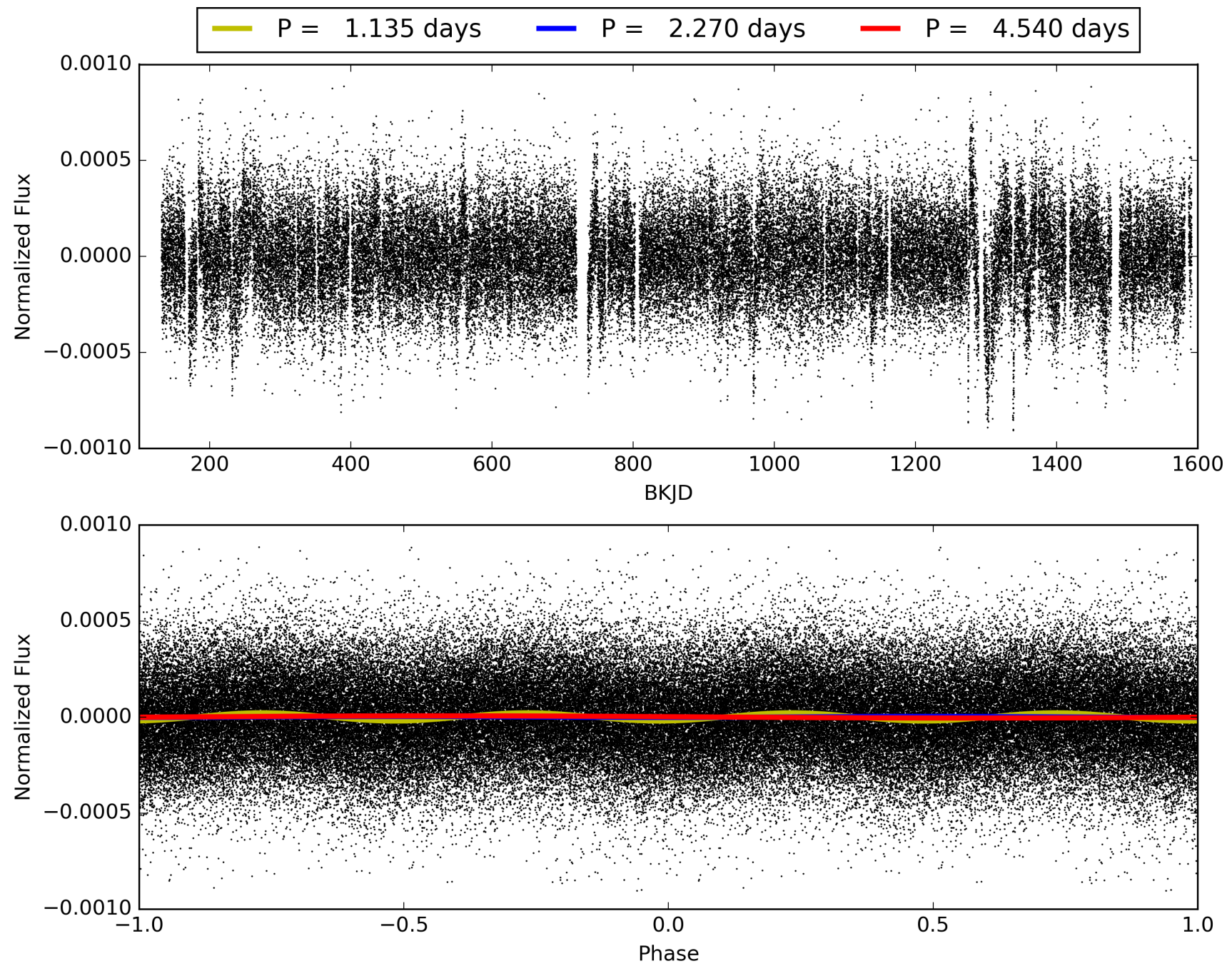
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 11:24:36 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 003955026-01, PDC Light Curves

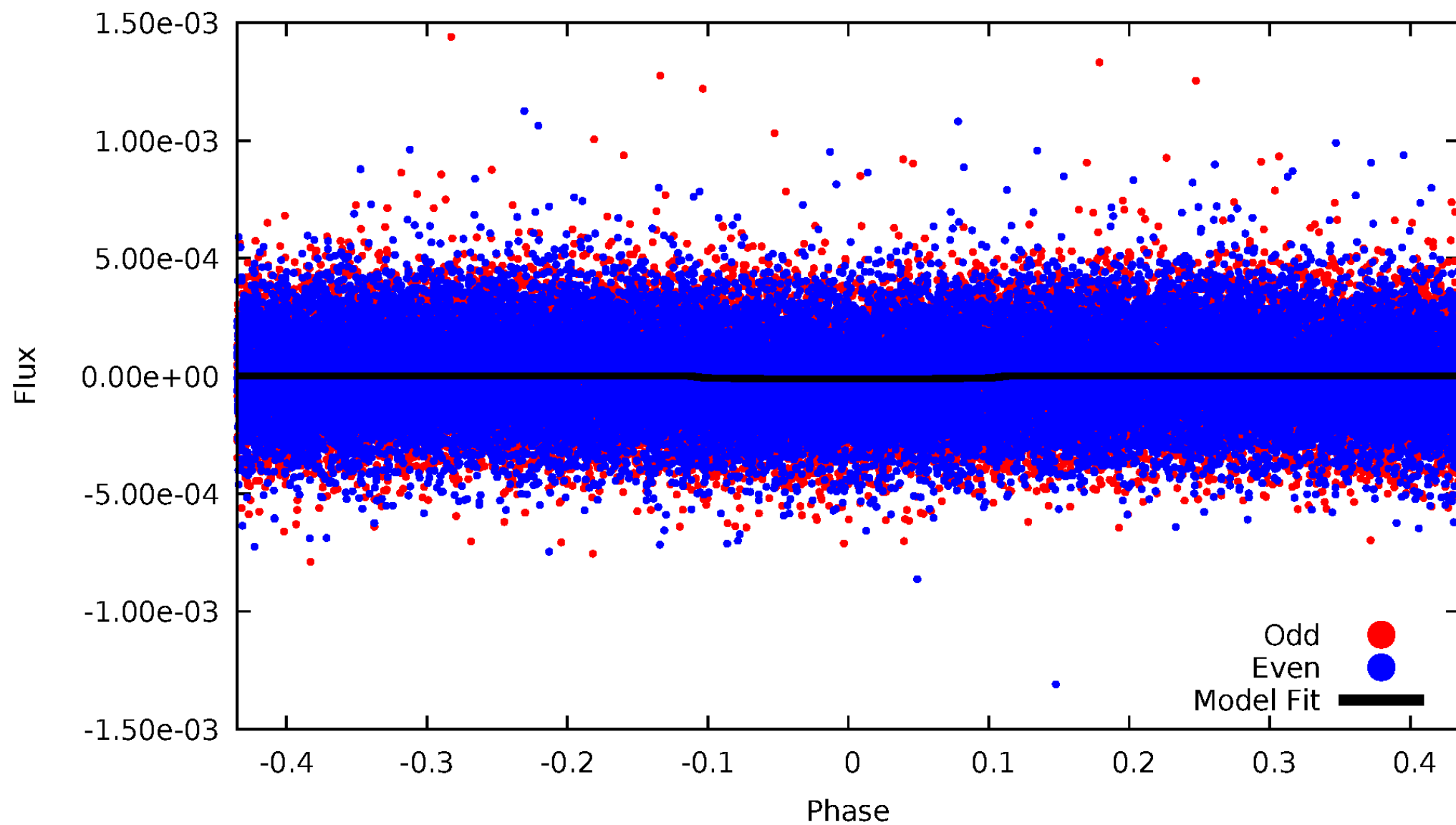


TCE 003955026-01



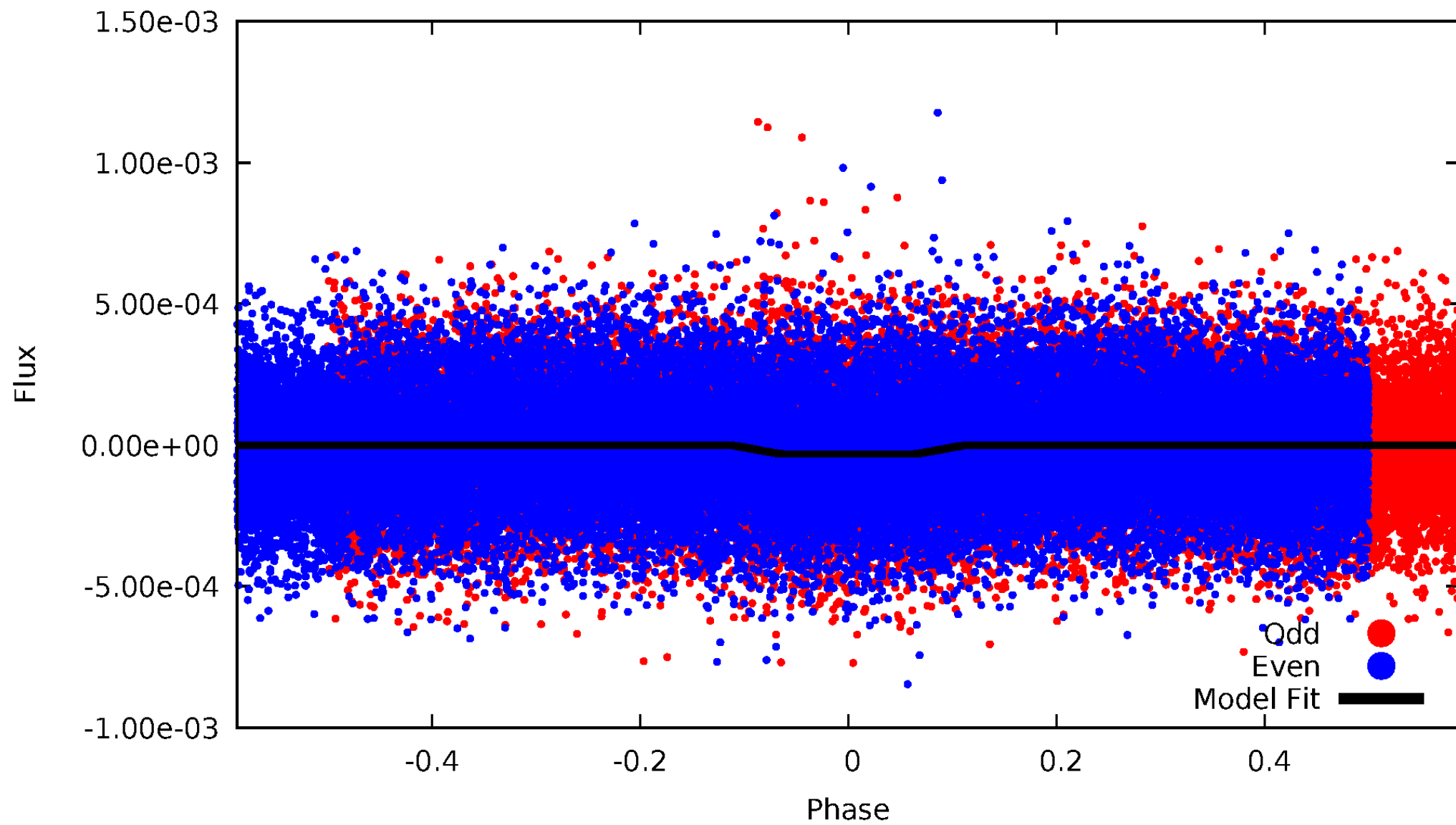
DV Odd/Even

TCE 003955026-01



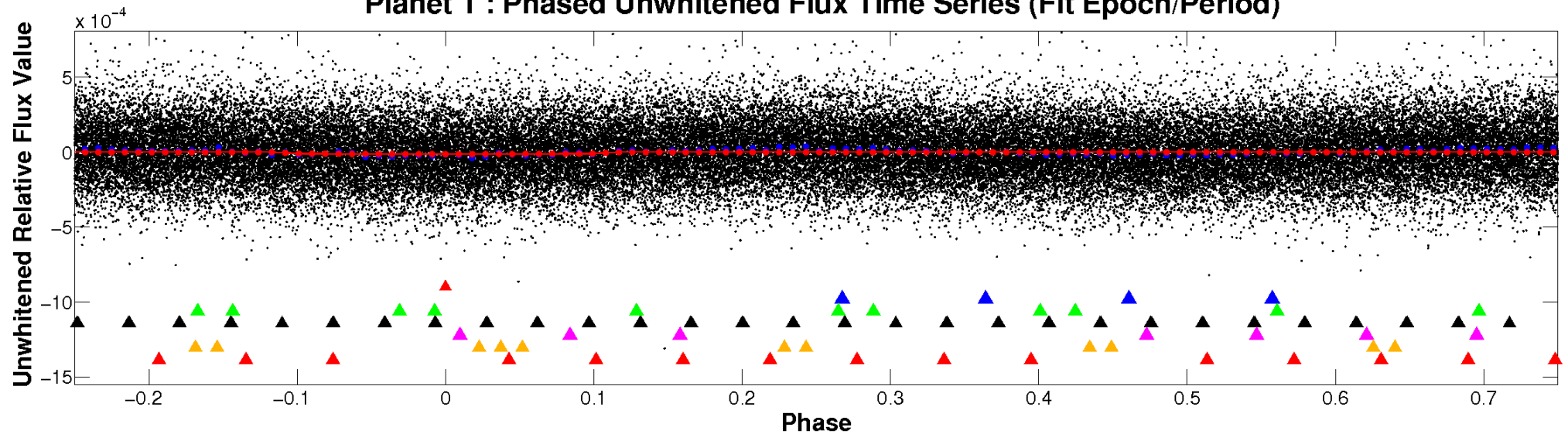
ALT Odd/Even

TCE 003955026-01

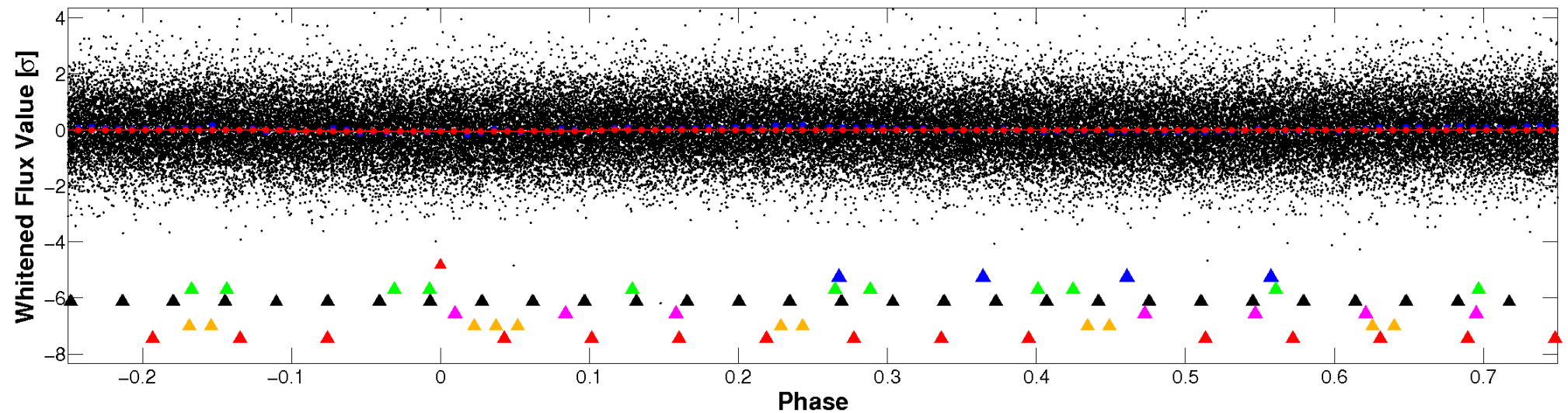


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

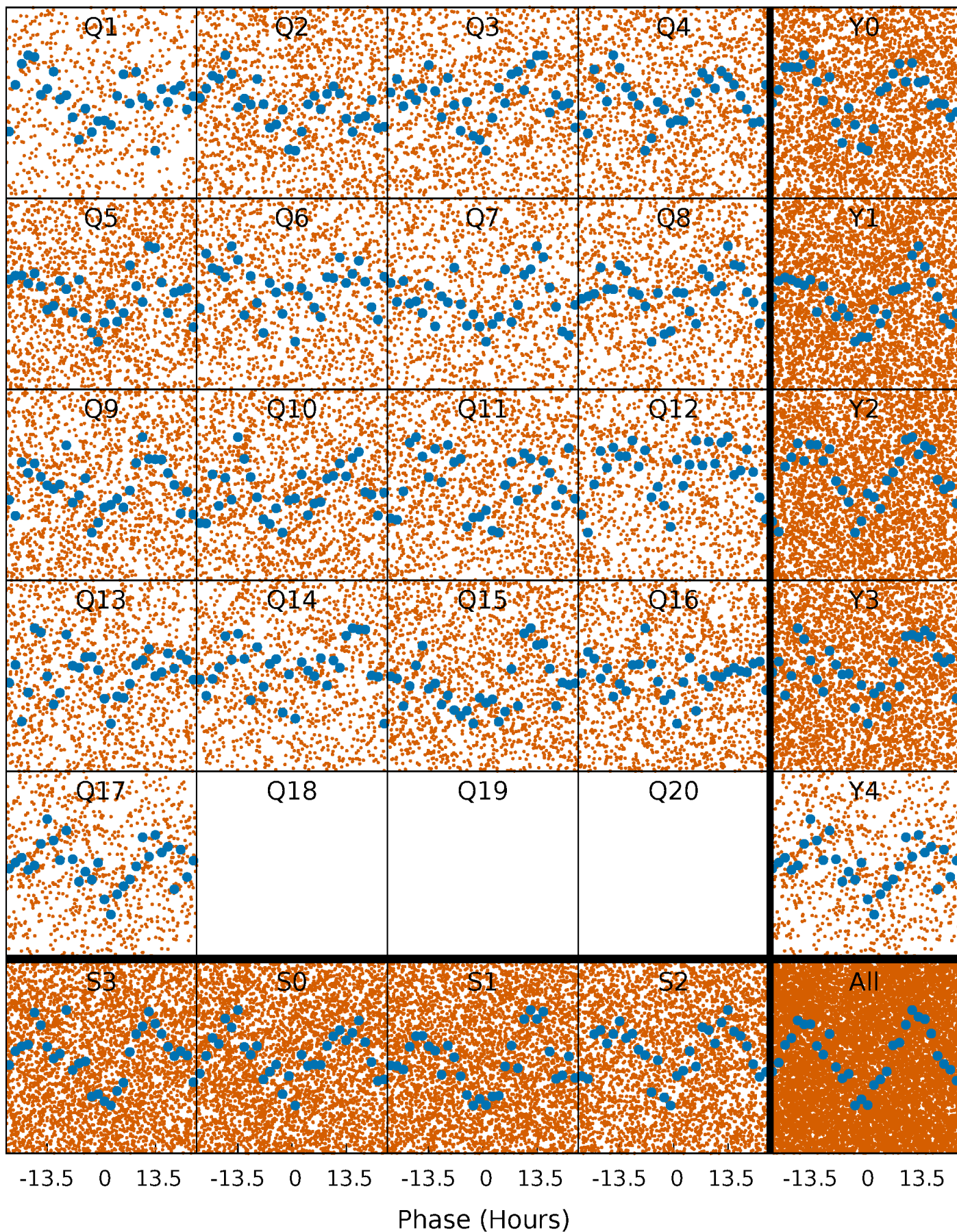


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



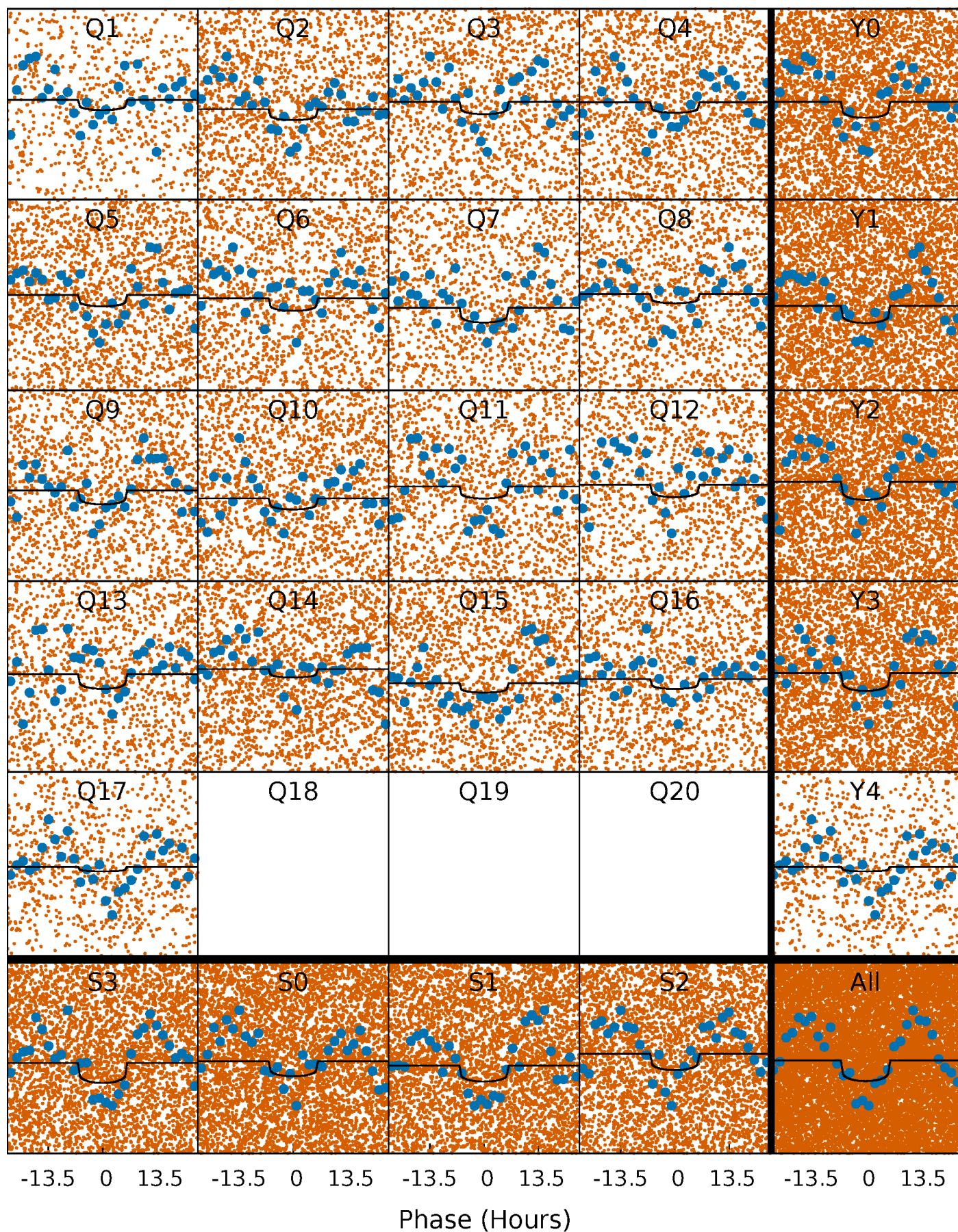
PDC Quarter-Phased Transit Curves

TCE 003955026-01 P= 2.269846 Days $T_0=132.925833$ (BKJD)



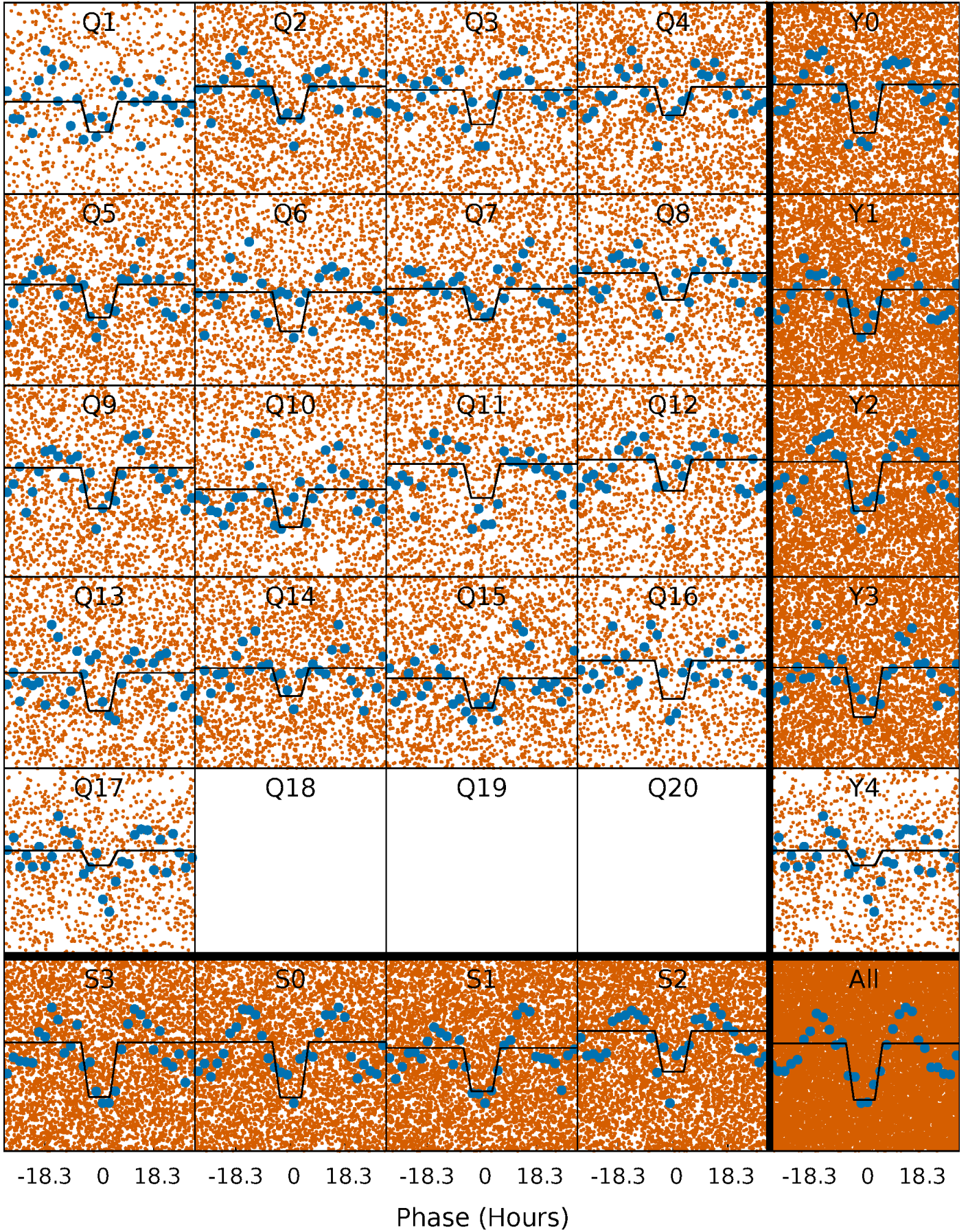
DV Quarter-Phased Transit Curves

TCE 003955026-01 P= 2.269846 Days $T_0=132.925833$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

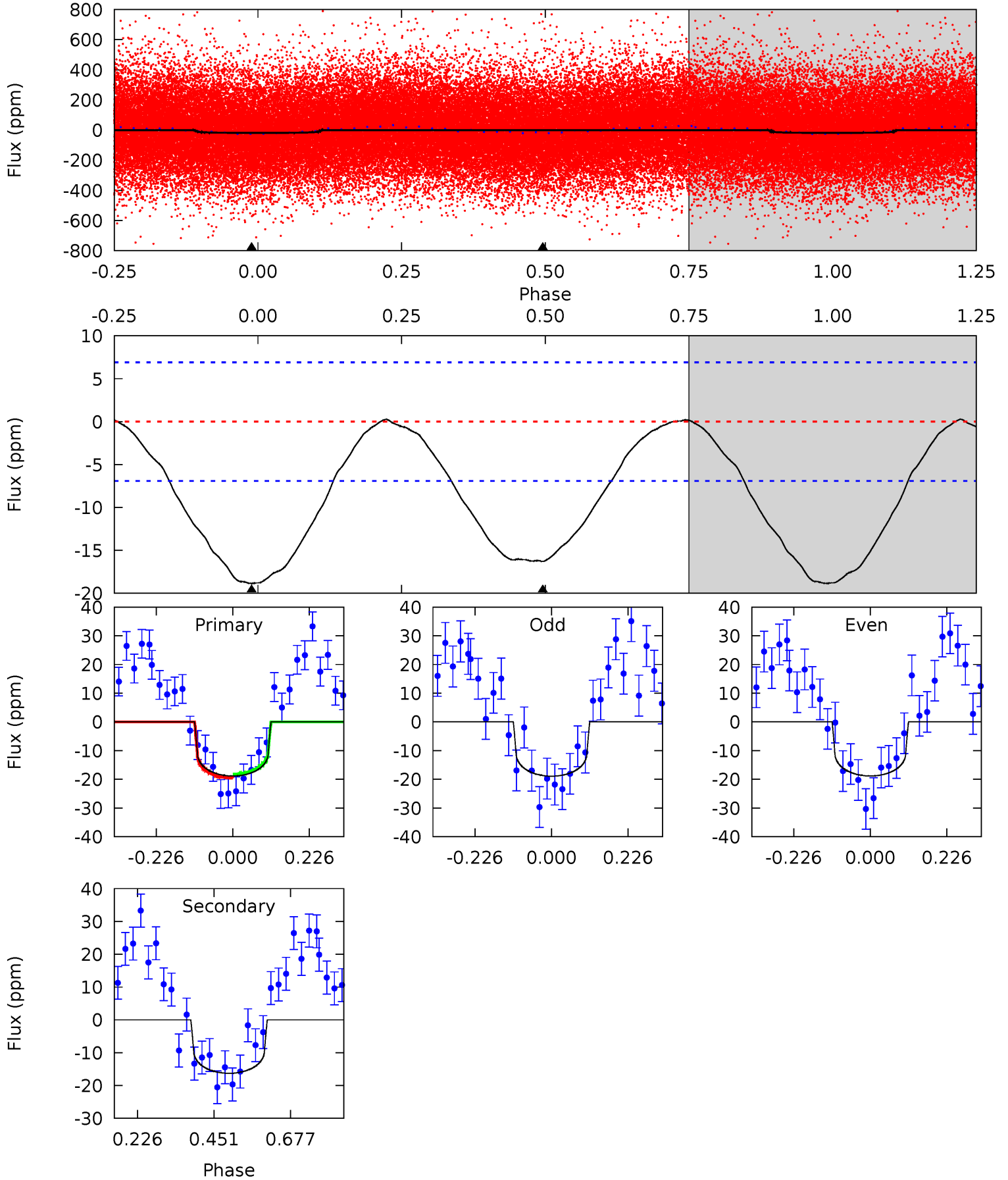
TCE 003955026-01 P= 2.269846 Days $T_0=132.908223$ (BKJD)



DV Model-Shift Uniqueness Test

003955026-01, P = 2.269846 Days, E = 130.655987 Days

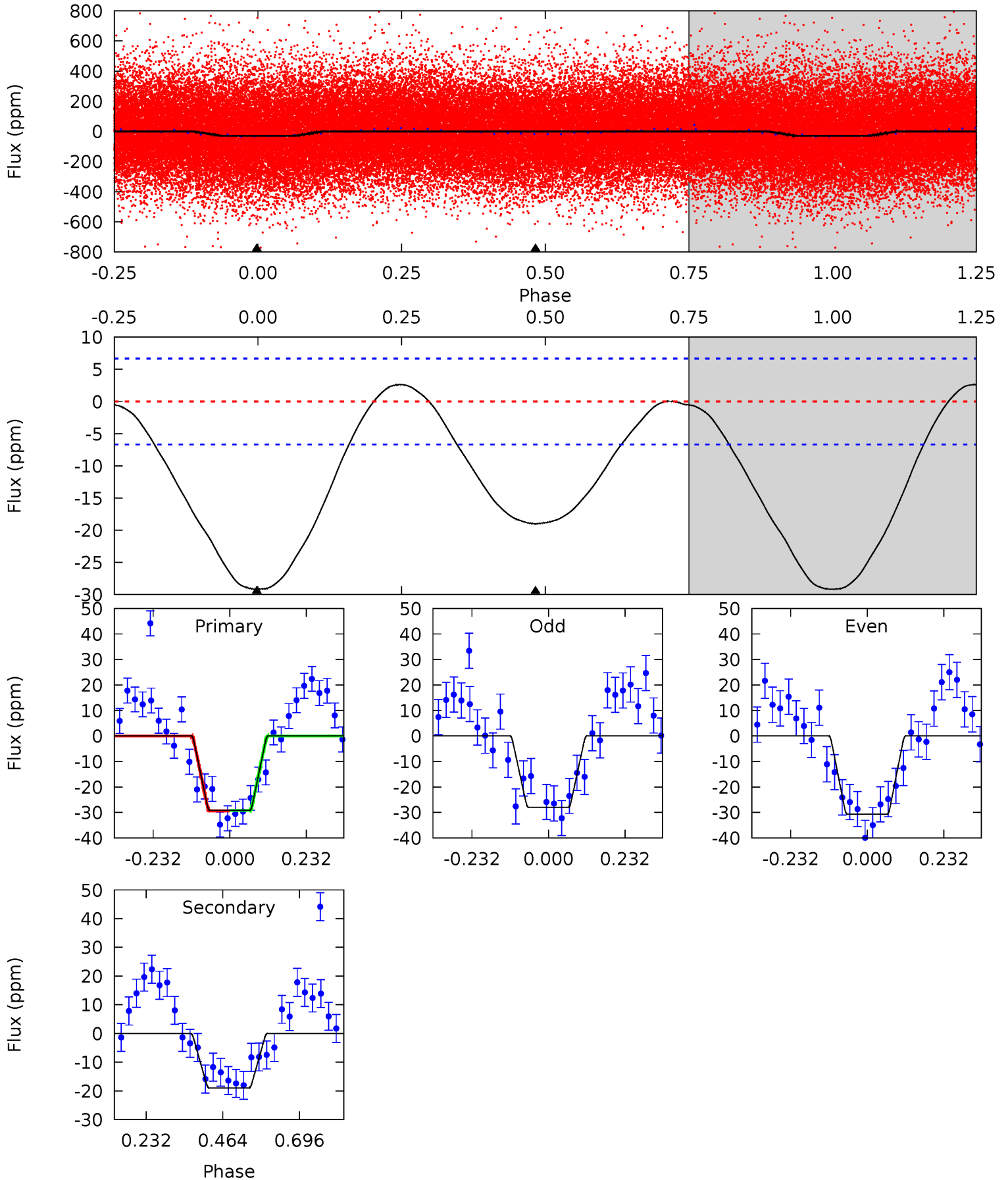
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.0	10.4	0	0	4.39	1.21	0.25	12.0	12.0	10.4	10.4	0.02	1.18	0.01	0.44



Alt Model-Shift Uniqueness Test

003955026-01, P = 2.269846 Days, E = 130.638377 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.2	12.5	0	0	4.38	1.20	0.93	19.2	19.2	12.5	12.5	0.89	1.06	0.08	0.06



Stellar Parameters For KIC 003955026

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6887^{+214}_{-285}	$4.055^{+0.246}_{-0.164}$	$-0.260^{+0.300}_{-0.300}$	$1.826^{+0.522}_{-0.522}$	$1.383^{+0.207}_{-0.253}$	$0.320^{+0.440}_{-0.151}$
	+3%/-4%	+6%/-4%	+115%/-115%	+29%/-29%	+15%/-18%	+137%/-47%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 003955026-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-16 ± 2	$1.05^{+0.94}_{-0.74}$	2925^{+247}_{-254}	5931^{+6900}_{-1529}	12^{+113}_{-8}
Alt.	-19 ± 2	$1.25^{+1.02}_{-0.84}$	2929^{+233}_{-245}	5517^{+5424}_{-1255}	$9.340^{+76.771}_{-6.536}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

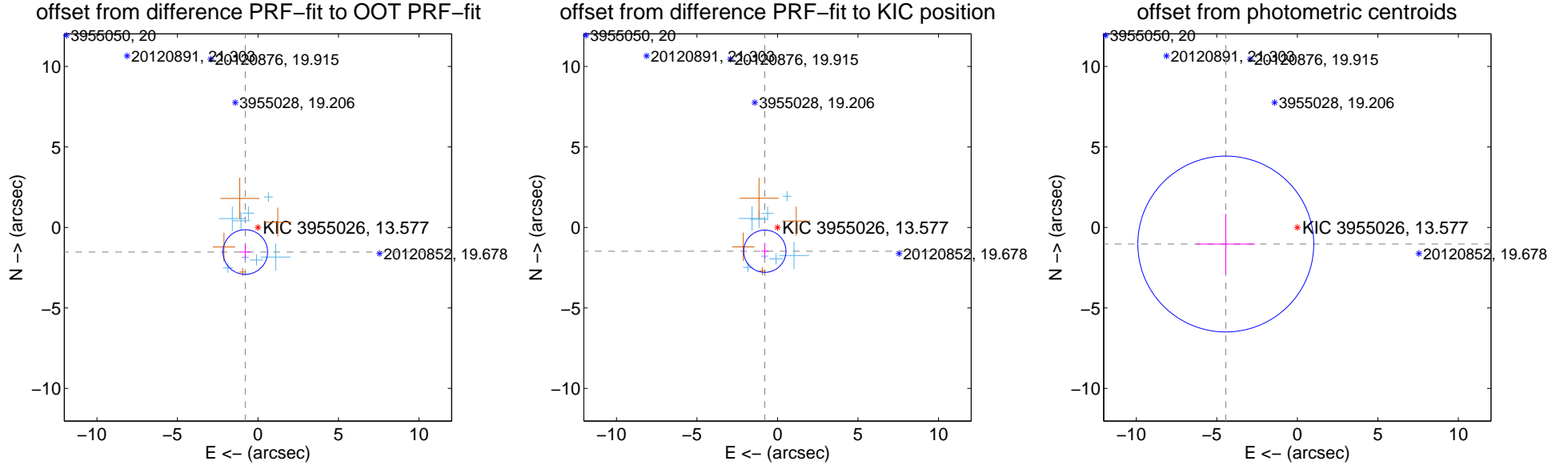
DV Centroid Data

Supplemental centroid analysis for 003955026-01. Kepler magnitude: 13.58. Transit SNR 4.96

There are 8 quarters with good PRF difference image offsets

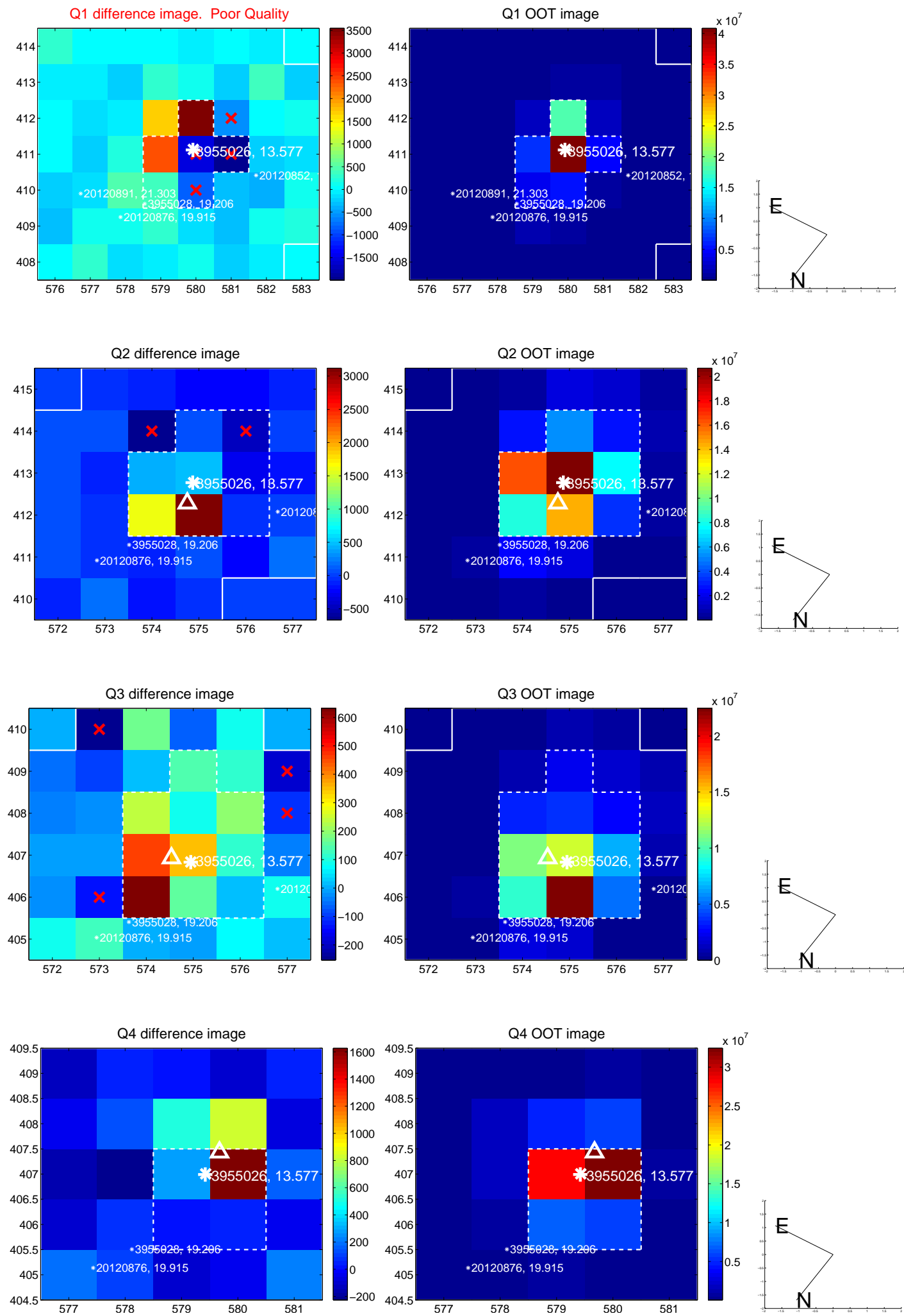
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.717 ± 0.462	3.72	0.787 ± 0.333	-1.526 ± 0.469
PRF-fit source offset from KIC position	1.674 ± 0.437	3.83	0.787 ± 0.240	-1.478 ± 0.479
photometric centroid source offset	4.56 ± 1.82	2.51	4.44 ± 1.82	-1.03 ± 1.88

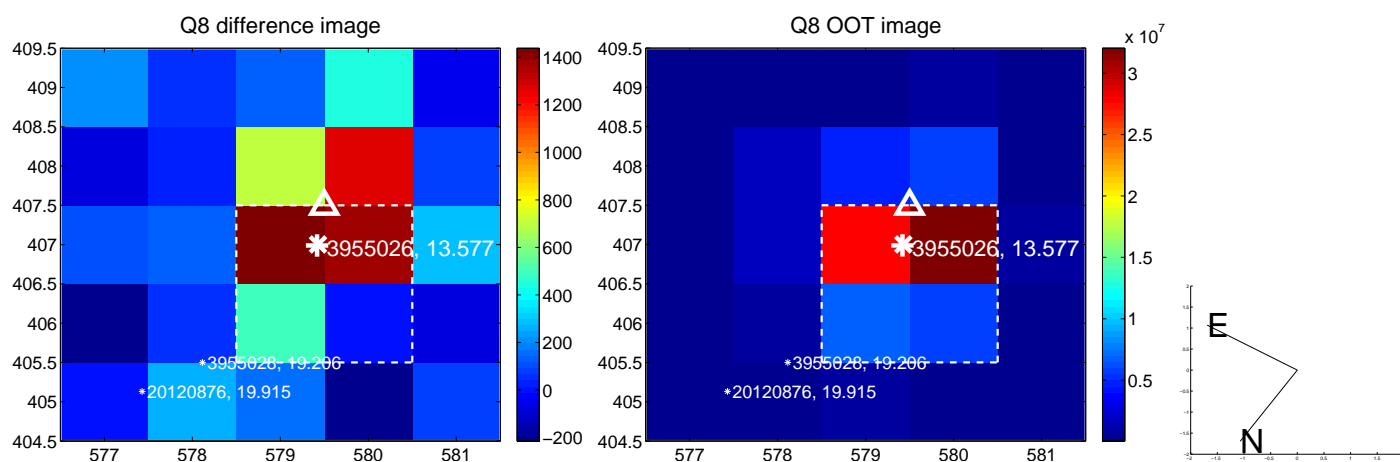
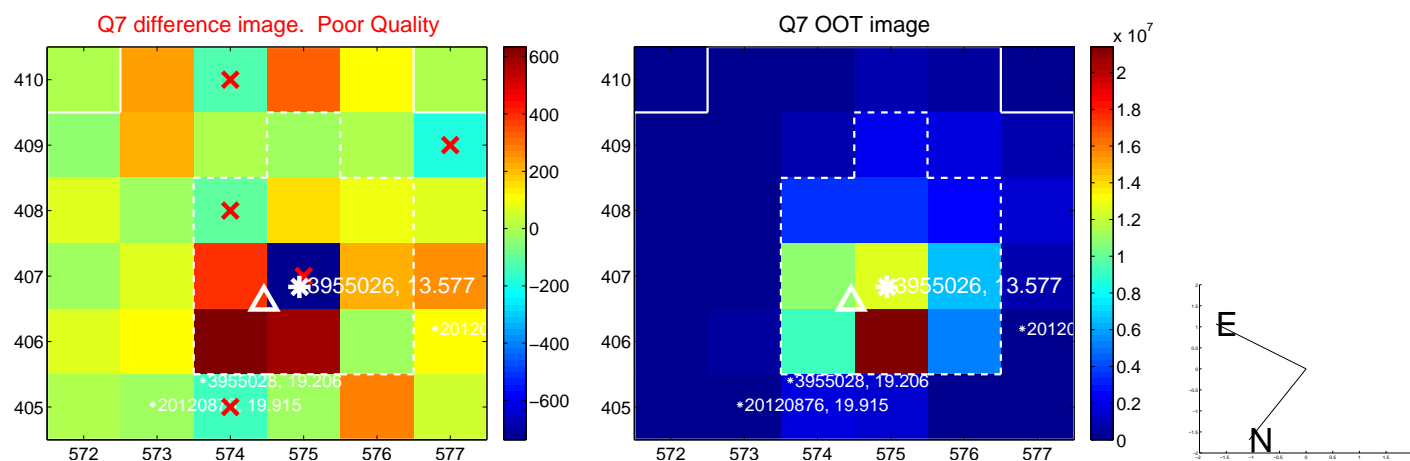
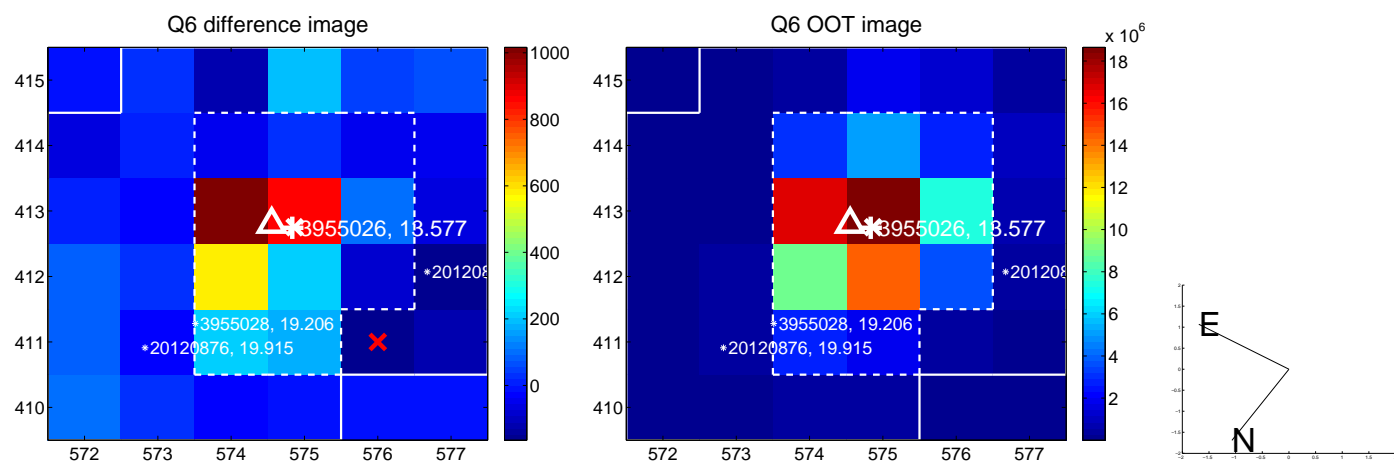
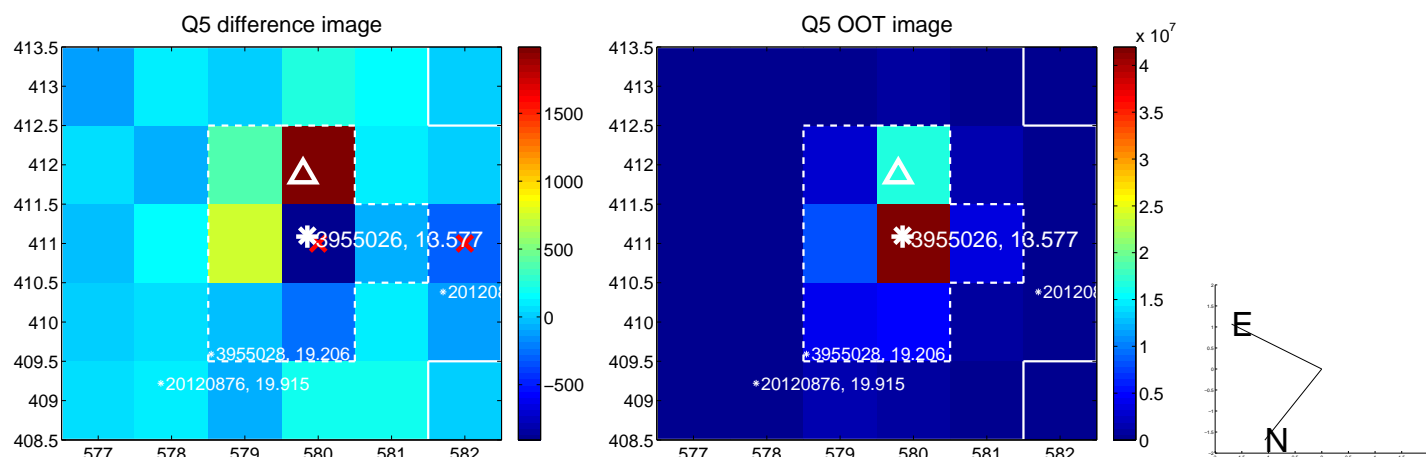


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

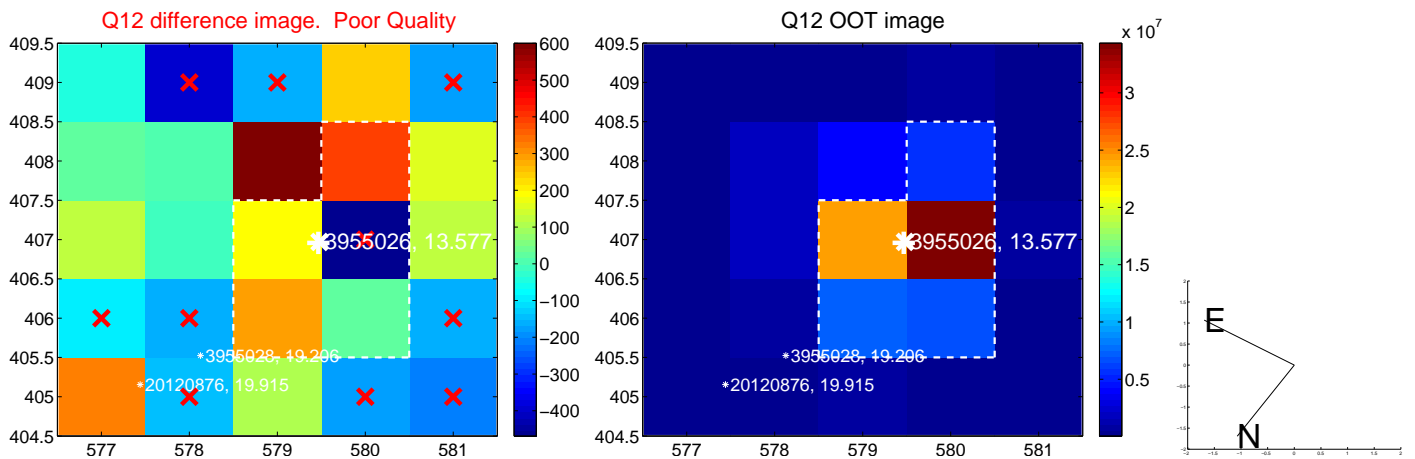
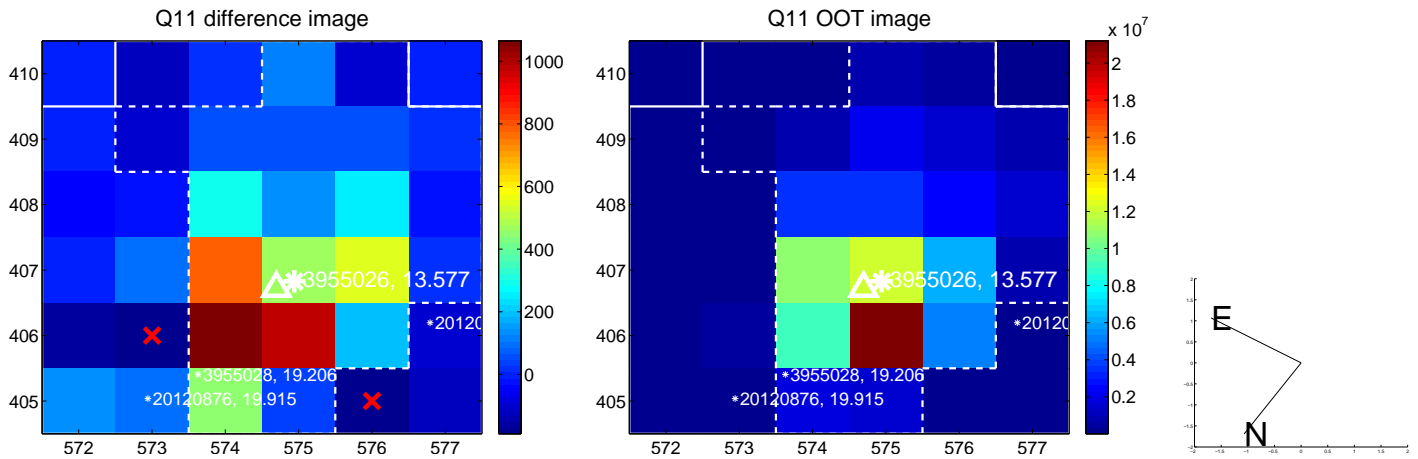
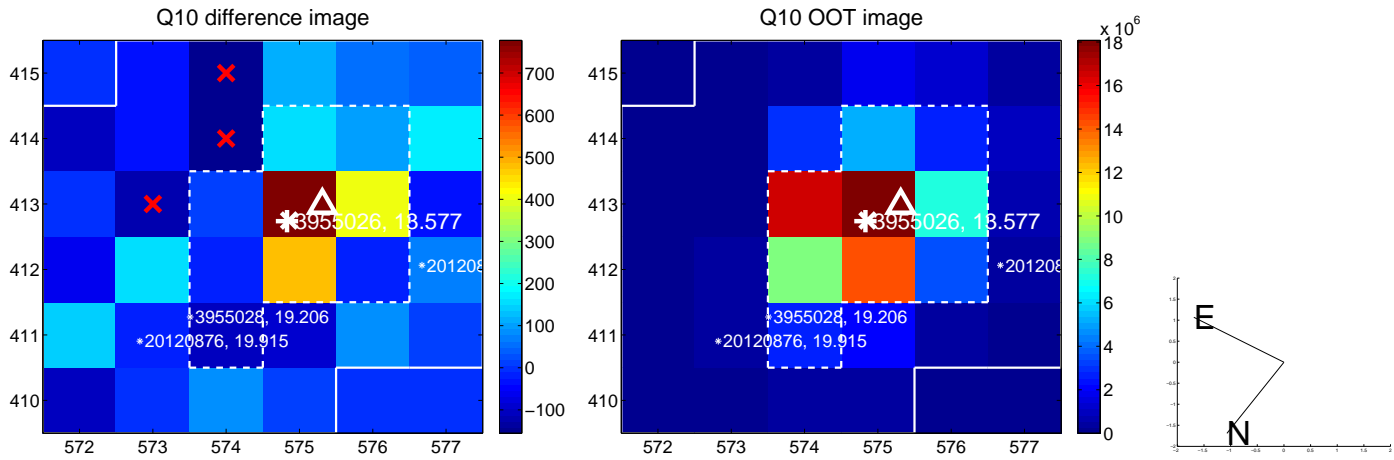
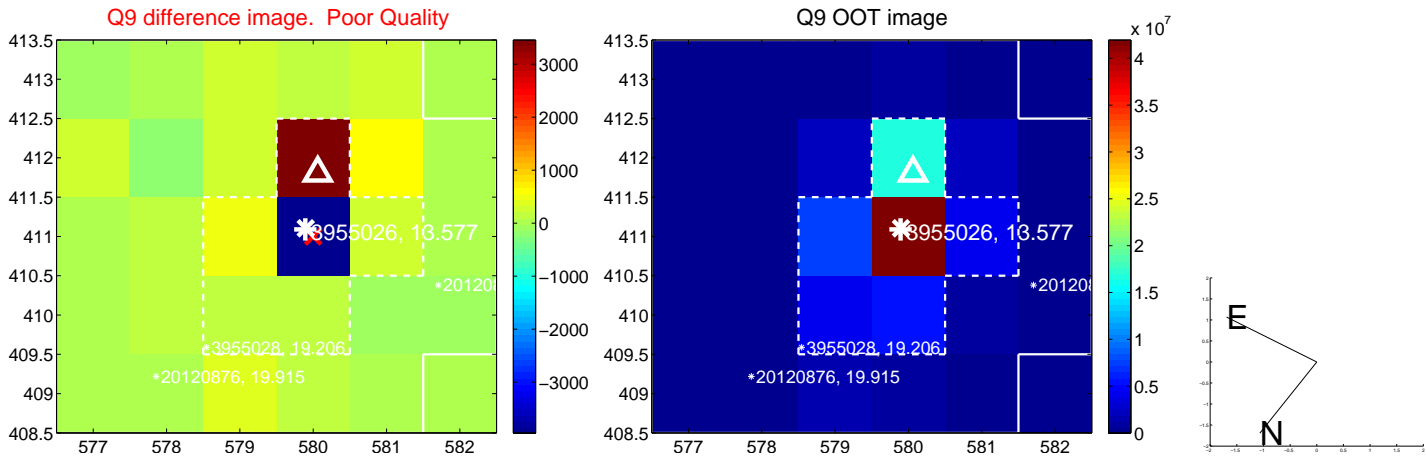
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



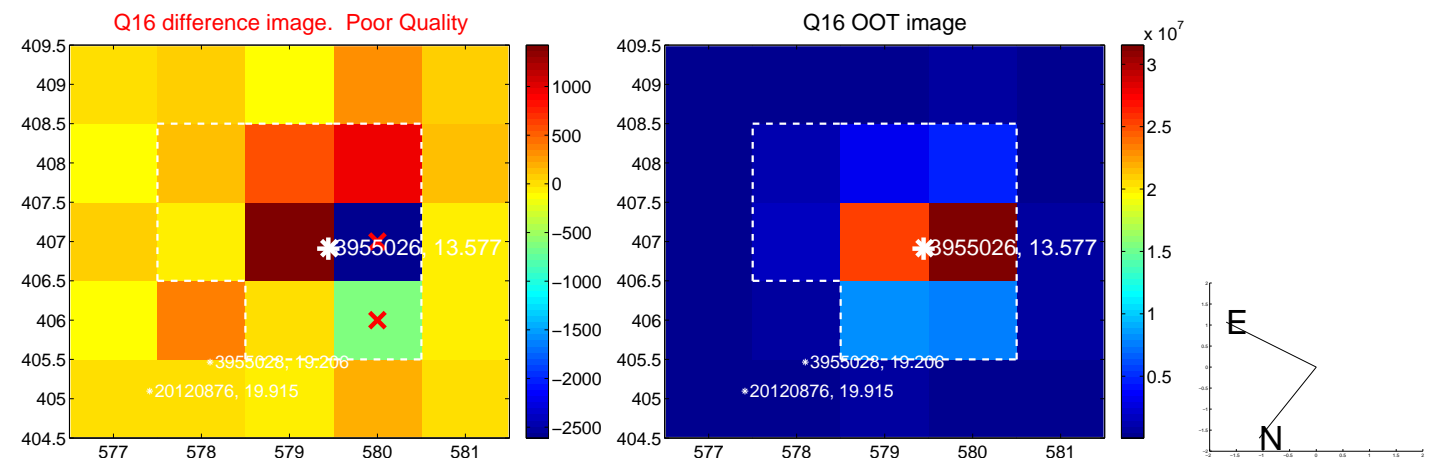
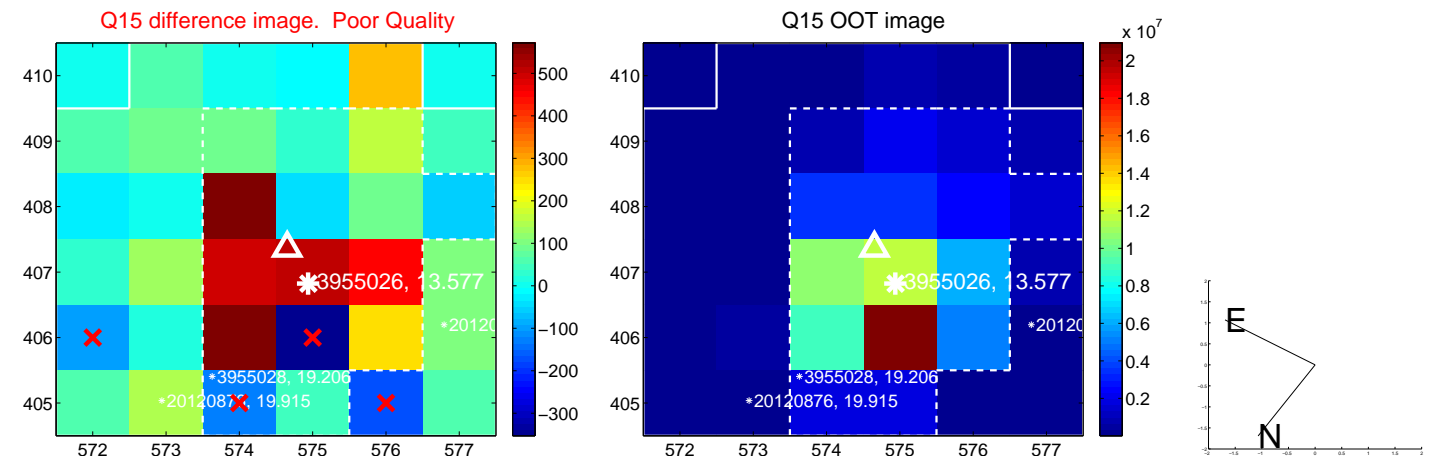
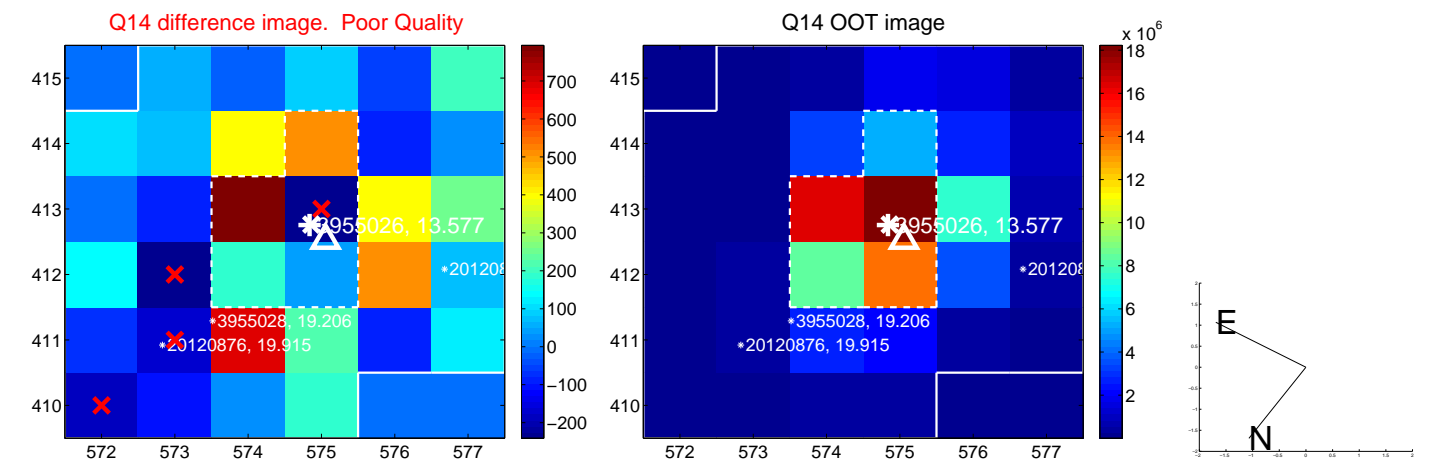
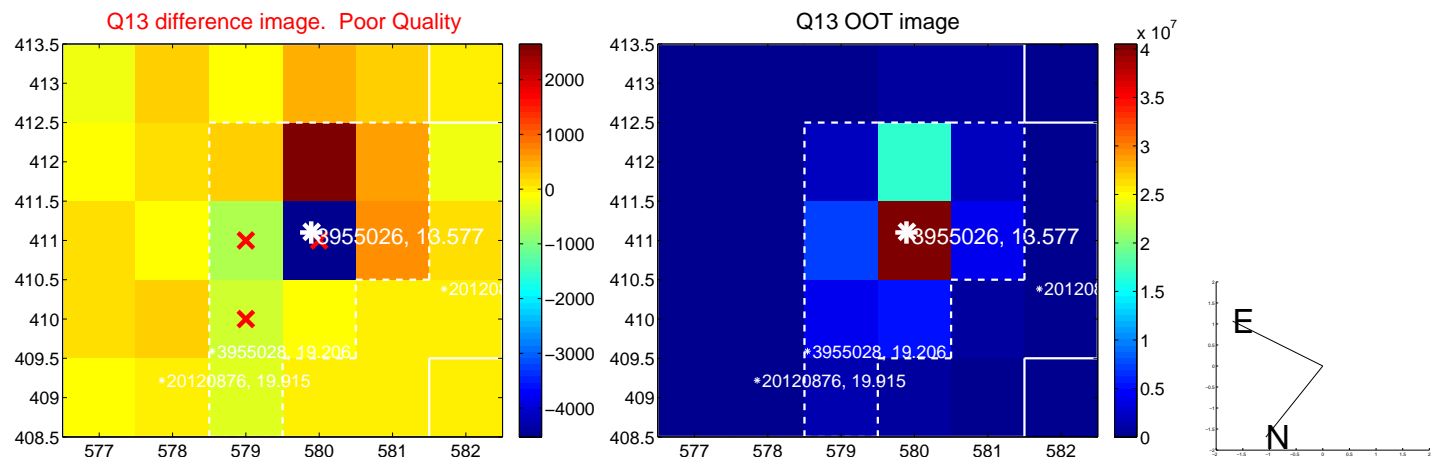
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



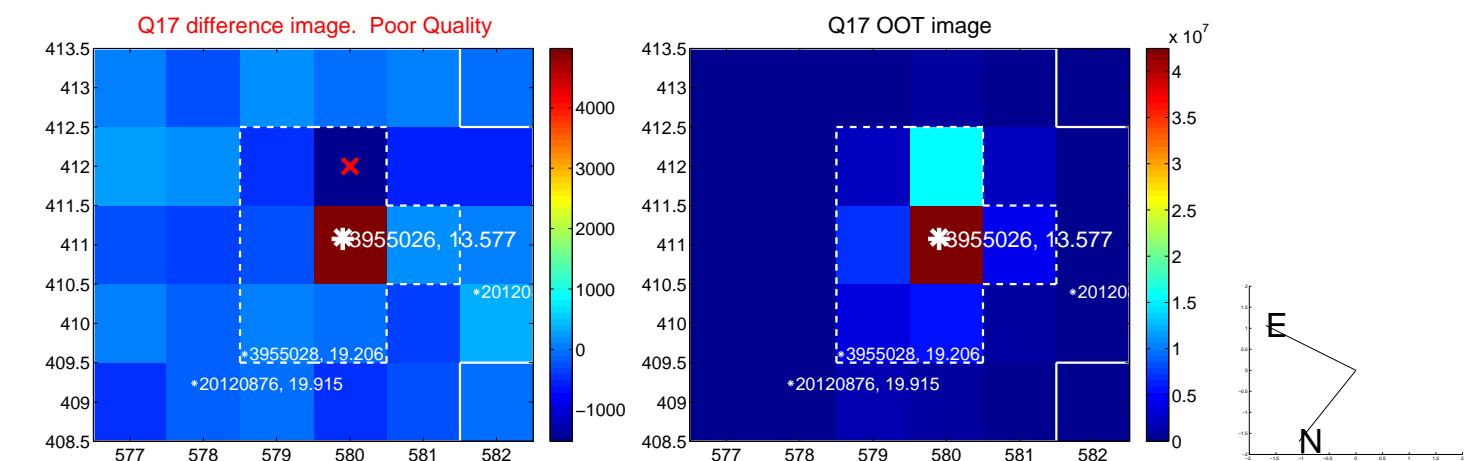
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



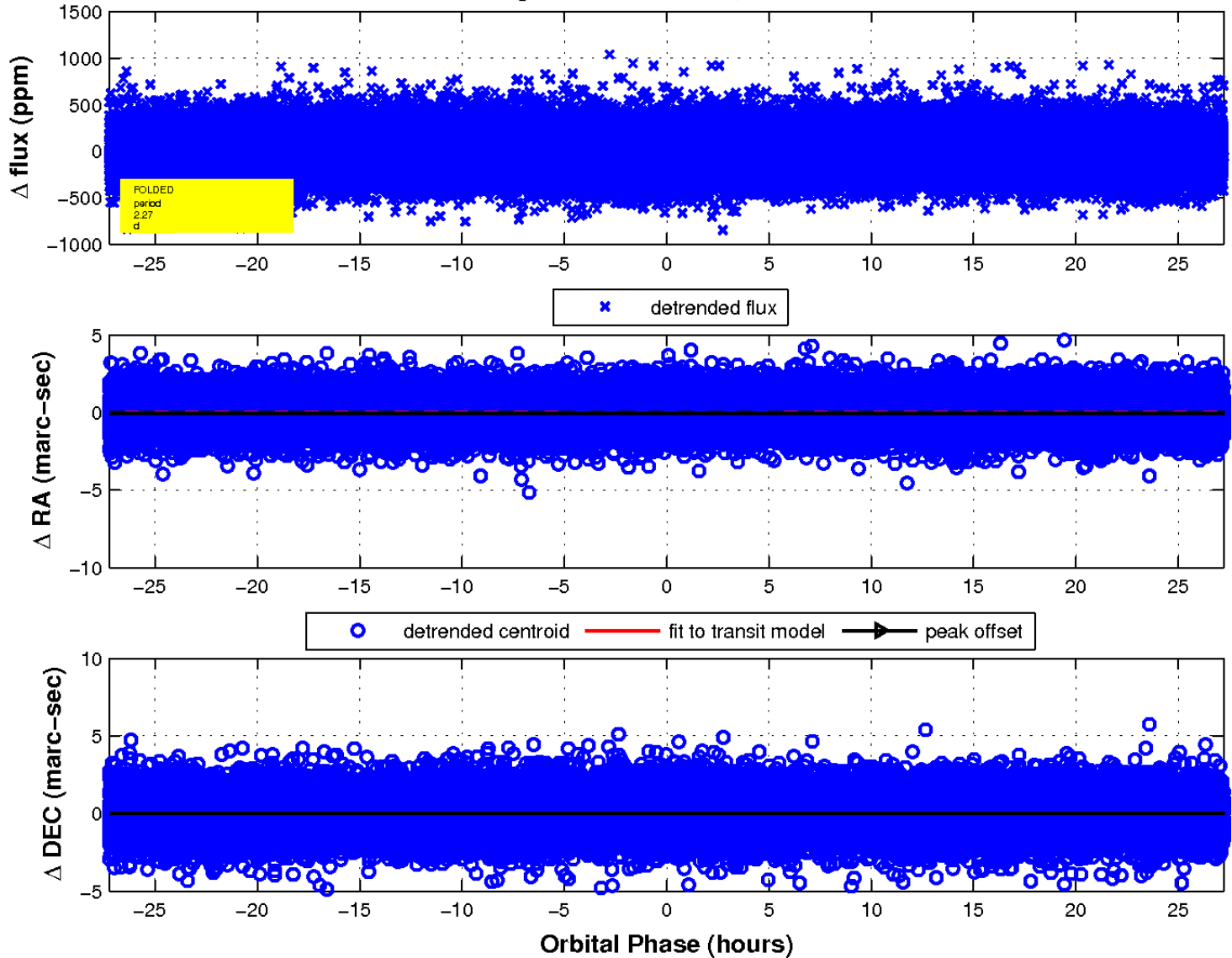
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

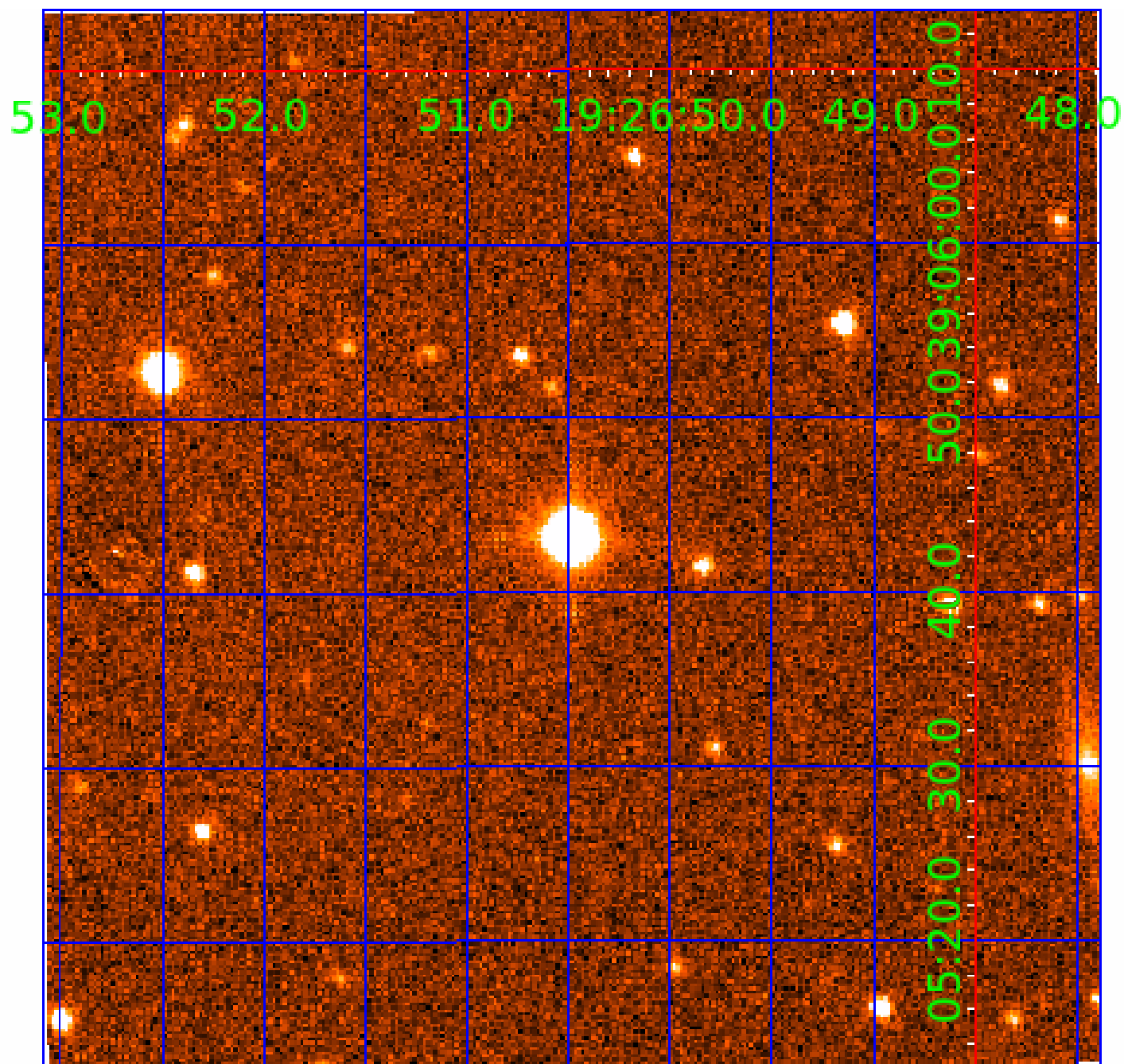


fluxWeightedCentroids, Planet 1 of 7



UKIRT Image

Declination



KIC 003955026

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
003955026-01	OBS	No	2.269846	132.925833	12.1	11.851	7.6	5.0	1.83	6887	0.64	4742.64
003955026-02	OBS	No	472.347430	158.501324	210.4	27.735	9.4	8.9	1.83	6887	3.06	3.85
003955026-03	OBS	No	137.480174	208.485675	400.2	2.120	7.8	8.5	1.83	6887	4.25	19.94
003955026-04	OBS	No	26.298968	145.354003	145.5	2.576	7.8	7.6	1.83	6887	2.48	180.90
003955026-05	OBS	No	210.044960	143.078264	335.9	3.609	7.5	8.0	1.83	6887	3.76	11.33
003955026-06	OBS	No	141.631780	173.900844	338.2	2.378	7.2	8.1	1.83	6887	3.92	19.16
003955026-07	OBS	No	96.535051	211.266209	302.1	2.559	7.4	7.9	1.83	6887	3.53	31.95

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003955026-01	OBS	FP	0.00	1	0	0	0	LPP_DV
003955026-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
003955026-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
003955026-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
003955026-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
003955026-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS—HALO_GHOST
003955026-07	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

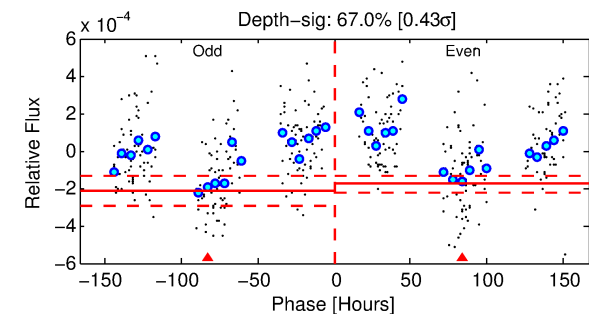
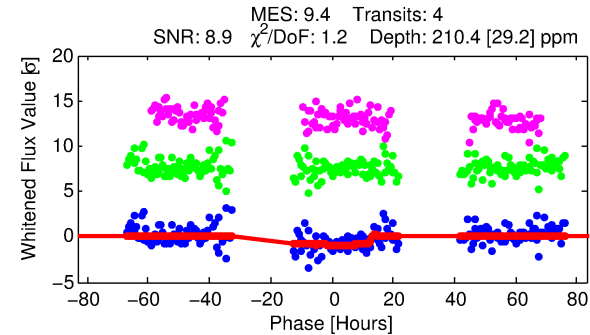
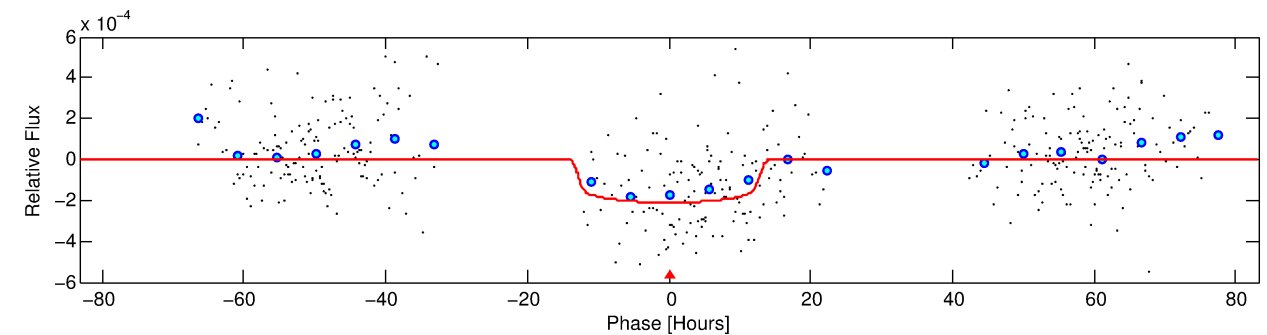
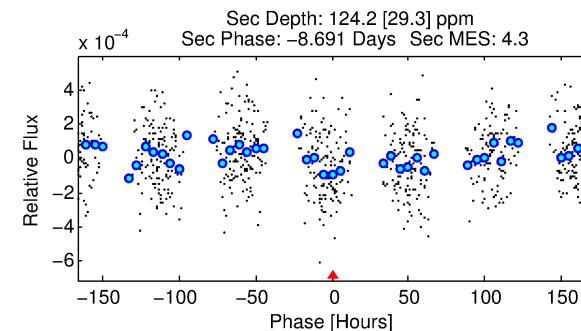
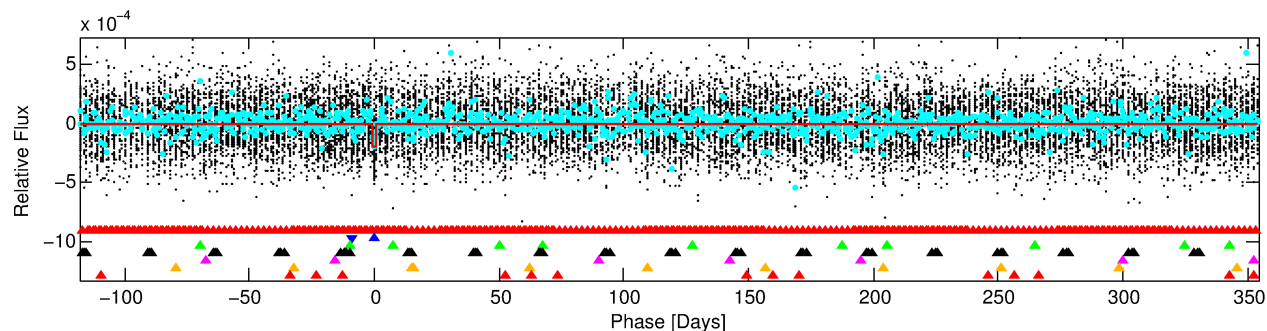
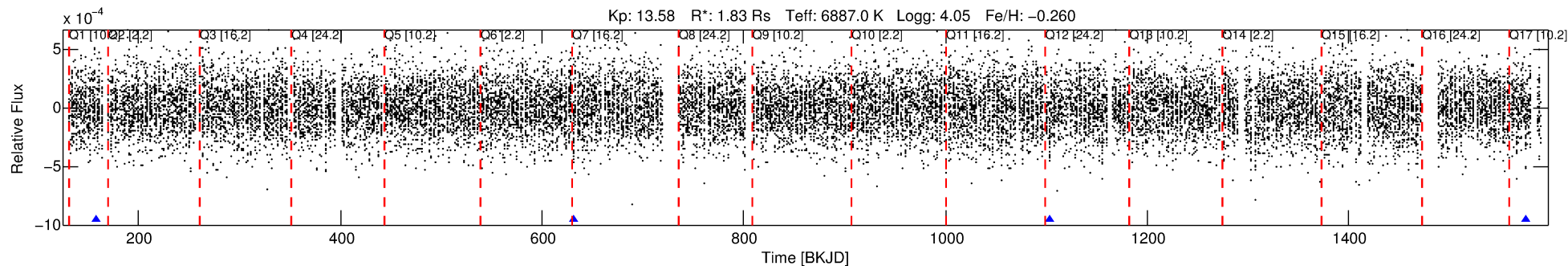
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003955026-02

No Significant Match Found

DV One-Page Summary

KIC: 3955026 Candidate: 2 of 7 Period: 472.347 d



DV Fit Results:

Period = 472.34743 [0.06973] d
Epoch = 158.5013 [0.1454] BKJD
Rp/R* = 0.0154 [0.0027]
a/R* = 62.78 [64.43]
b = 0.89 [0.21]
Seff = 3.85 [1.75]
Teq = 357 [41] K
Rp = 3.06 [1.03] Re
a = 1.3219 [0.3546] AU
Ag = 12727.90 [7605.56] [1.67 σ]
Teffp = 5864 [665] K [8.27 σ]

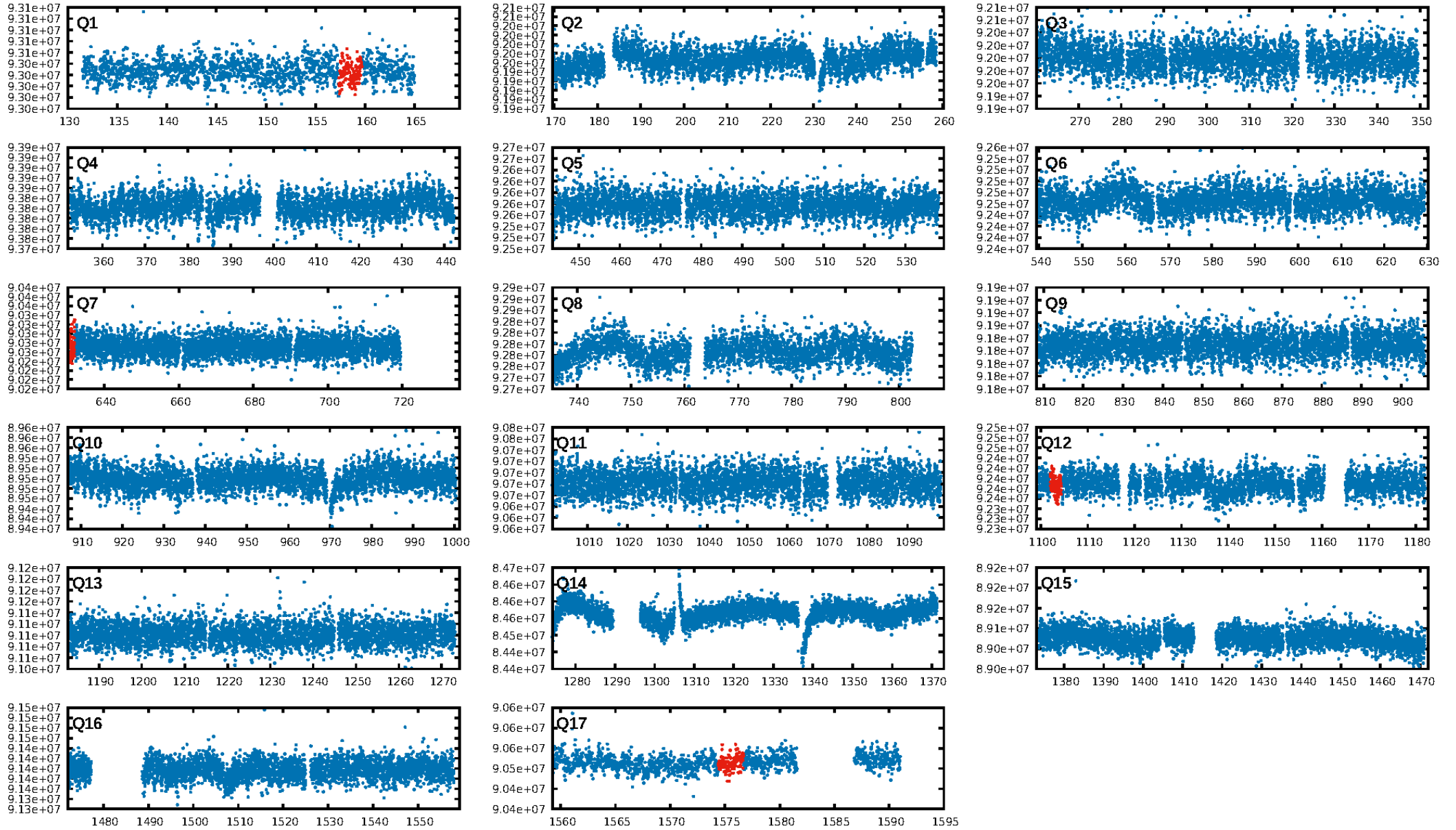
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [225.08 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.05e-13
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: 3.542
Centroid-sig: 12.6%
Centroid-so: 1.118 arcsec [1.35 σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 0.00 [0/2]

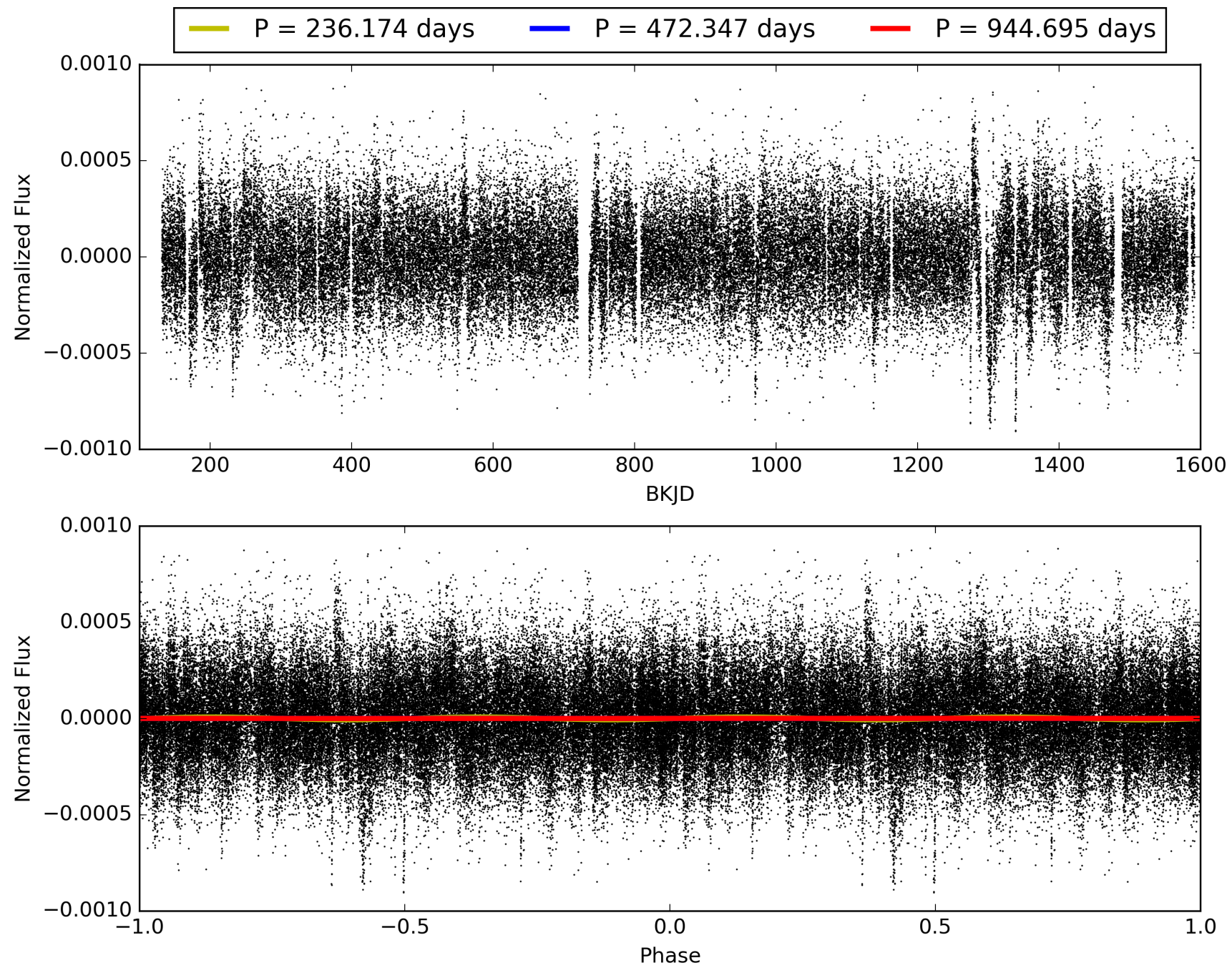
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 11:24:48 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 003955026-02, PDC Light Curves

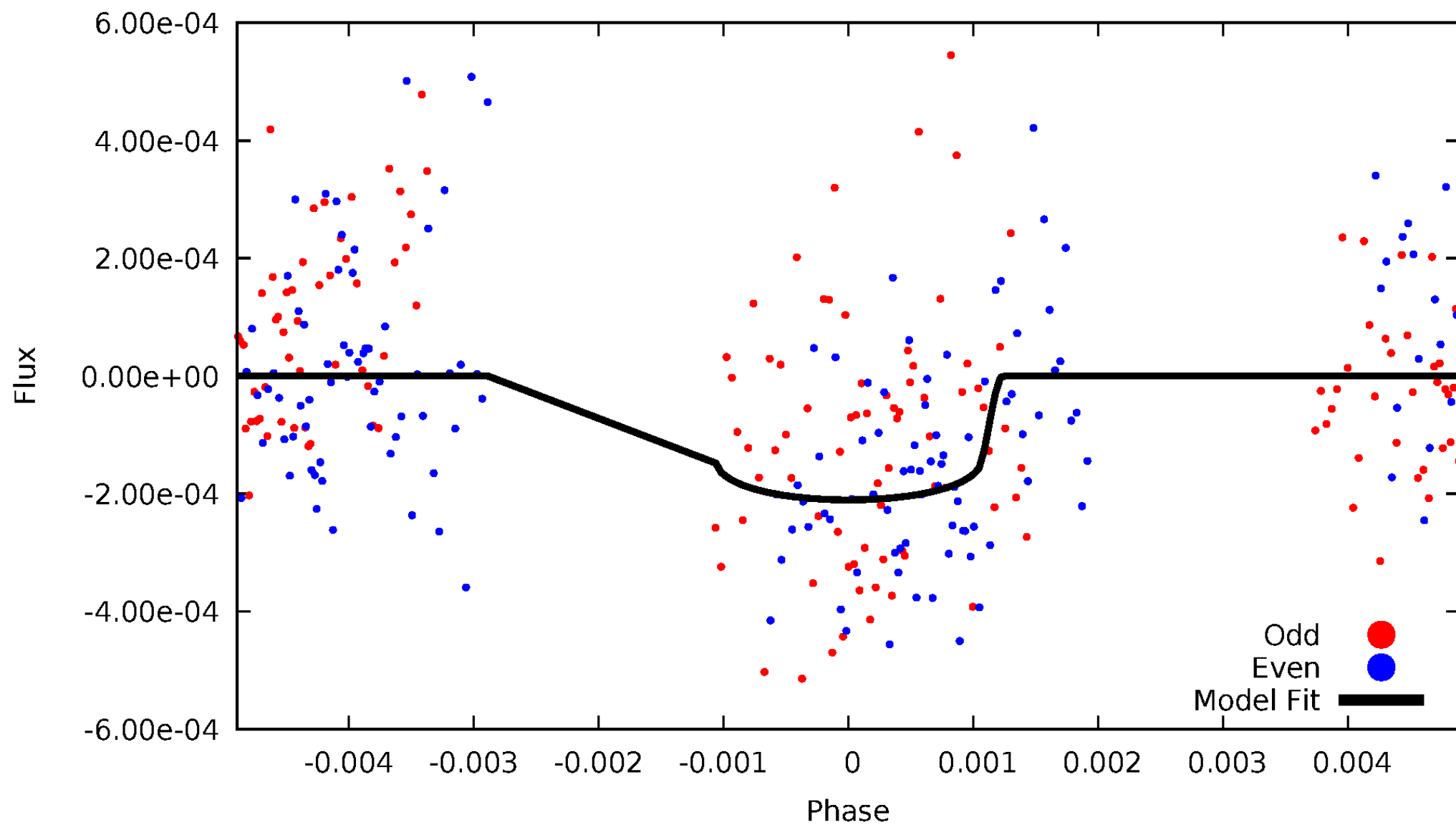


TCE 003955026-02



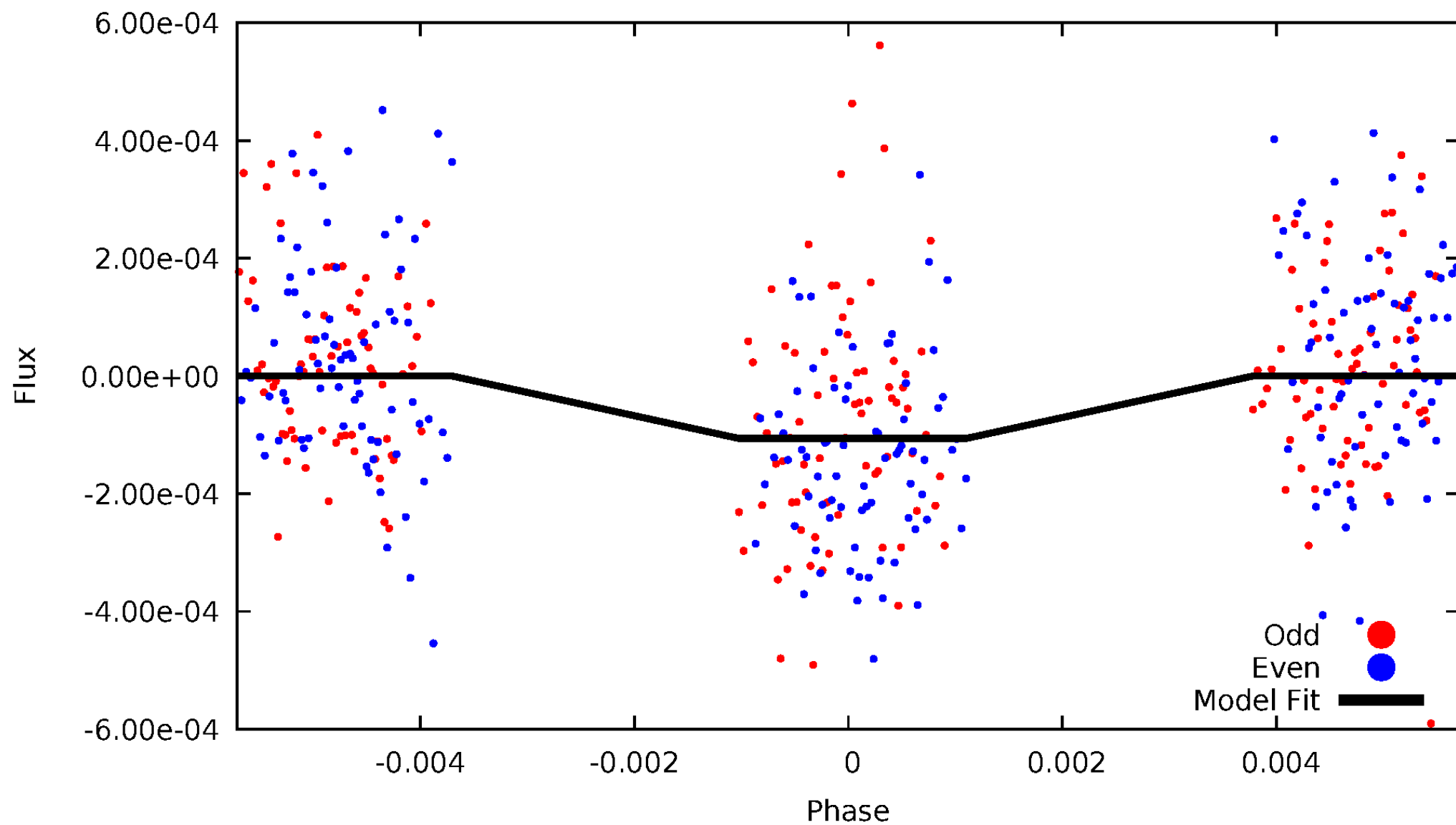
DV Odd/Even

TCE 003955026-02



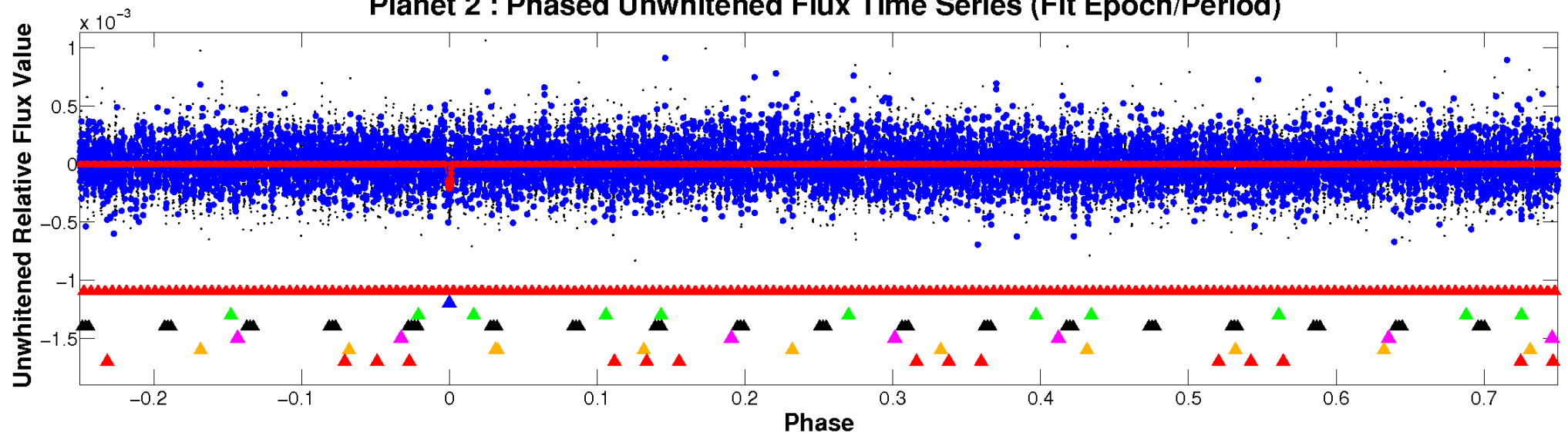
ALT Odd/Even

TCE 003955026-02

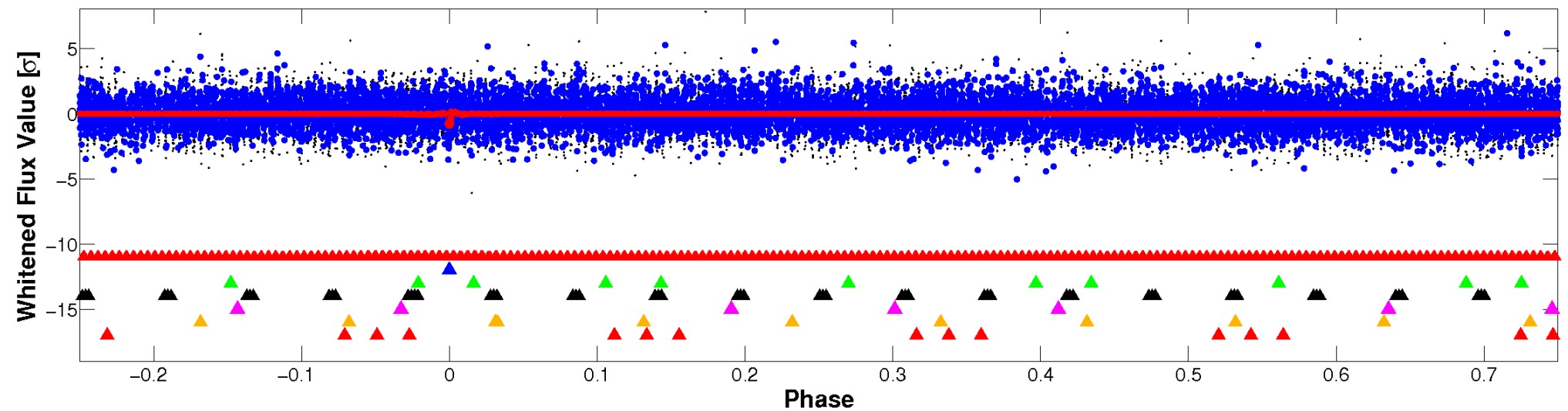


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)



Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



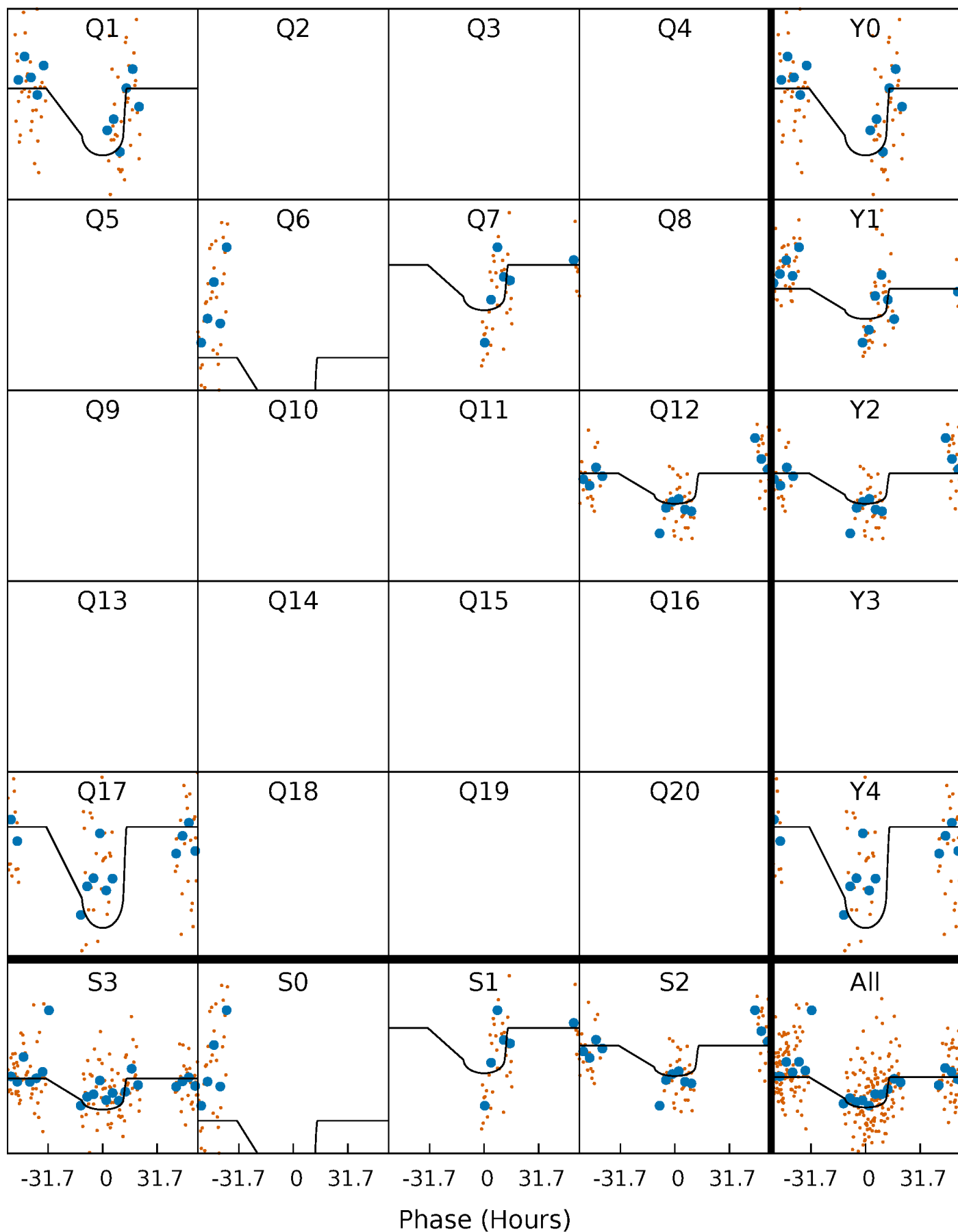
PDC Quarter-Phased Transit Curves

TCE 003955026-02 $P=472.347430$ Days $T_0=158.501324$ (BKJD)



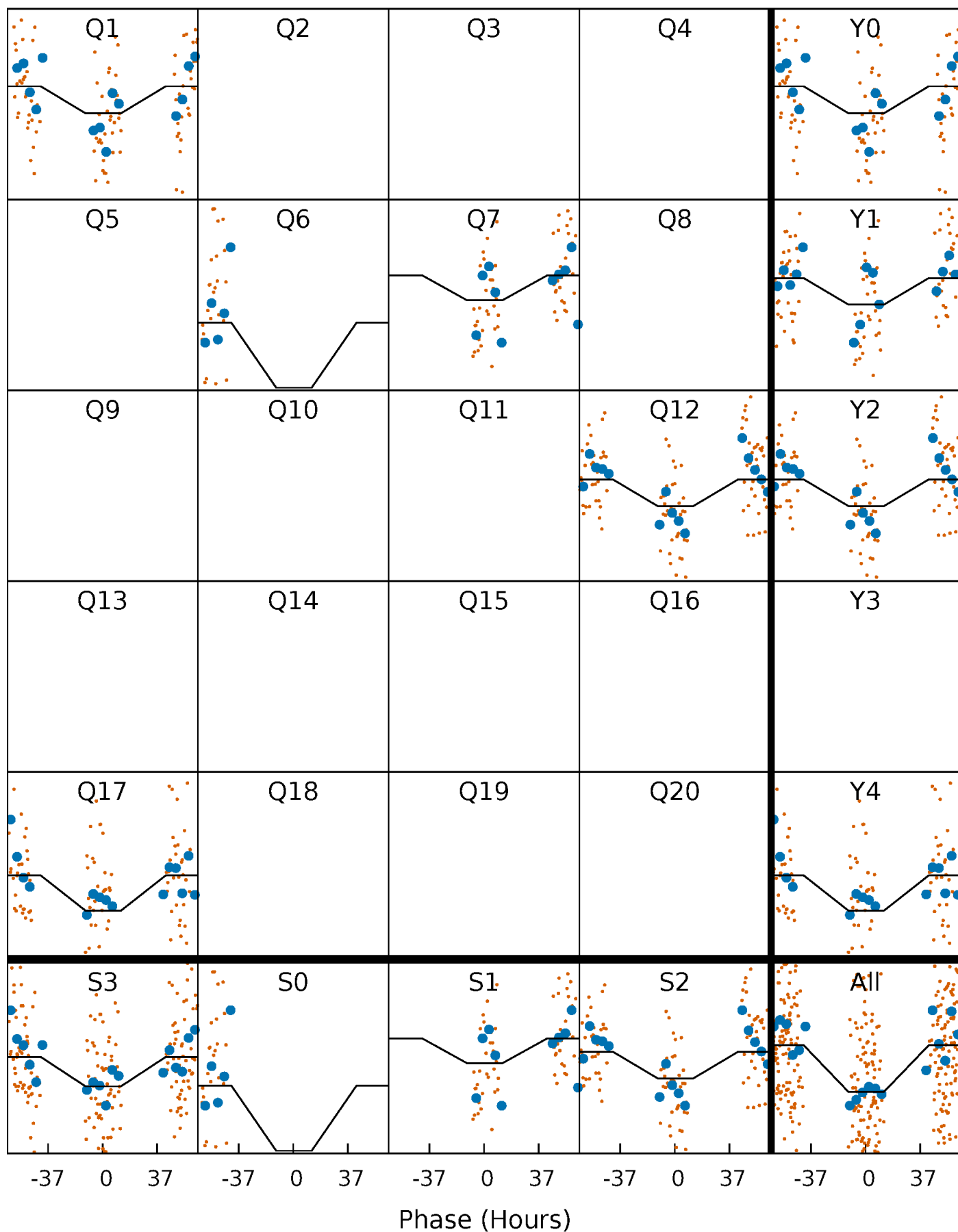
DV Quarter-Phased Transit Curves

TCE 003955026-02 $P=472.347430$ Days $T_0=158.501324$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

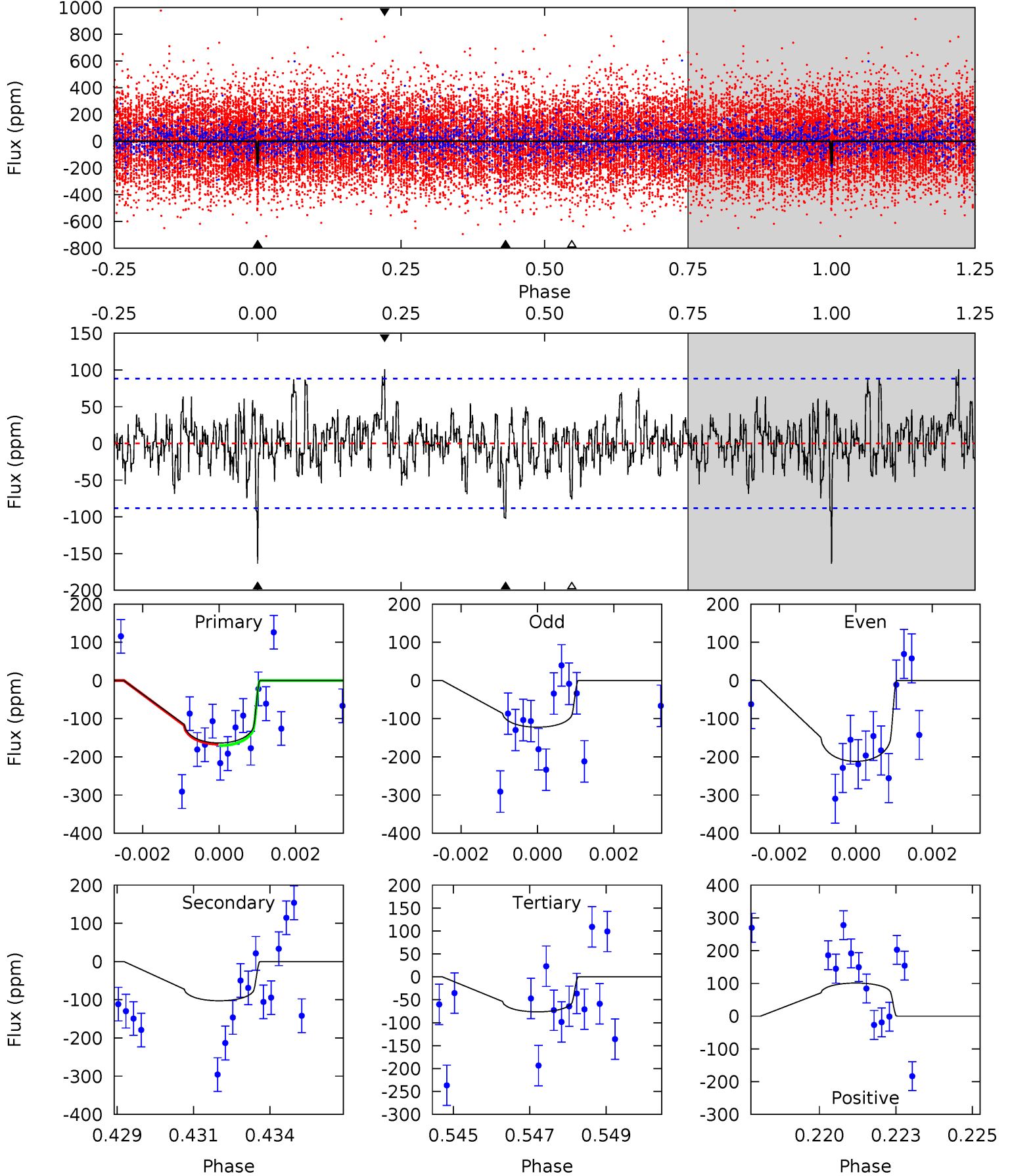
TCE 003955026-02 P=472.212760 Days $T_0=158.886009$ (BKJD)



DV Model-Shift Uniqueness Test

003955026-02, P = 472.347430 Days, E = 158.501324 Days

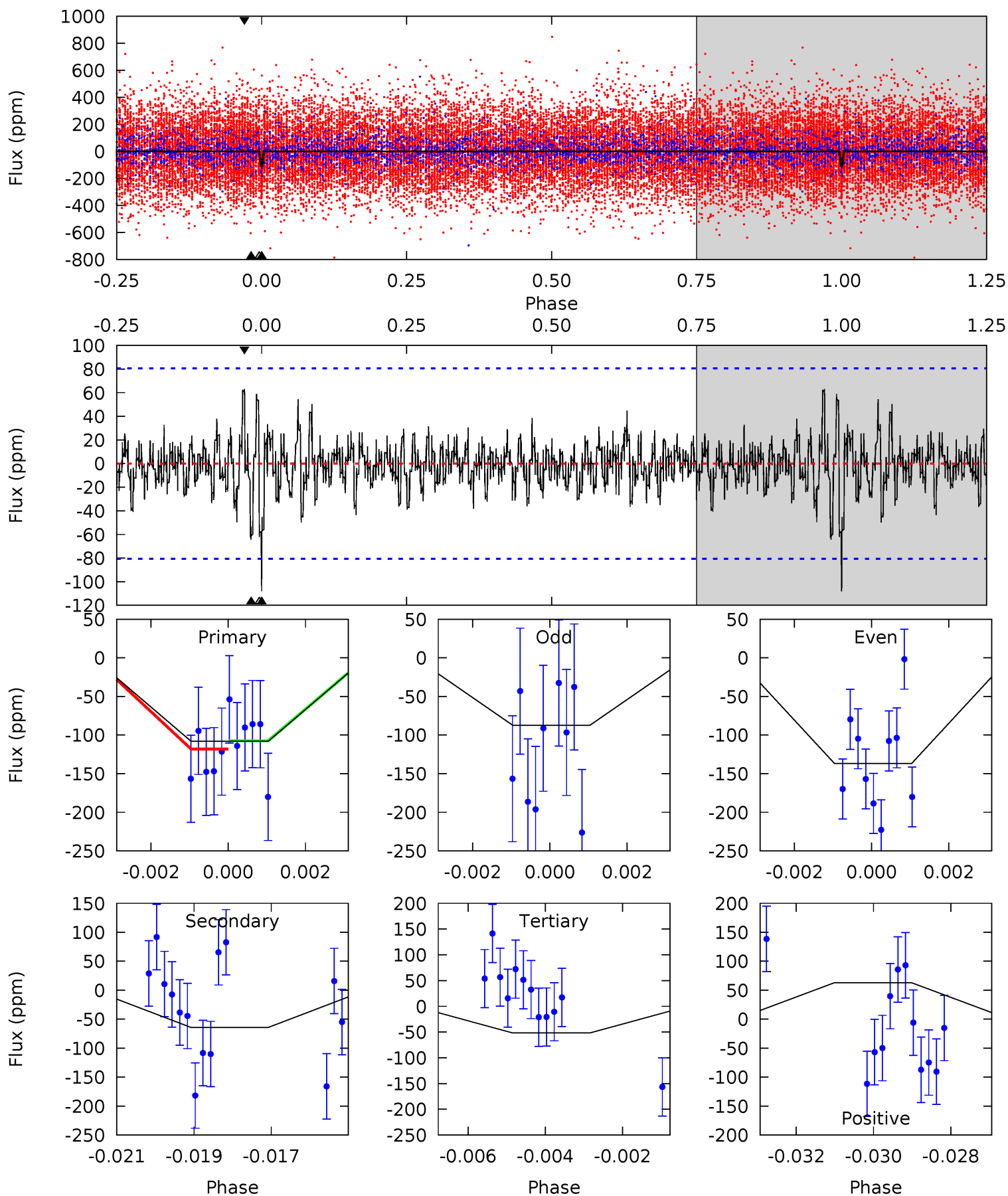
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.81	6.16	4.59	6.06	5.30	3.05	1.56	5.23	3.75	1.58	0.10	2.68	1.06	0.38	0.11



Alt Model-Shift Uniqueness Test

003955026-02, P = 472.212760 Days, E = 158.886009 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.12	4.24	3.41	4.15	5.32	3.07	0.98	3.71	2.97	0.82	0.09	1.63	1.02	0.37	0.35



Stellar Parameters For KIC 003955026

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6887^{+214}_{-285}	$4.055^{+0.246}_{-0.164}$	$-0.260^{+0.300}_{-0.300}$	$1.826^{+0.522}_{-0.522}$	$1.383^{+0.207}_{-0.253}$	$0.320^{+0.440}_{-0.151}$
	+3%/-4%	+6%/-4%	+115%/-115%	+29%/-29%	+15%/-18%	+137%/-47%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 003955026-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-103 ± 17	$2.98^{+0.77}_{-0.68}$	493^{+40}_{-42}	5573^{+651}_{-496}	10969^{+8165}_{-3984}
Alt.	-64 ± 15	$2.03^{+0.60}_{-0.62}$	493^{+38}_{-39}	5975^{+1086}_{-729}	14726^{+15275}_{-6521}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

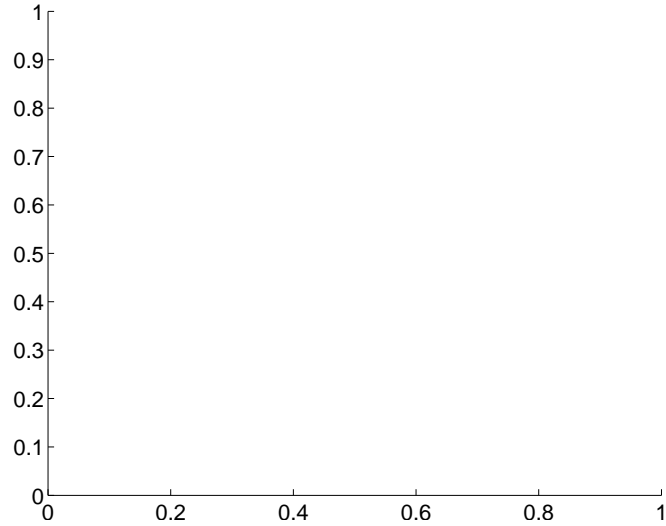
Supplemental centroid analysis for 003955026-02. Kepler magnitude: 13.58. Transit SNR 8.91

There are 0 quarters with good PRF difference image offsets

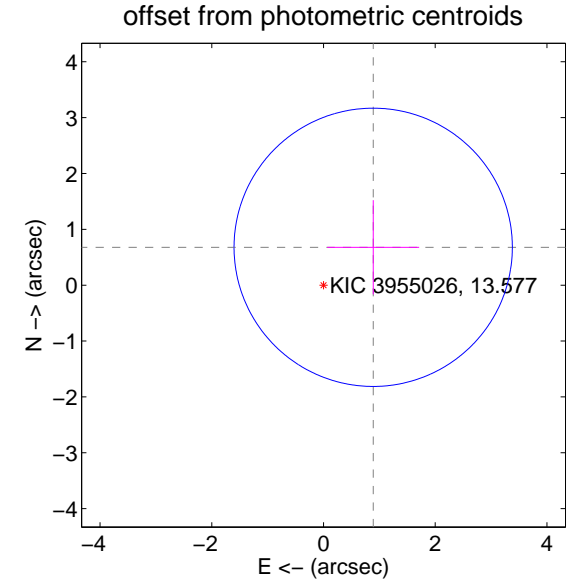
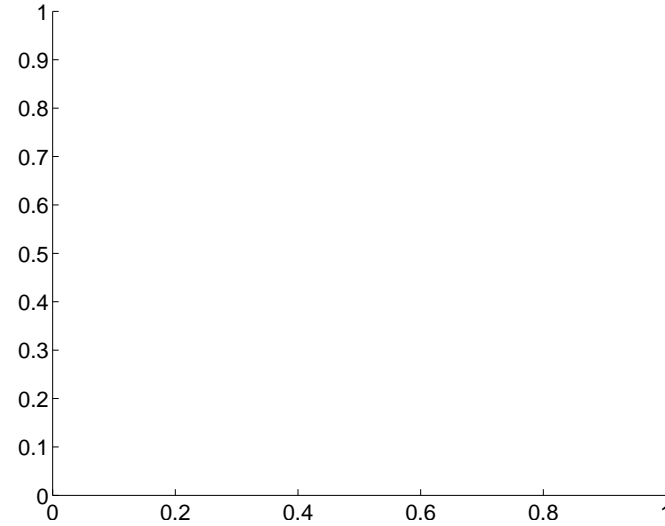
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	1.12 ± 0.83	1.35	-0.89 ± 0.82	0.68 ± 0.84

There is no PRF-fit offset from OOT-fit

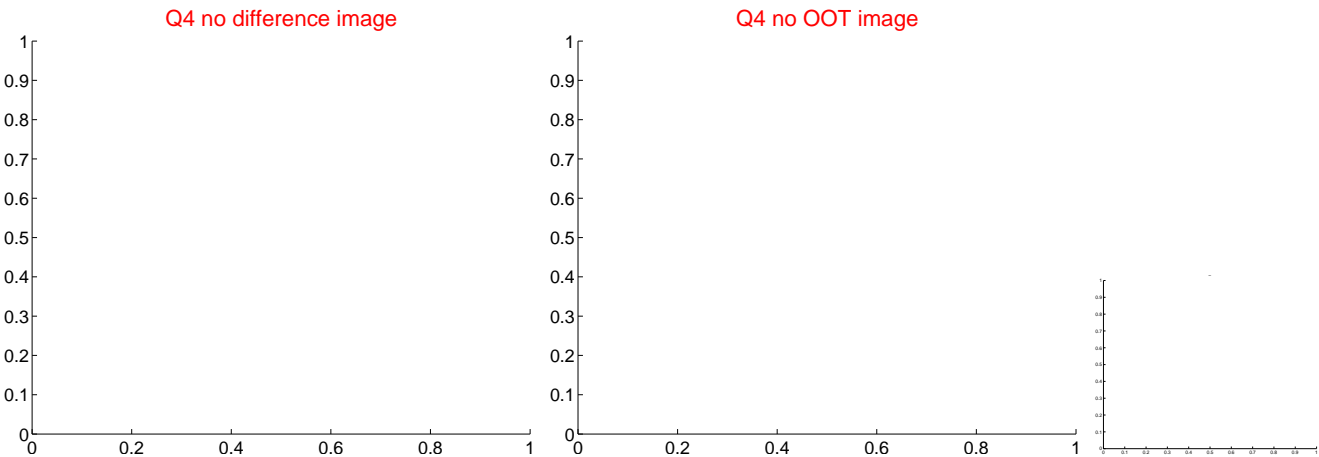
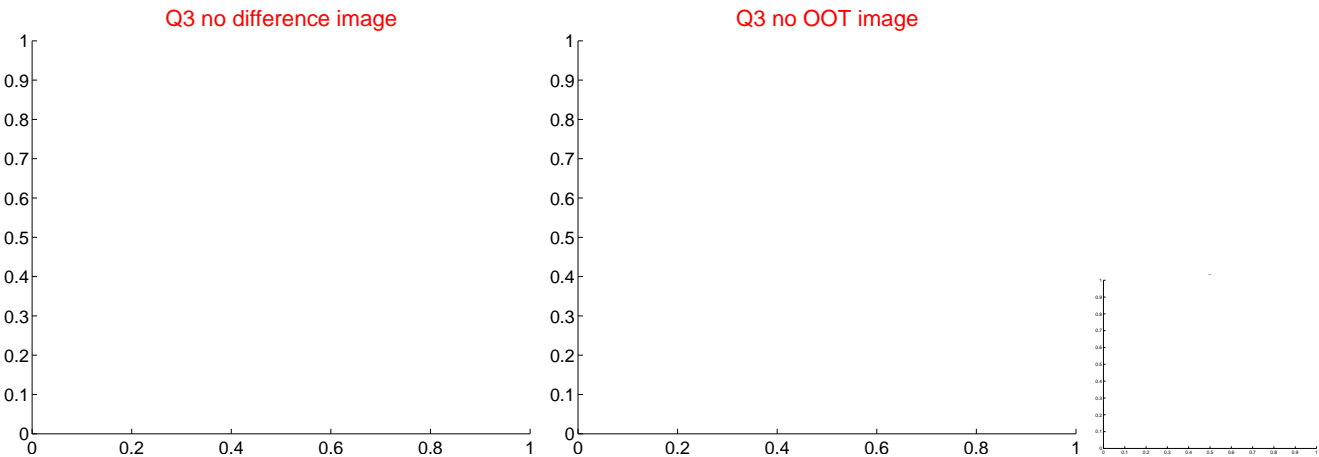
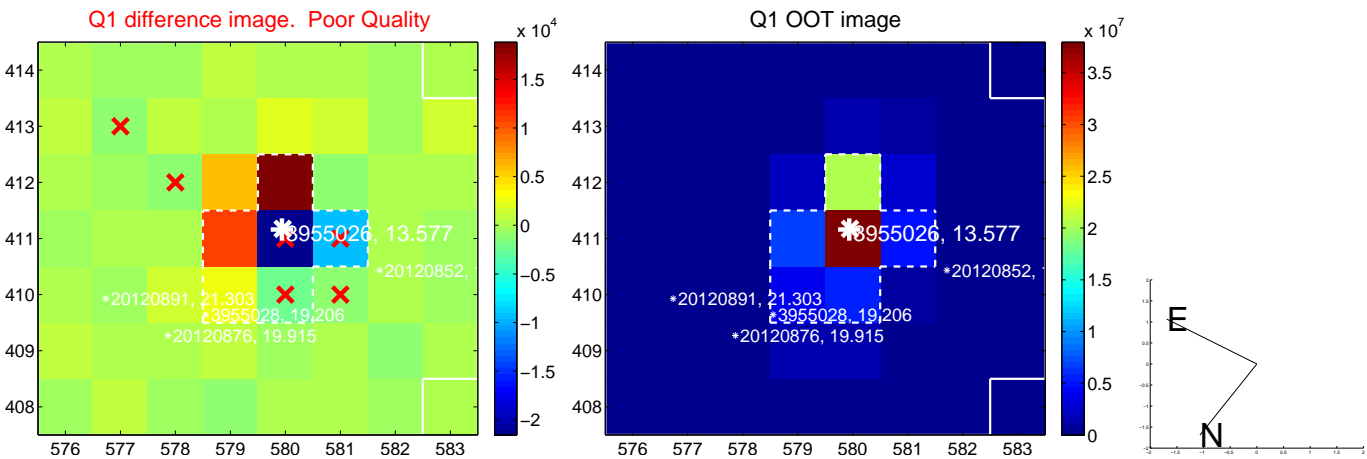


There is no PRF-fit offset from KIC



Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



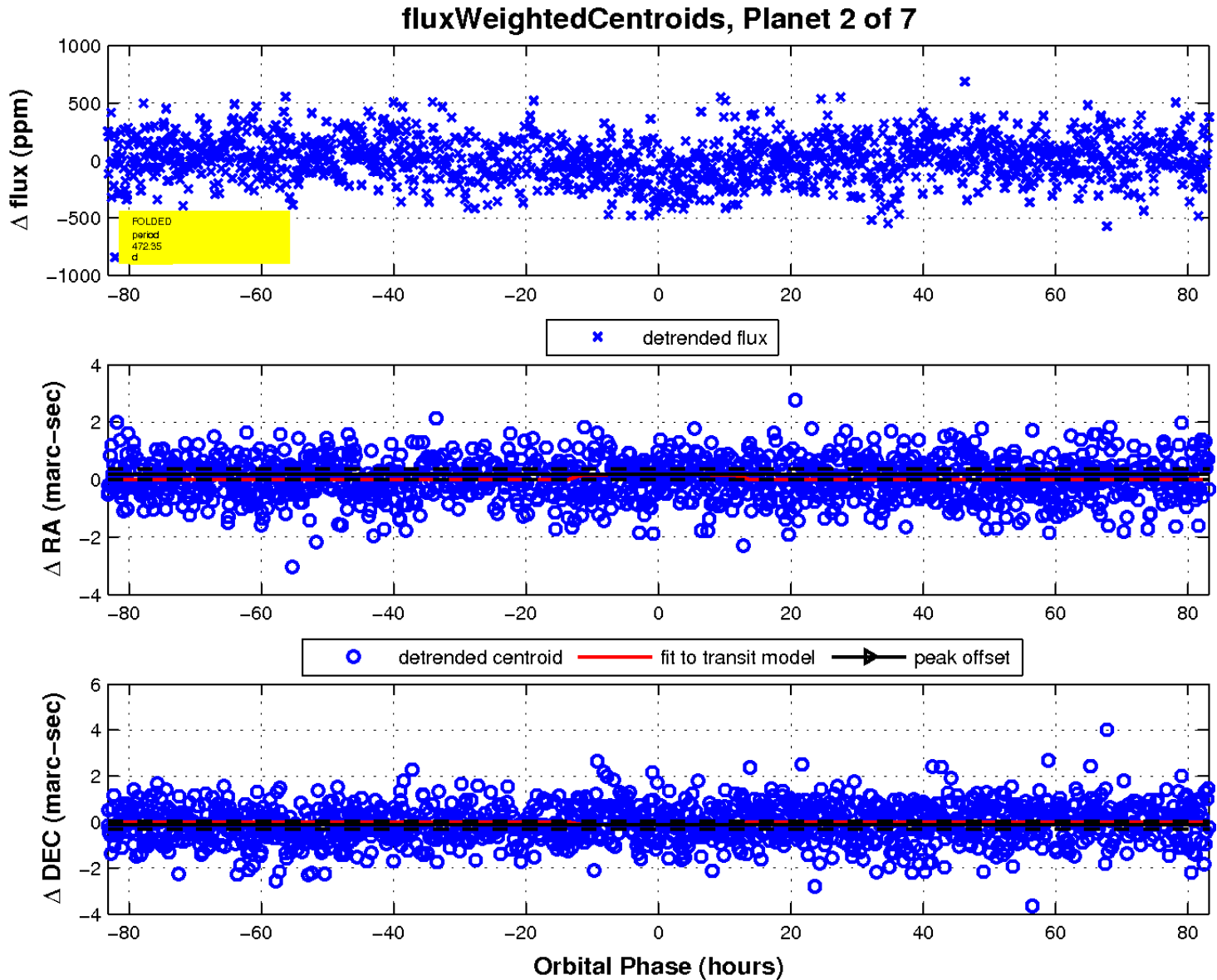
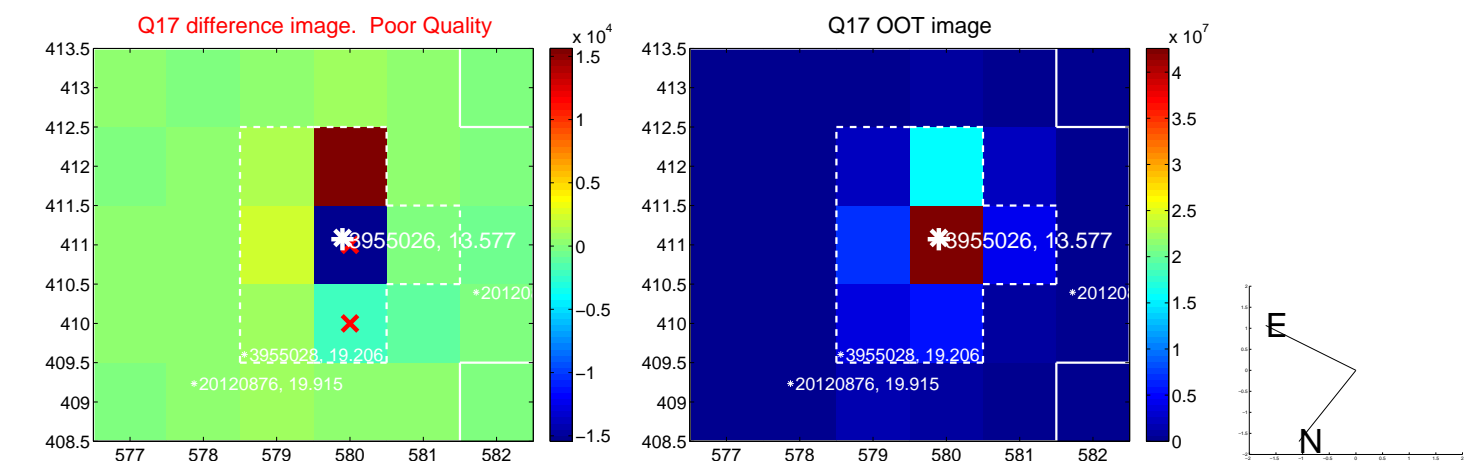
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

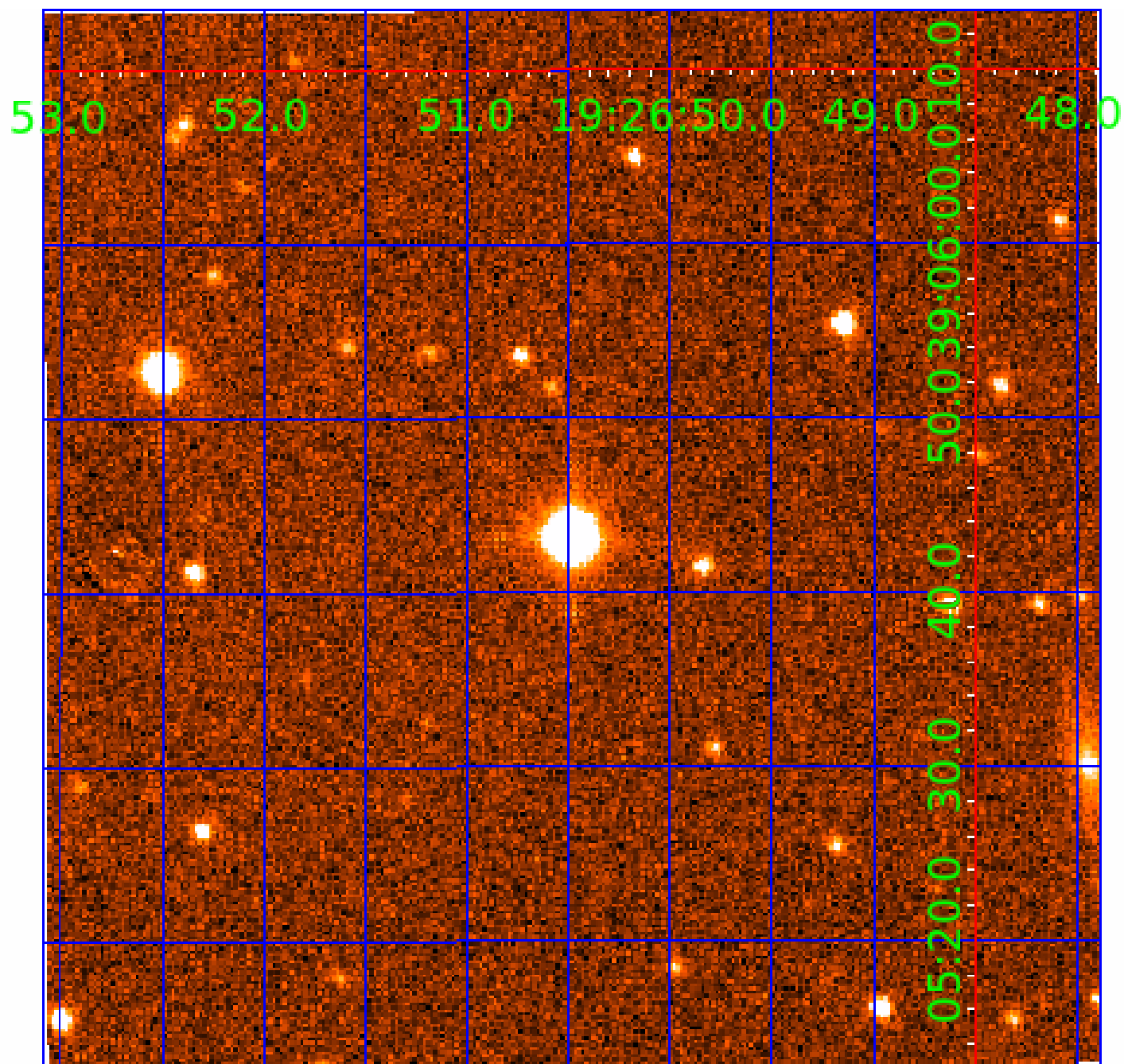


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 003955026

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
003955026-01	OBS	No	2.269846	132.925833	12.1	11.851	7.6	5.0	1.83	6887	0.64	4742.64
003955026-02	OBS	No	472.347430	158.501324	210.4	27.735	9.4	8.9	1.83	6887	3.06	3.85
003955026-03	OBS	No	137.480174	208.485675	400.2	2.120	7.8	8.5	1.83	6887	4.25	19.94
003955026-04	OBS	No	26.298968	145.354003	145.5	2.576	7.8	7.6	1.83	6887	2.48	180.90
003955026-05	OBS	No	210.044960	143.078264	335.9	3.609	7.5	8.0	1.83	6887	3.76	11.33
003955026-06	OBS	No	141.631780	173.900844	338.2	2.378	7.2	8.1	1.83	6887	3.92	19.16
003955026-07	OBS	No	96.535051	211.266209	302.1	2.559	7.4	7.9	1.83	6887	3.53	31.95

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003955026-01	OBS	FP	0.00	1	0	0	0	LPP_DV
003955026-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
003955026-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
003955026-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
003955026-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
003955026-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS—HALO_GHOST
003955026-07	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

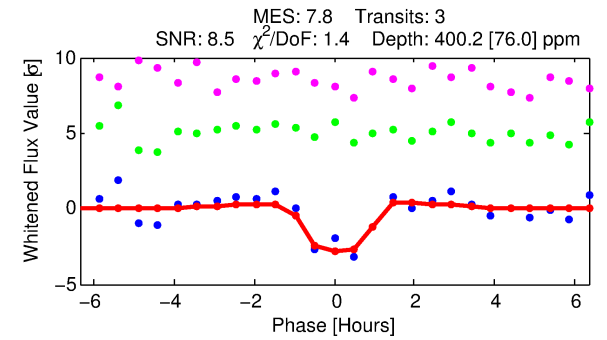
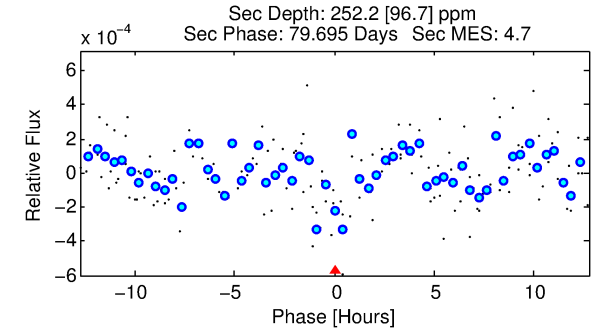
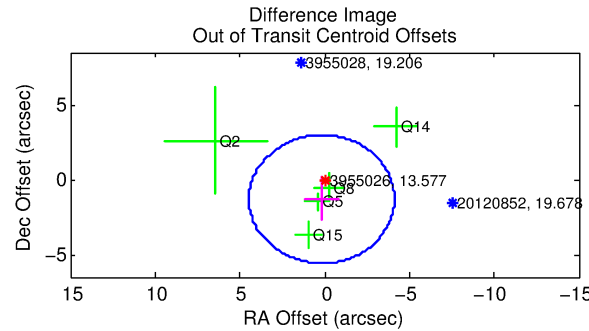
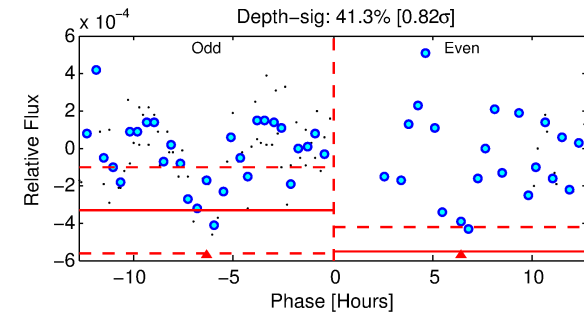
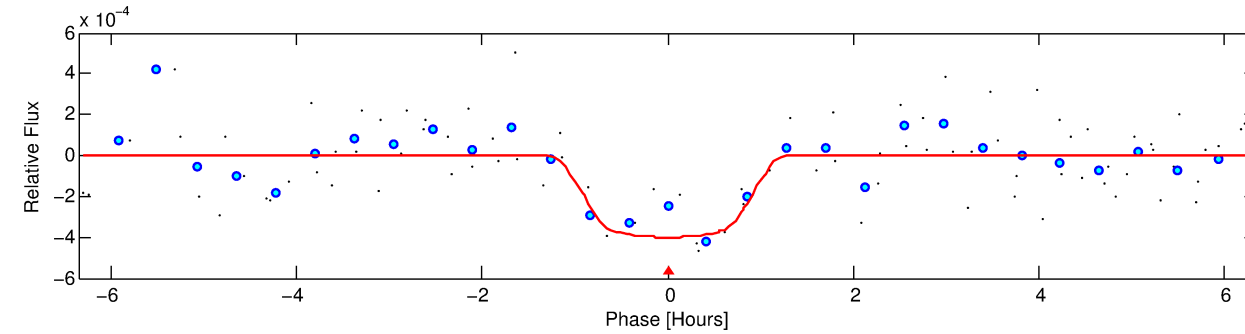
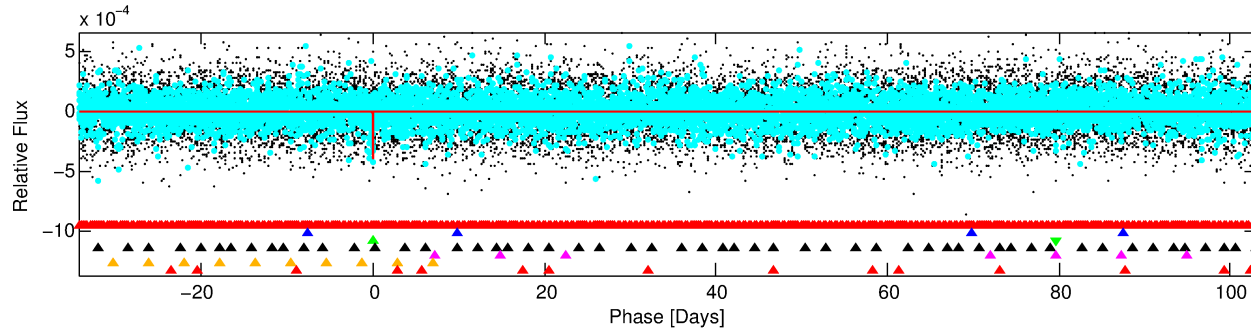
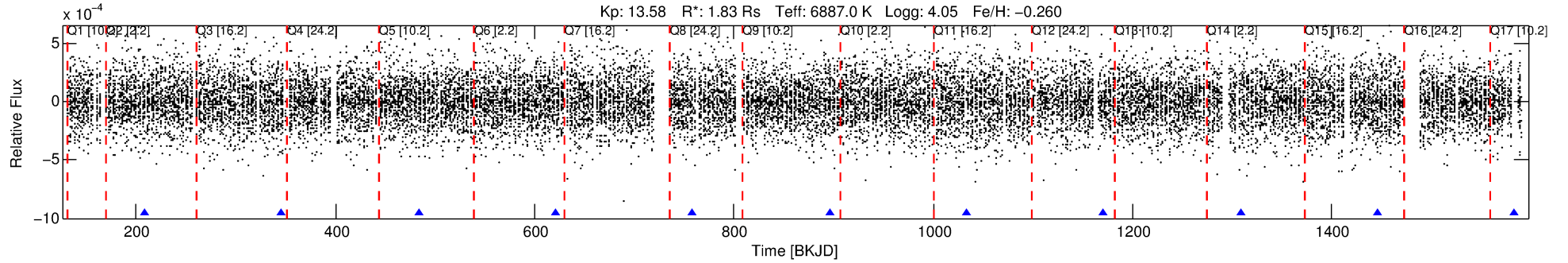
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003955026-03

No Significant Match Found

DV One-Page Summary

KIC: 3955026 Candidate: 3 of 7 Period: 137.480 d



DV Fit Results:

Period = 137.48017 [0.00137] d
Epoch = 208.4857 [0.0079] BKJD
Rp/R* = 0.0213 [0.0137]
a/R* = 239.22 [873.19]
b = 0.90 [0.79]
Seff = 19.94 [9.06]
Teq = 539 [61] K
Rp = 4.25 [2.99] Re
a = 0.5806 [0.1558] AU
Ag = 2584.55 [3633.62] [0.71σ]
Teffp = 5940 [2006] K [2.69σ]

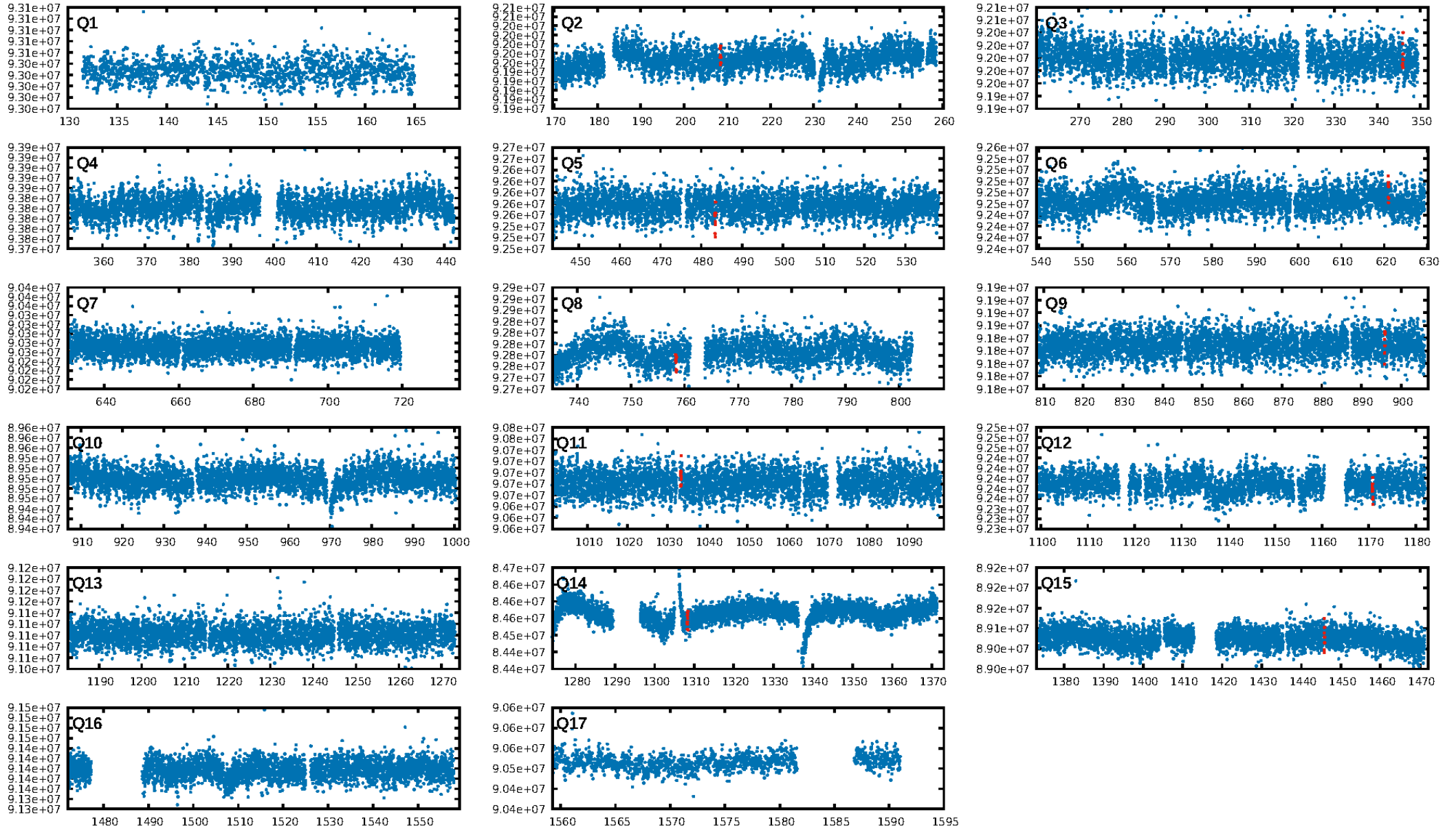
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [295.69σ]
LongPeriod-sig: 100.0% [31.27σ]
ModelChiSquare2-sig: 4.8%
ModelChiSquareGof-sig: 67.3%
Bootstrap-pfa: 1.32e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.134
Centroid-sig: 34.9%
Centroid-so: 1.033 arcsec [1.07σ]
OotOffset-rm: 1.318 arcsec [0.92σ]
KicOffset-rm: 1.277 arcsec [0.88σ]
OotOffset-st: 2/1/1/1 [5]
KicOffset-st: 2/1/1/1 [5]
DiffImageQuality-fgm: 0.40 [2/5]
DiffImageOverlap-fno: 0.44 [4/9]

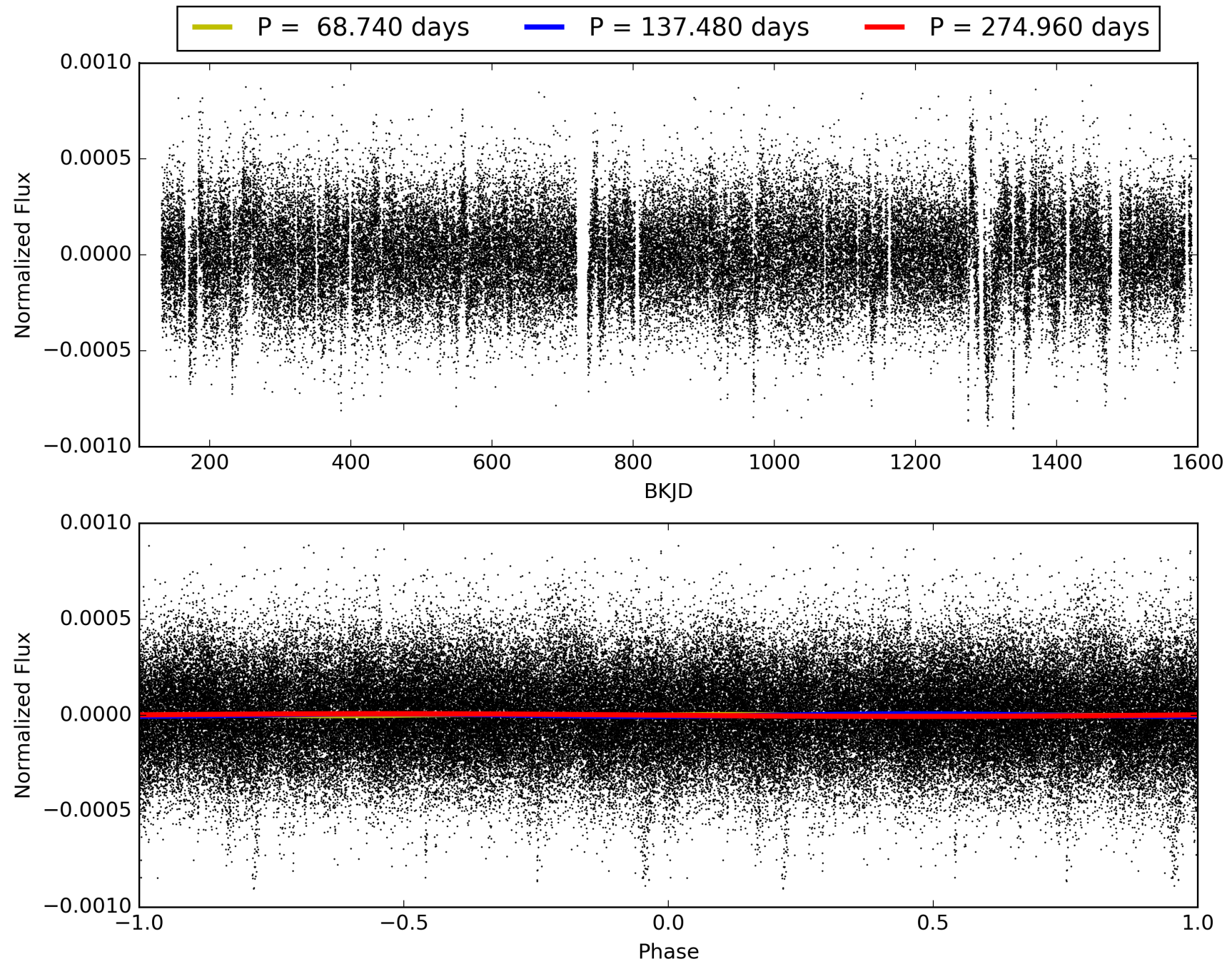
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 11:24:54 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 003955026-03, PDC Light Curves

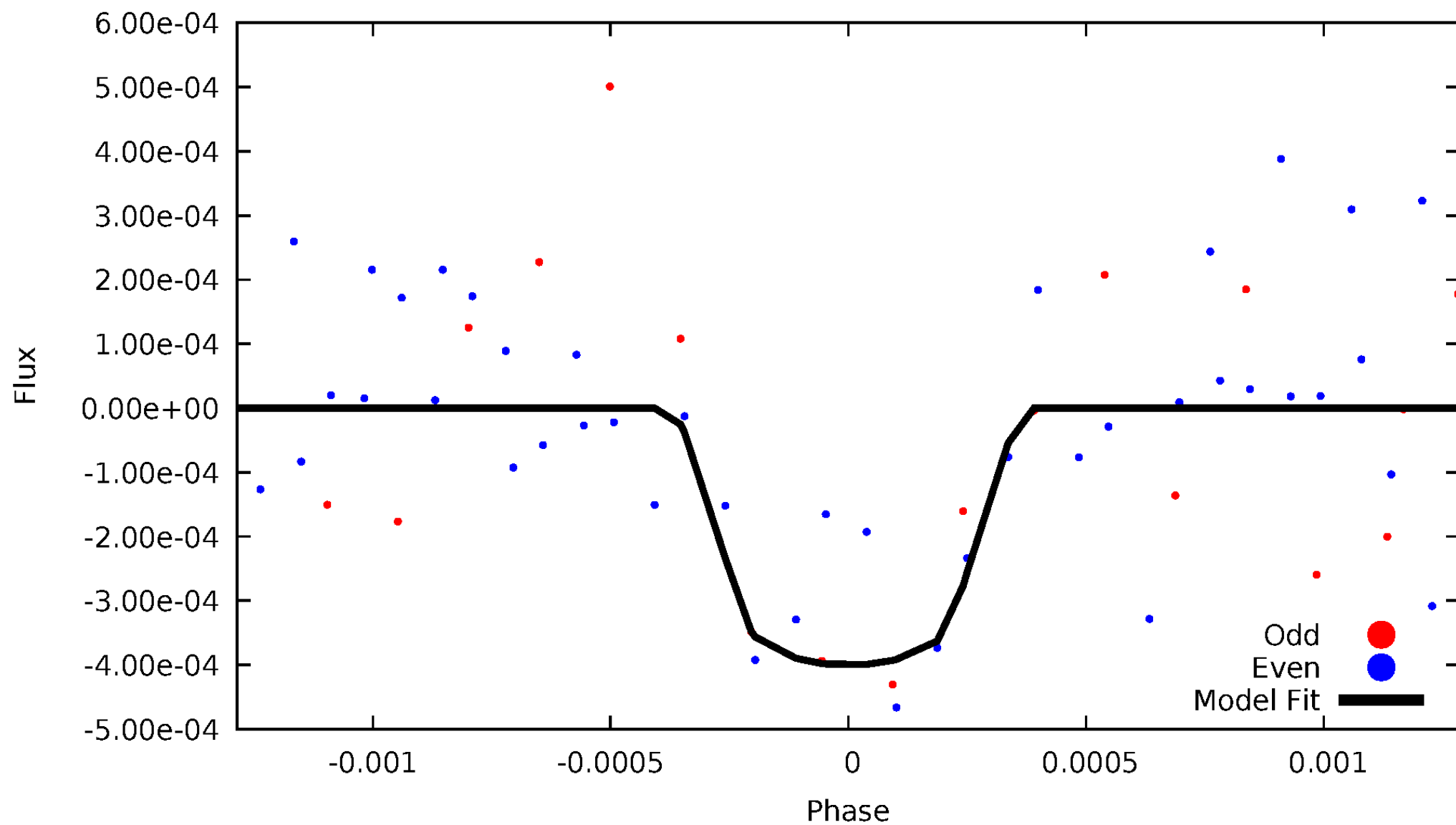


TCE 003955026-03



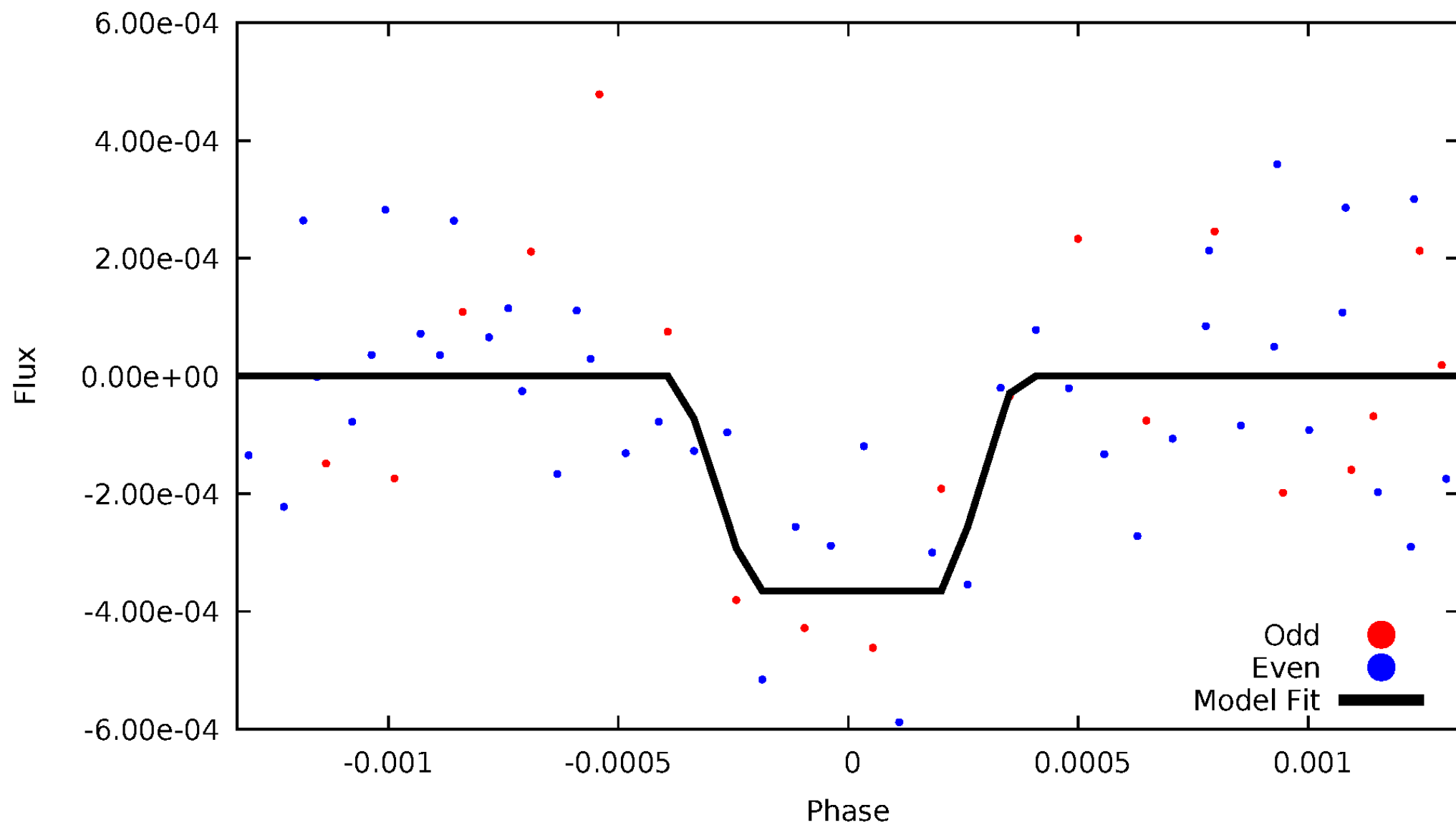
DV Odd/Even

TCE 003955026-03



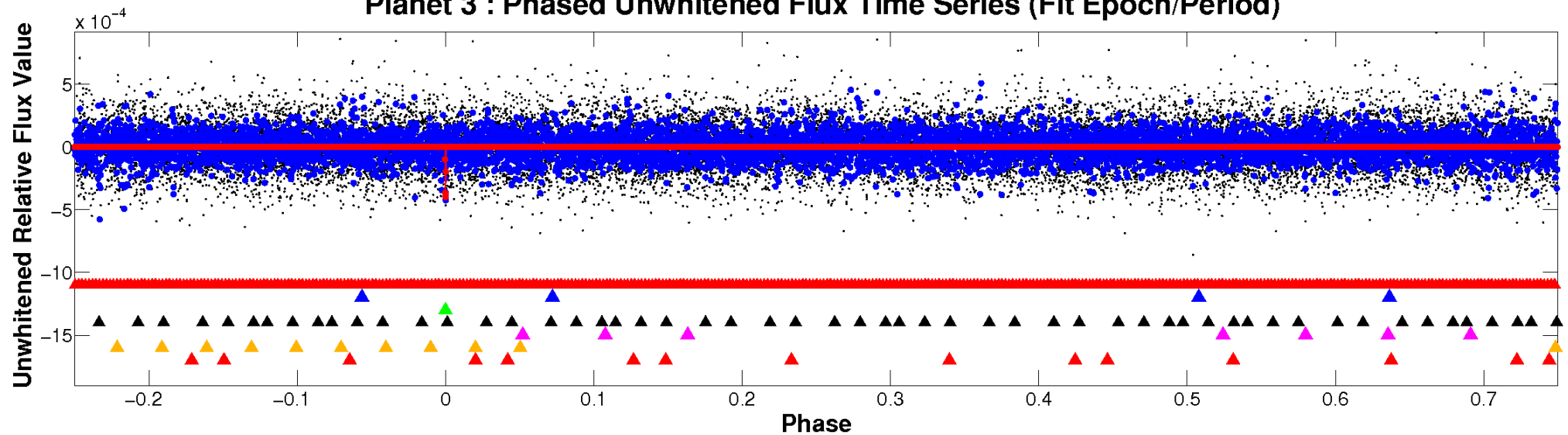
ALT Odd/Even

TCE 003955026-03

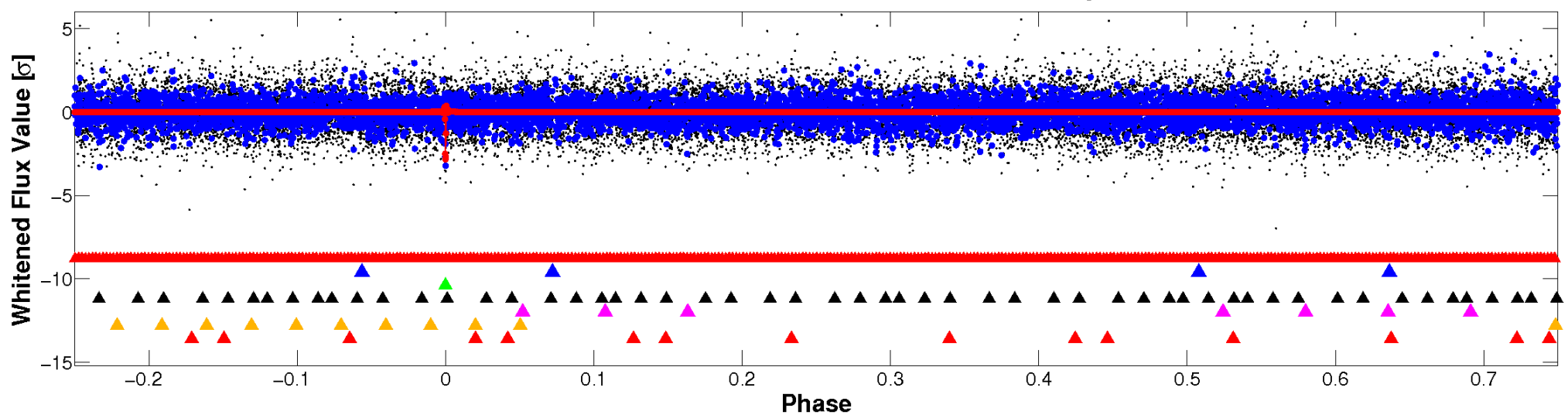


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

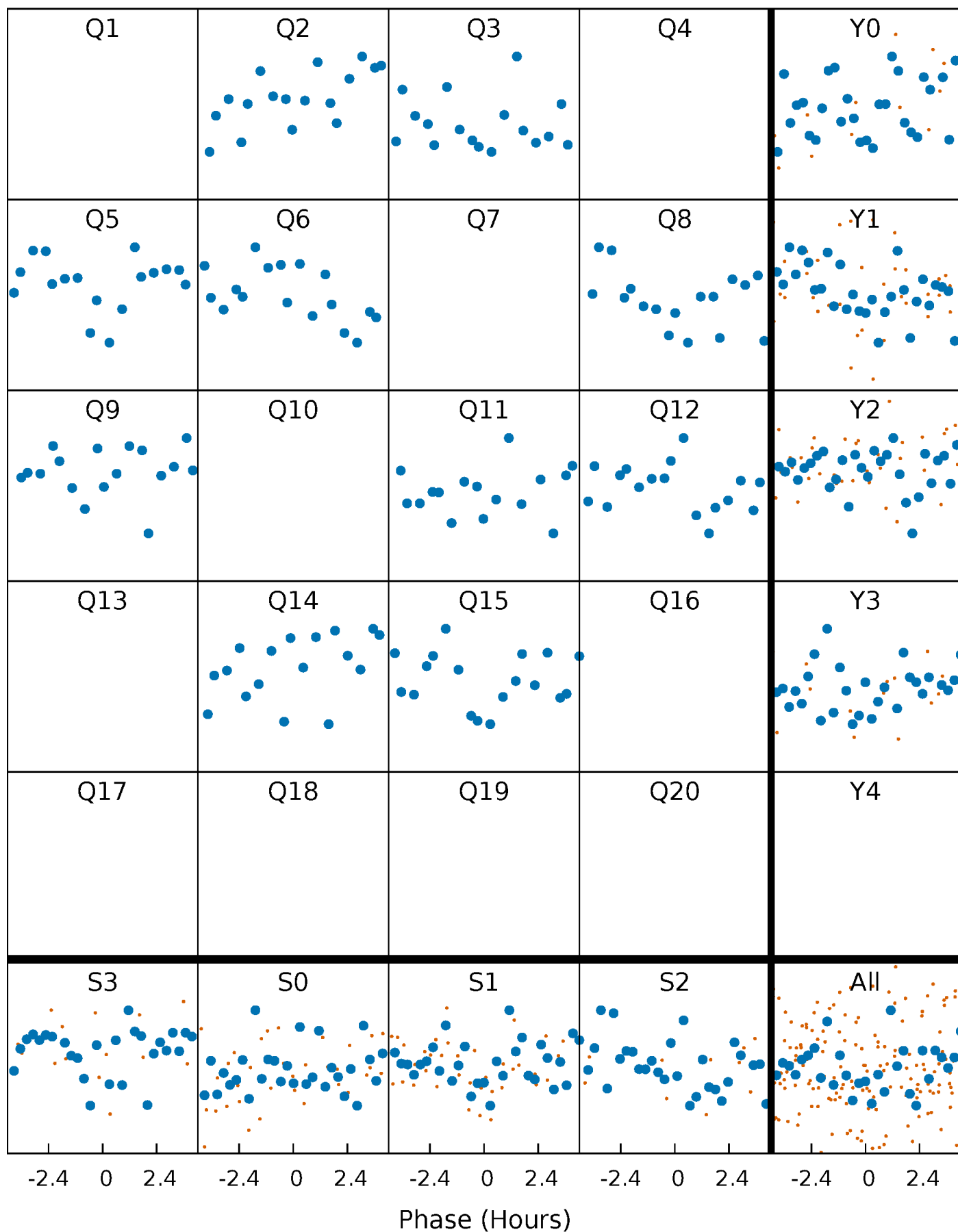


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



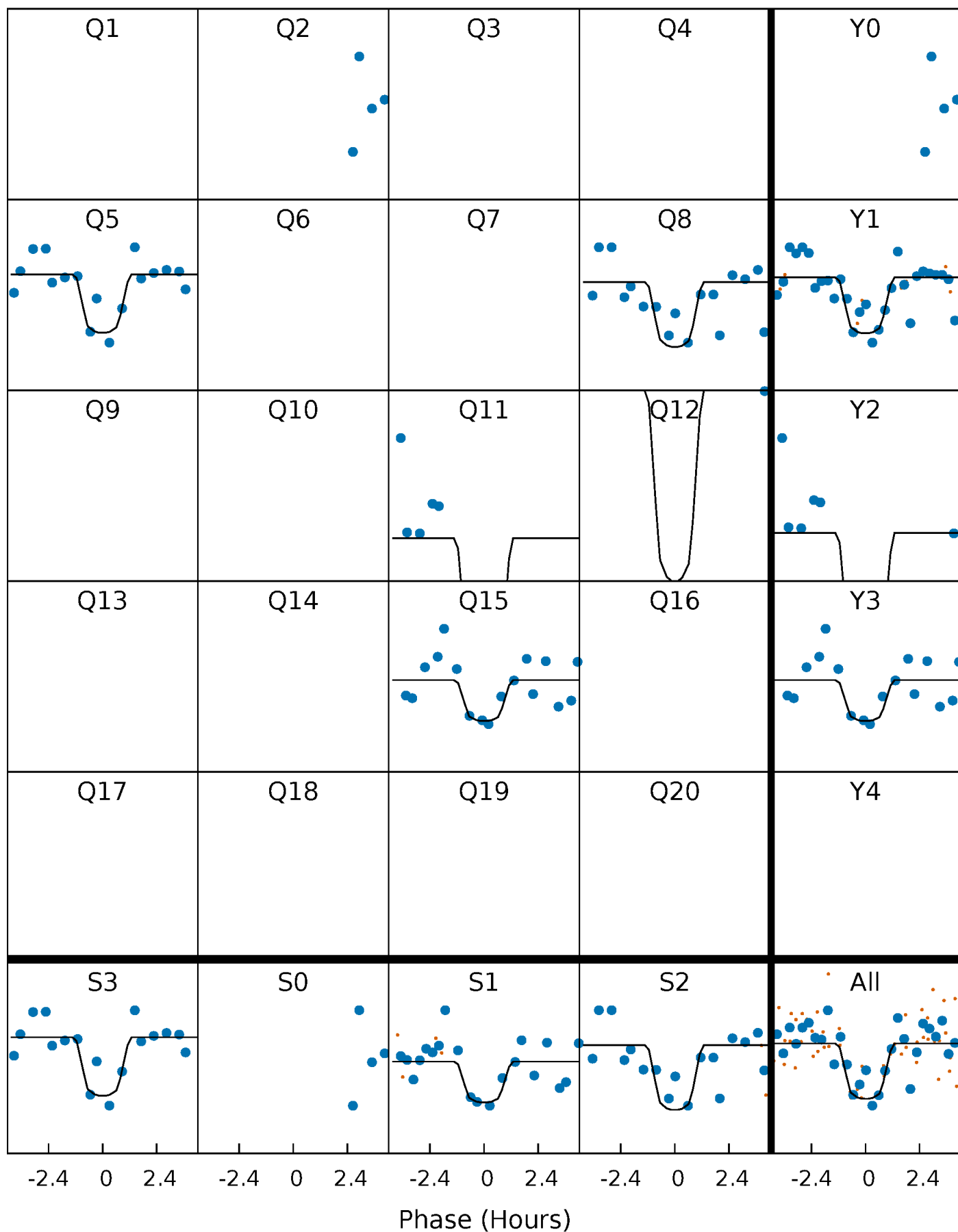
PDC Quarter-Phased Transit Curves

TCE 003955026-03 P=137.480174 Days $T_0=208.485675$ (BKJD)



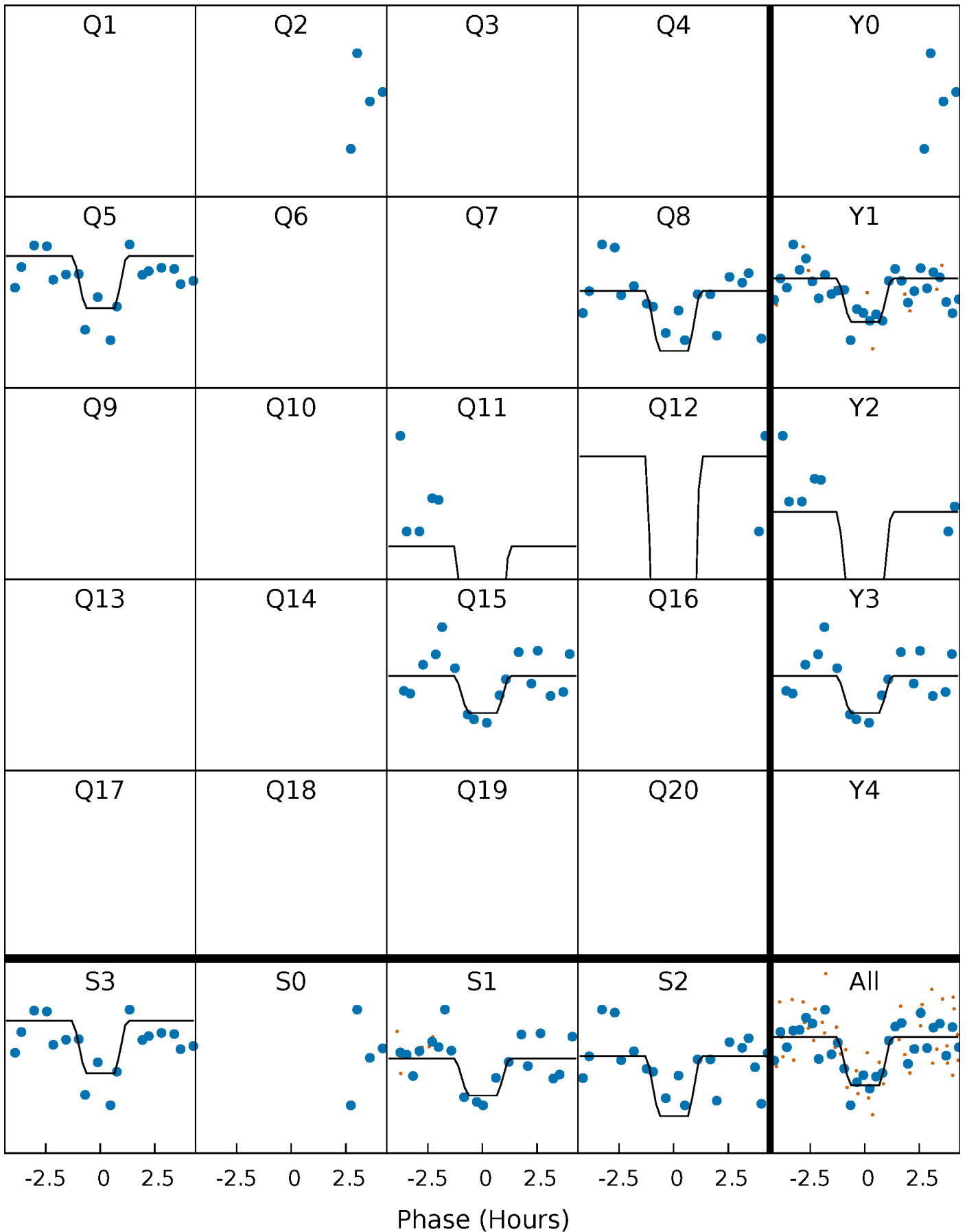
DV Quarter-Phased Transit Curves

TCE 003955026-03 $P=137.480174$ Days $T_0=208.485675$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

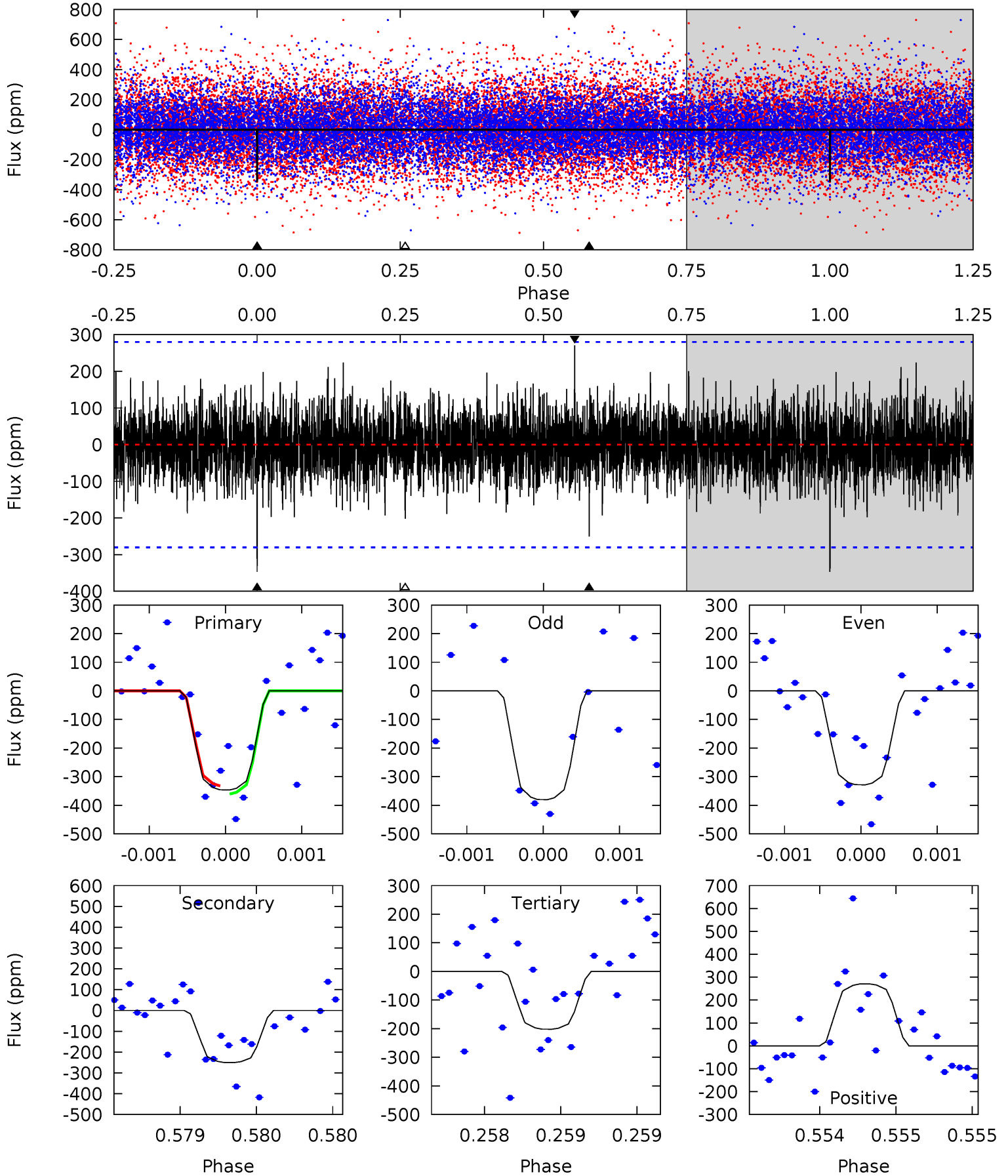
TCE 003955026-03 P=137.481134 Days $T_0=208.482487$ (BKJD)



DV Model-Shift Uniqueness Test

003955026-03, P = 137.480174 Days, E = 71.005501 Days

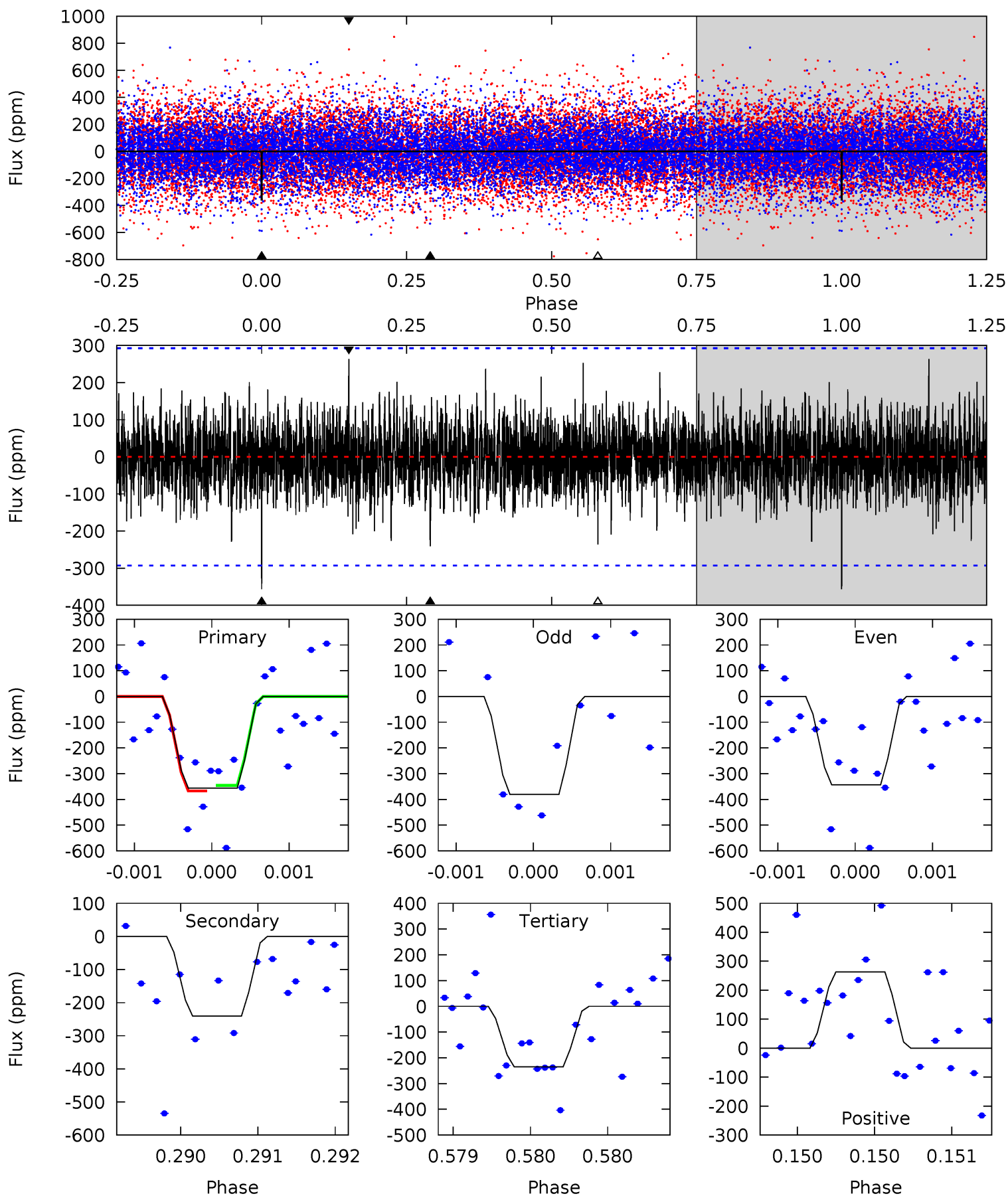
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.83	4.94	3.98	5.33	5.52	3.40	1.17	2.85	1.50	0.96	-0.39	0.49	0.98	0.44	0.28



Alt Model-Shift Uniqueness Test

003955026-03, P = 137.481134 Days, E = 71.001353 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.73	4.55	4.45	4.99	5.54	3.43	1.17	2.28	1.75	0.09	-0.44	0.34	0.93	0.43	0.20



Stellar Parameters For KIC 003955026

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6887^{+214}_{-285}	$4.055^{+0.246}_{-0.164}$	$-0.260^{+0.300}_{-0.300}$	$1.826^{+0.522}_{-0.522}$	$1.383^{+0.207}_{-0.253}$	$0.320^{+0.440}_{-0.151}$
	+3%/-4%	+6%/-4%	+115%/-115%	+29%/-29%	+15%/-18%	+137%/-47%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 003955026-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-251 ± 51	$4.20^{+2.75}_{-2.04}$	740^{+59}_{-58}	5816^{+2865}_{-1145}	2662^{+7951}_{-1738}
Alt.	-240 ± 53	$3.94^{+2.61}_{-2.17}$	742^{+61}_{-63}	5989^{+3327}_{-1249}	2884^{+10645}_{-1854}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

DV Centroid Data

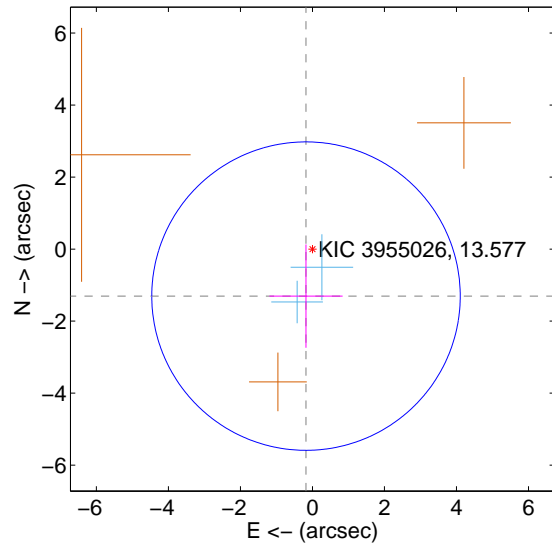
Supplemental centroid analysis for 003955026-03. Kepler magnitude: 13.58. Transit SNR 8.48

There are 2 quarters with good PRF difference image offsets

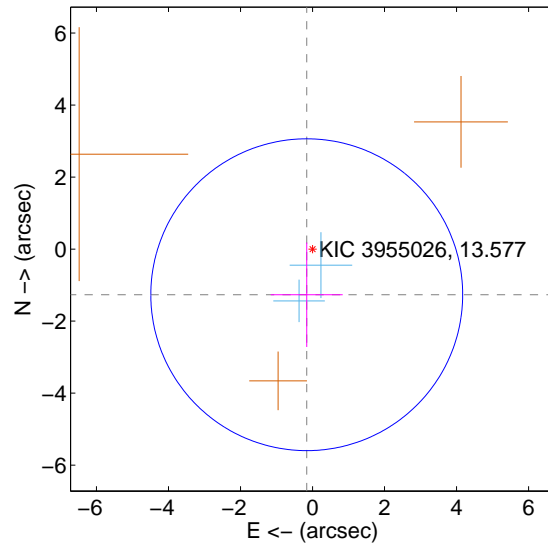
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.318 ± 1.428	0.92	0.179 ± 1.016	-1.306 ± 1.434
PRF-fit source offset from KIC position	1.277 ± 1.444	0.88	0.161 ± 0.998	-1.267 ± 1.450
photometric centroid source offset	1.03 ± 0.96	1.07	1.03 ± 0.96	0.05 ± 0.99

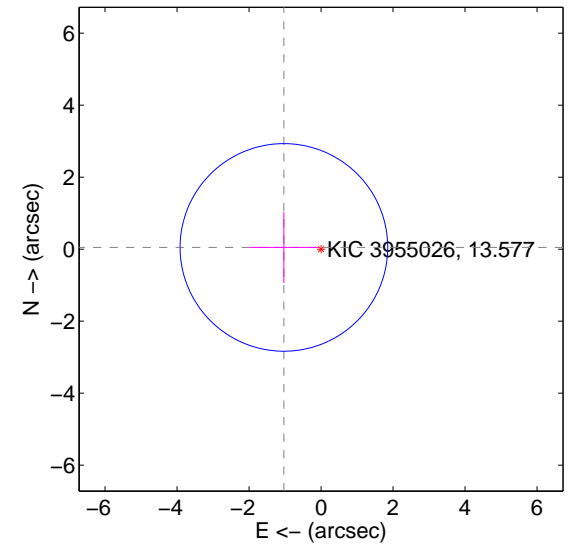
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids



Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

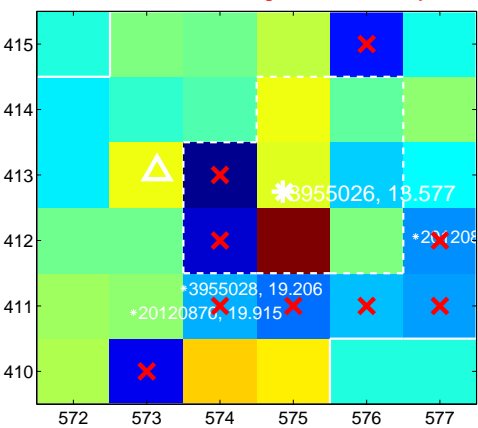
Q1 no difference image



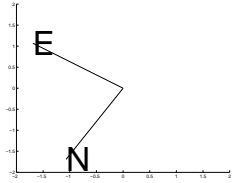
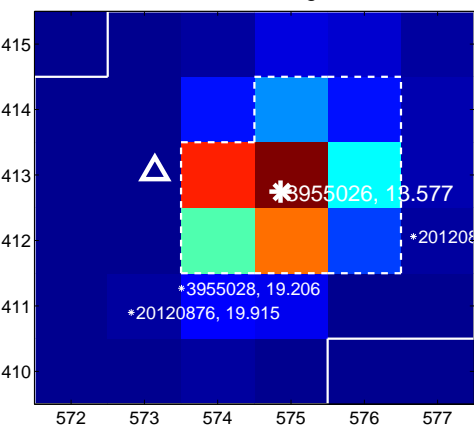
Q1 no OOT image



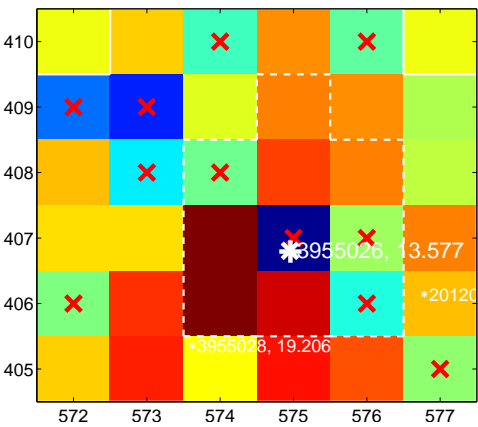
Q2 difference image. Poor Quality



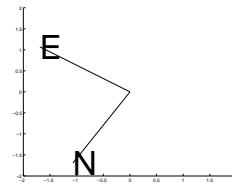
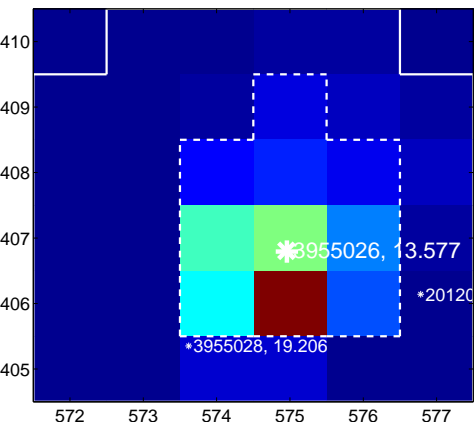
Q2 OOT image



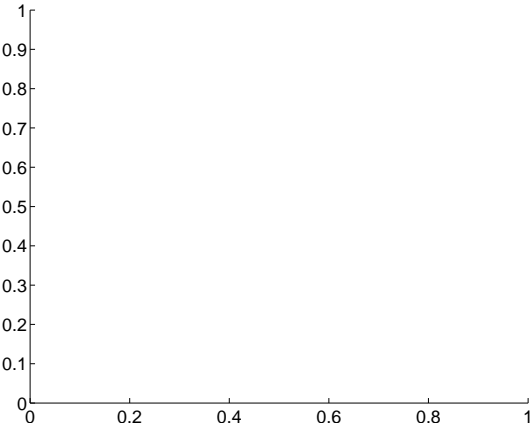
Q3 difference image. Poor Quality



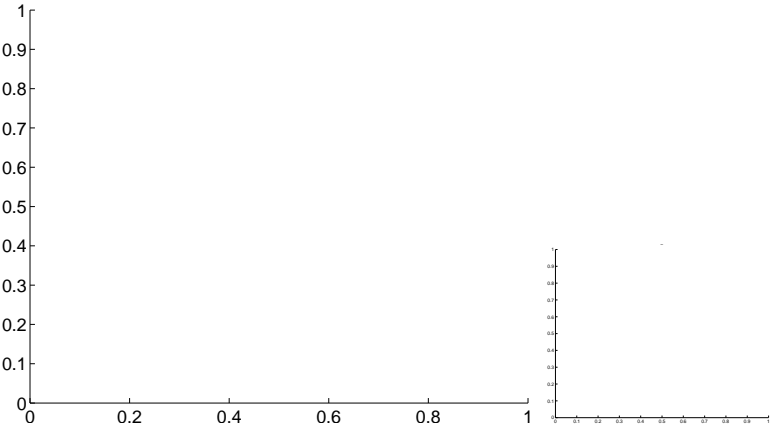
Q3 OOT image



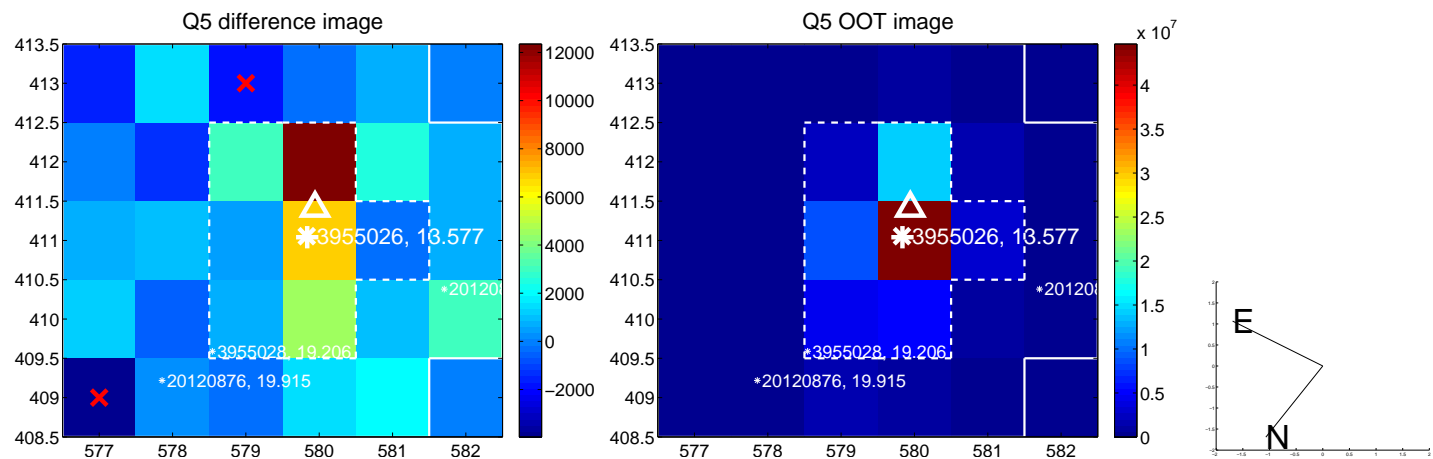
Q4 no difference image



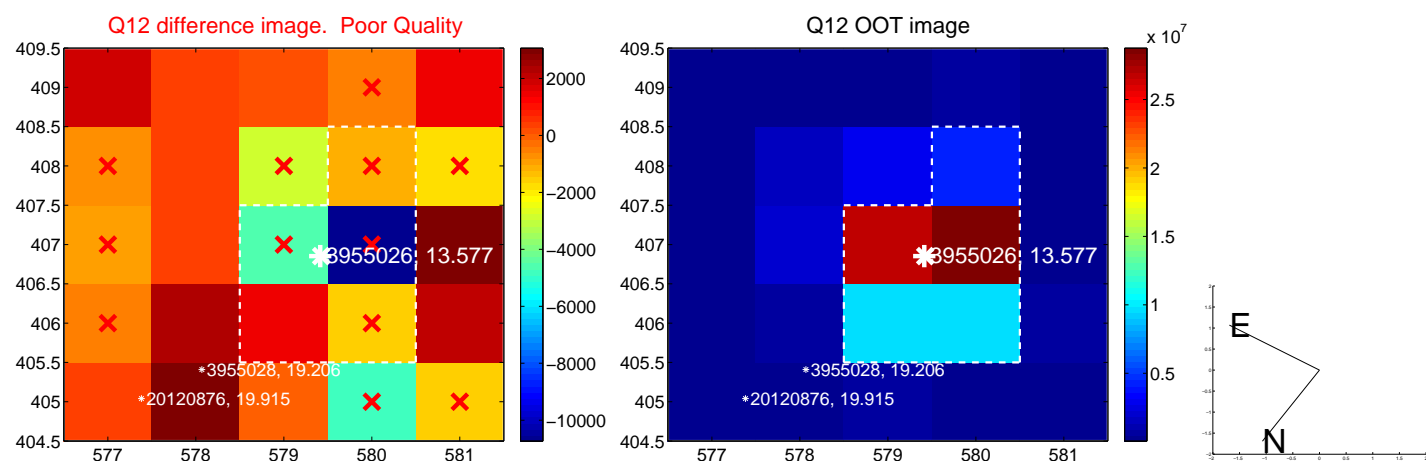
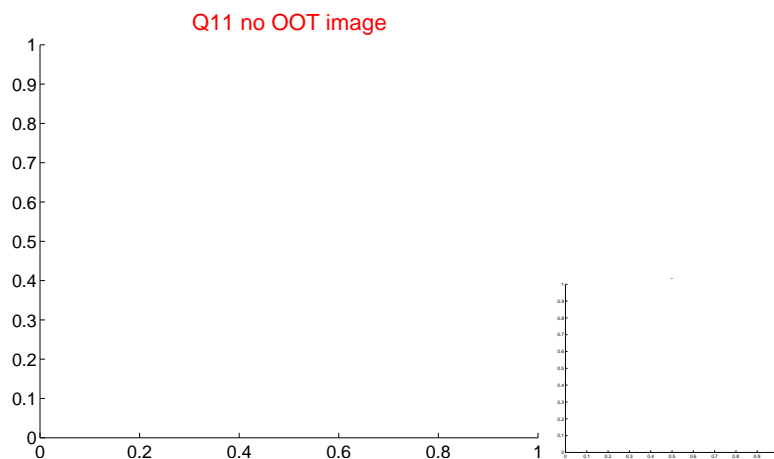
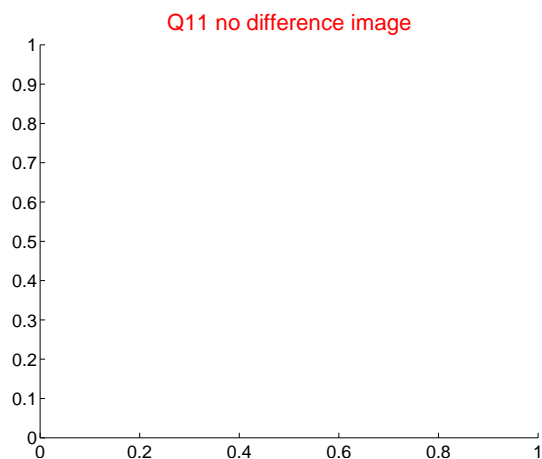
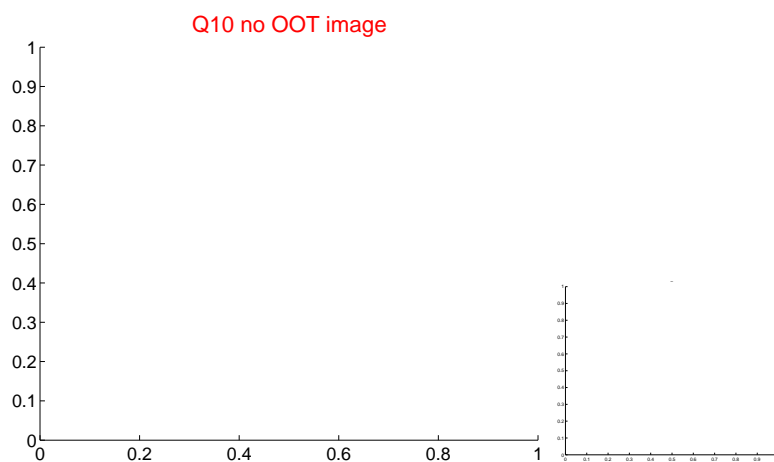
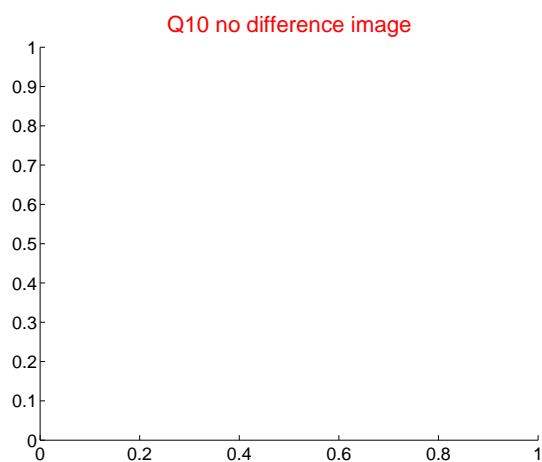
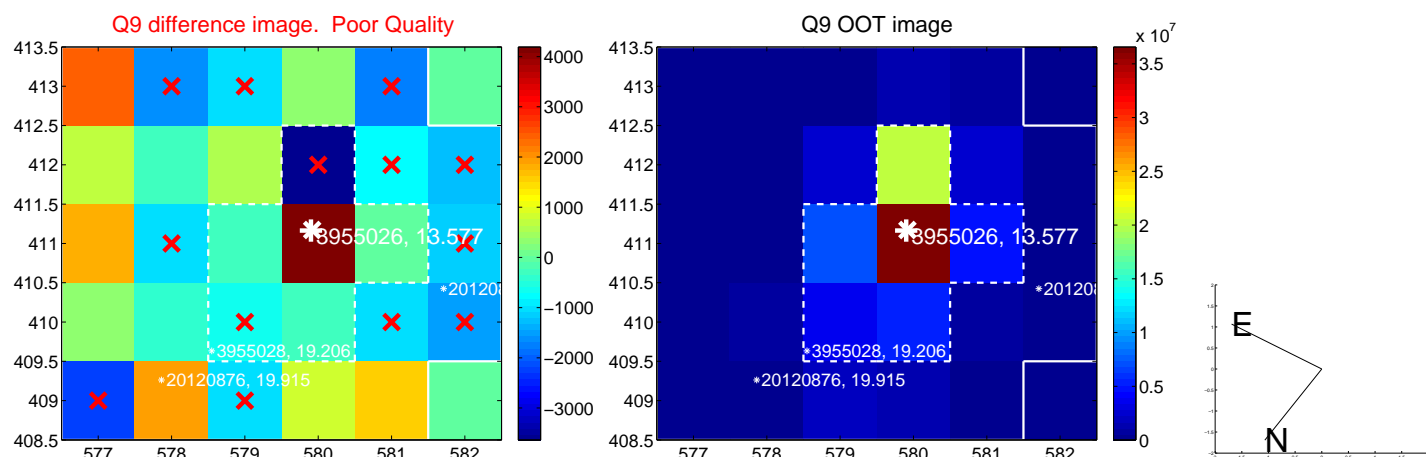
Q4 no OOT image



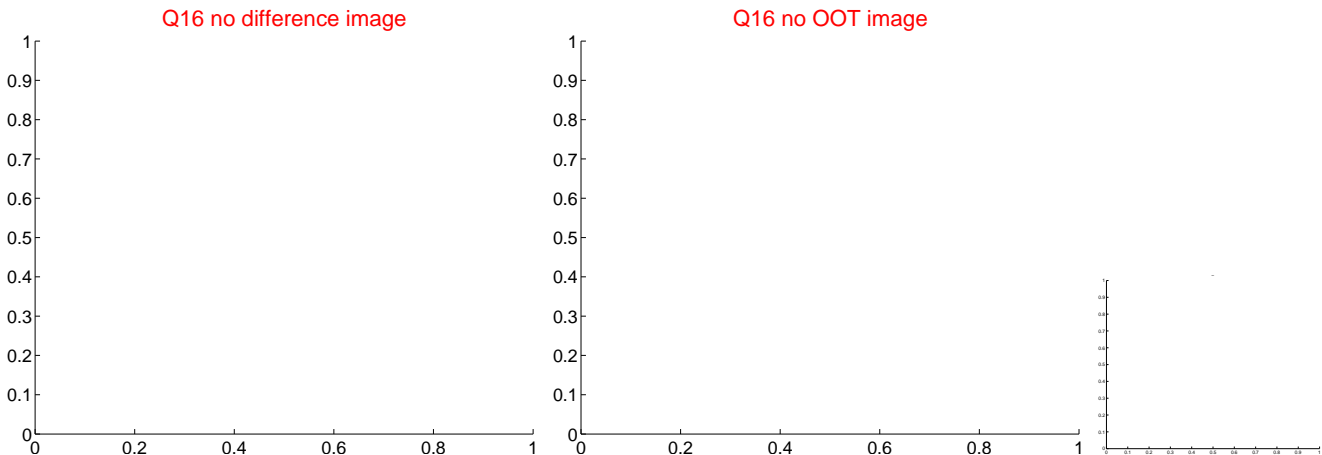
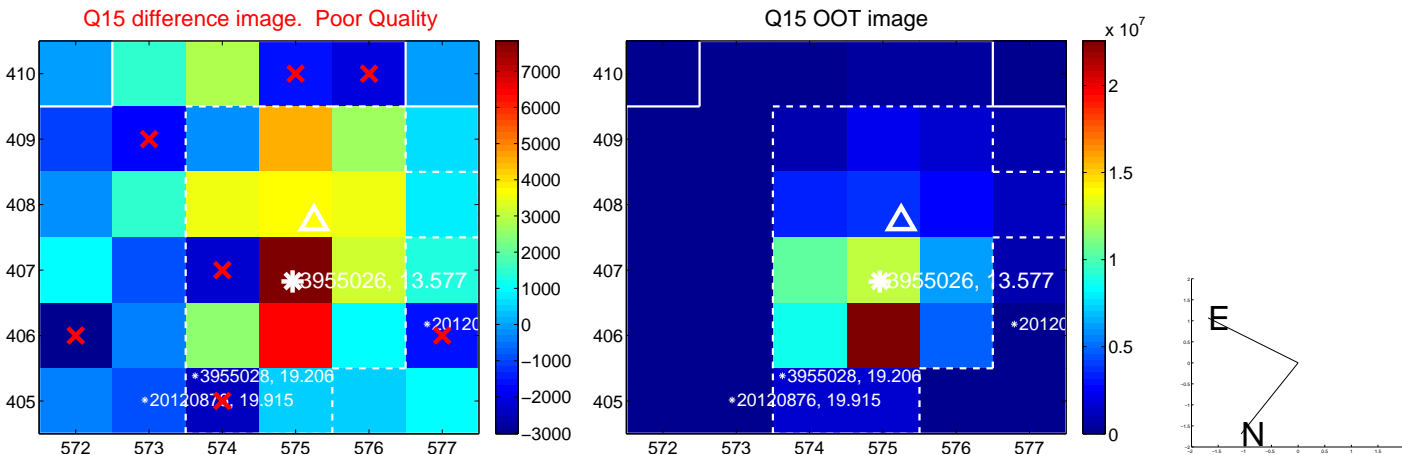
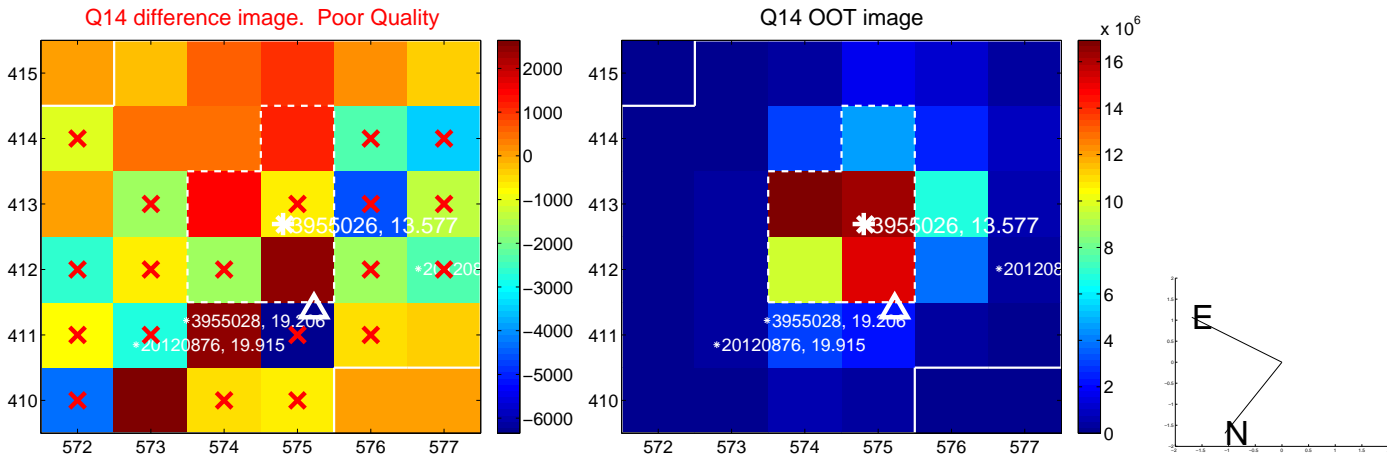
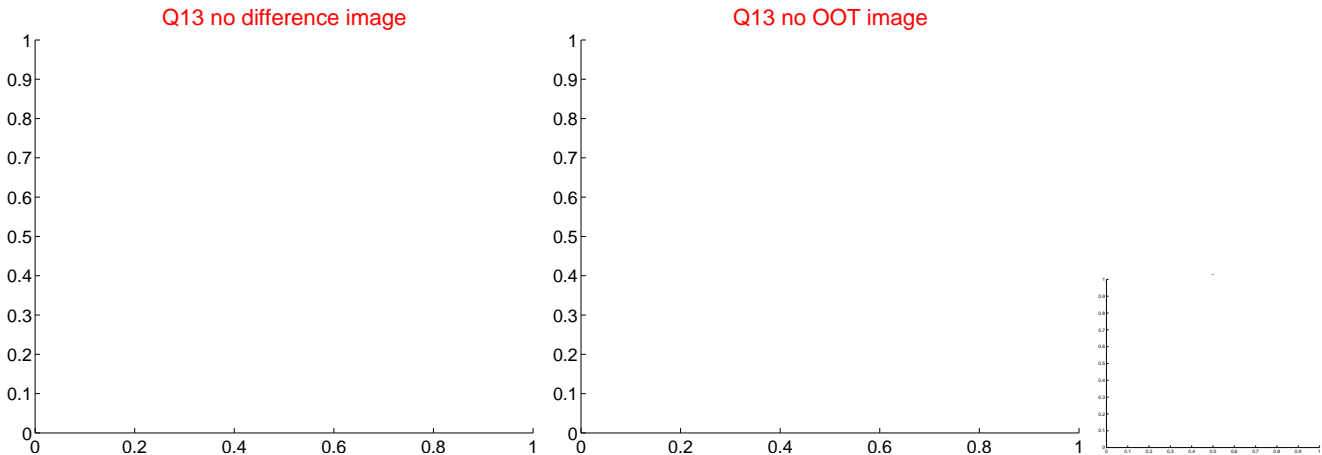
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



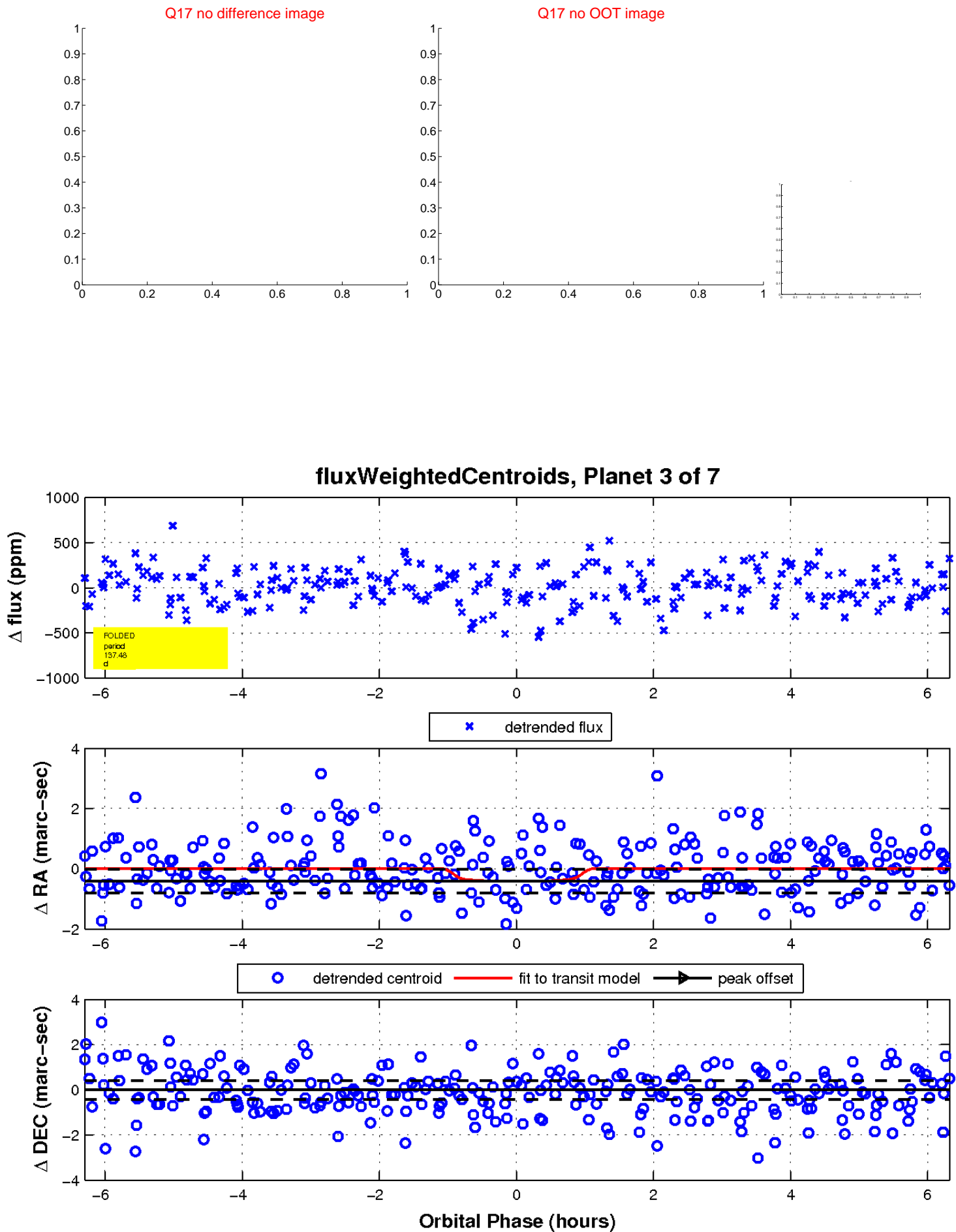
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value

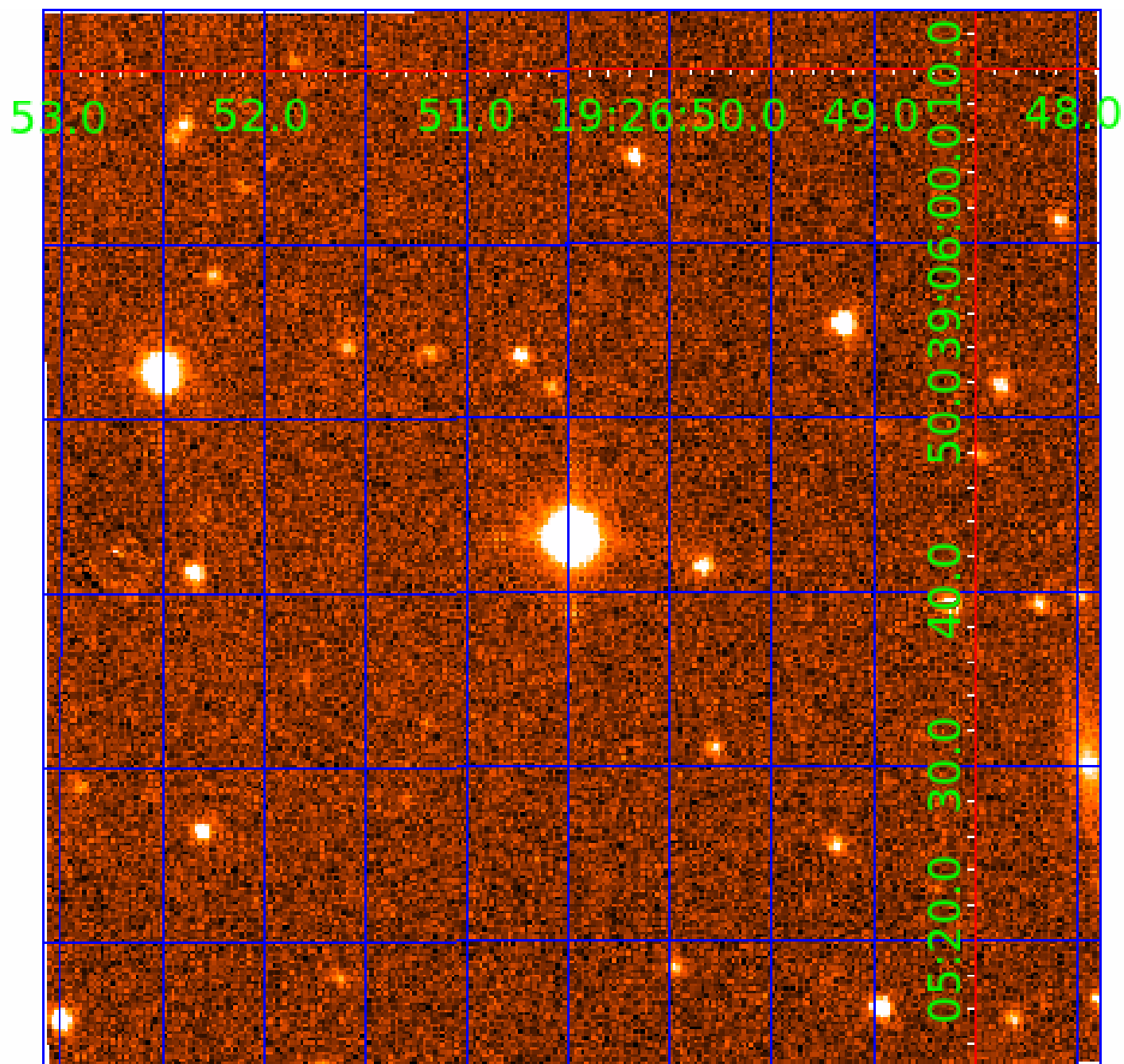


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 003955026

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
003955026-01	OBS	No	2.269846	132.925833	12.1	11.851	7.6	5.0	1.83	6887	0.64	4742.64
003955026-02	OBS	No	472.347430	158.501324	210.4	27.735	9.4	8.9	1.83	6887	3.06	3.85
003955026-03	OBS	No	137.480174	208.485675	400.2	2.120	7.8	8.5	1.83	6887	4.25	19.94
003955026-04	OBS	No	26.298968	145.354003	145.5	2.576	7.8	7.6	1.83	6887	2.48	180.90
003955026-05	OBS	No	210.044960	143.078264	335.9	3.609	7.5	8.0	1.83	6887	3.76	11.33
003955026-06	OBS	No	141.631780	173.900844	338.2	2.378	7.2	8.1	1.83	6887	3.92	19.16
003955026-07	OBS	No	96.535051	211.266209	302.1	2.559	7.4	7.9	1.83	6887	3.53	31.95

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003955026-01	OBS	FP	0.00	1	0	0	0	LPP_DV
003955026-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
003955026-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
003955026-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
003955026-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
003955026-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS—HALO_GHOST
003955026-07	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

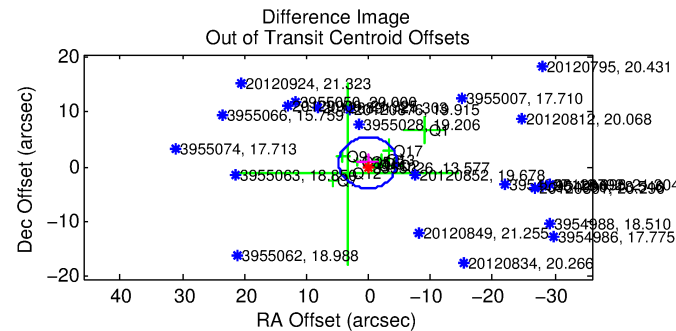
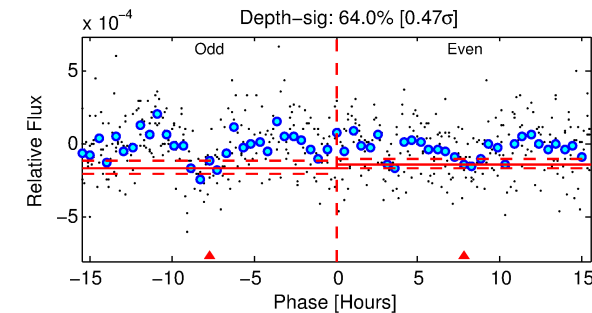
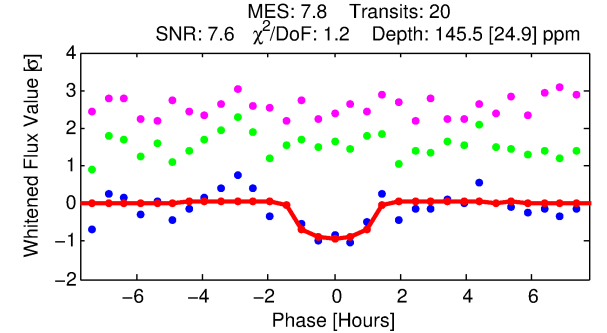
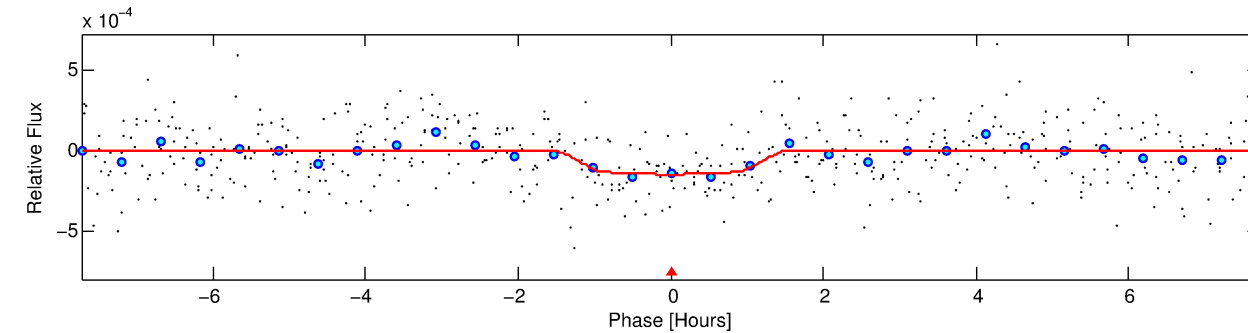
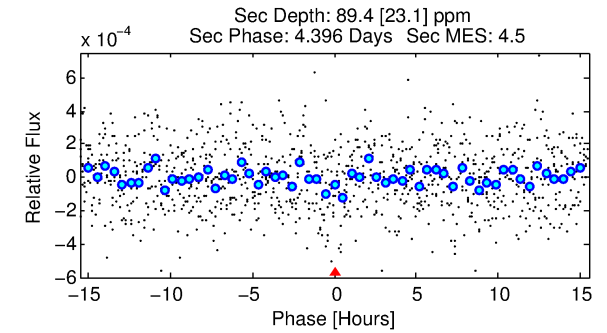
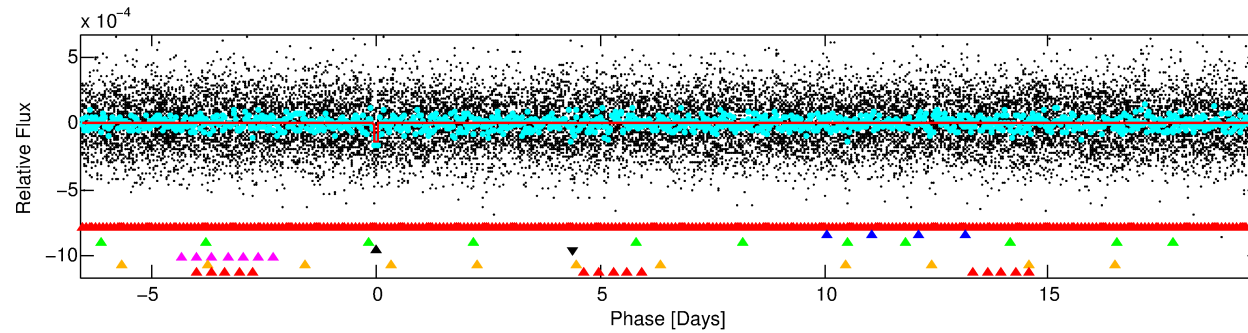
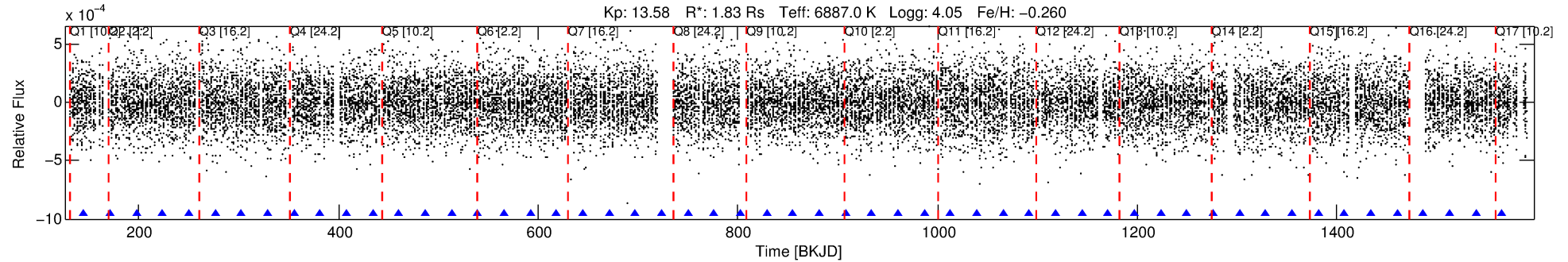
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003955026-04

No Significant Match Found

DV One-Page Summary

KIC: 3955026 Candidate: 4 of 7 Period: 26.299 d



DV Fit Results:

Period = 26.29897 [0.00031] d
Epoch = 145.3540 [0.0095] BKJD
Rp/R* = 0.0124 [0.0108]
a/R* = 43.82 [225.36]
b = 0.84 [1.79]
Seff = 180.90 [82.17]
Teq = 935 [106] K
Rp = 2.48 [2.26] Re
a = 0.1927 [0.0517] AU
Ag = 298.17 [538.34] [0.55σ]
Teffp = 6008 [2648] K [1.91σ]

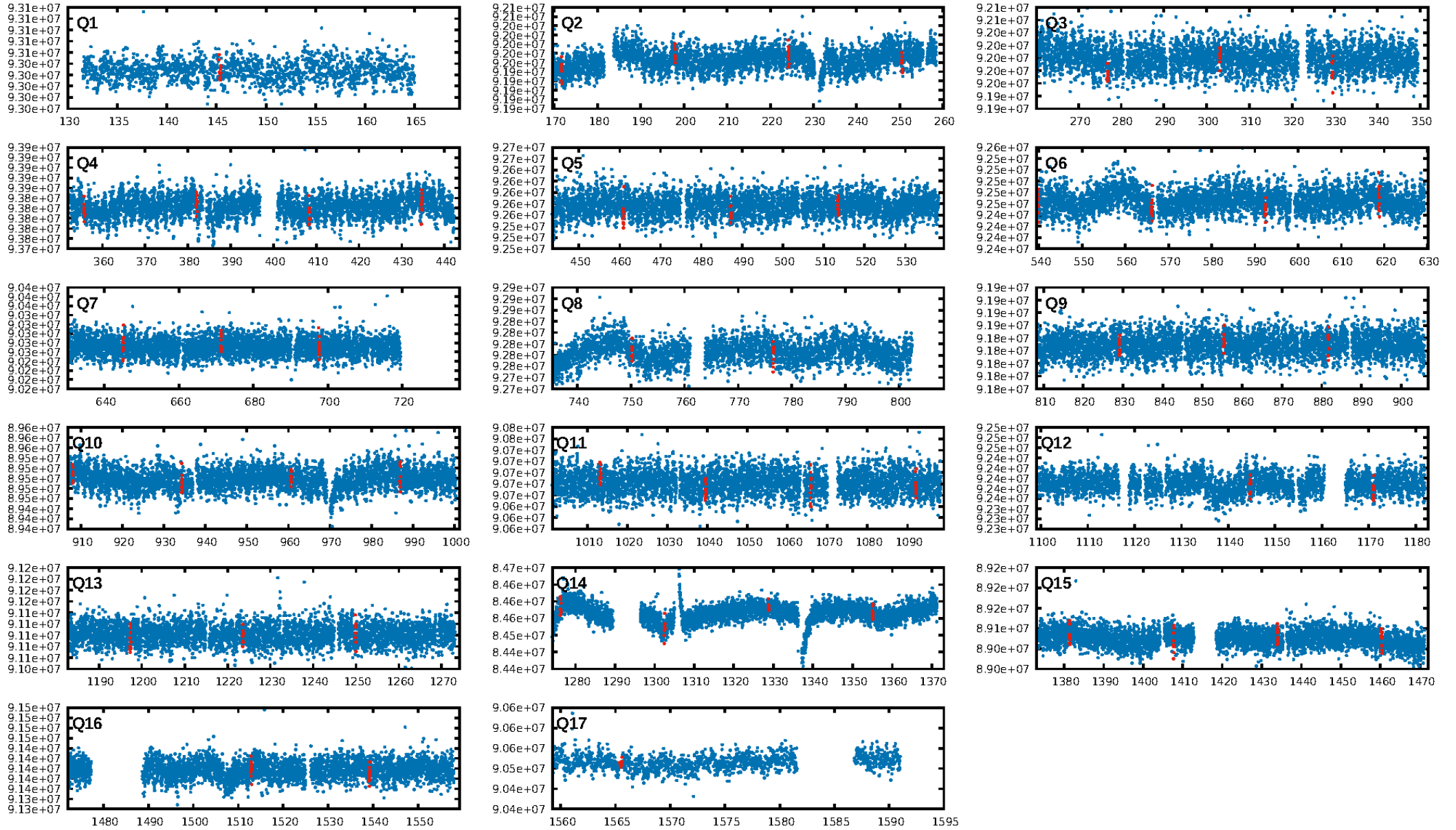
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [47.55σ]
LongPeriod-sig: 100.0% [464.19σ]
ModelChiSquare2-sig: 72.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.14e-09
RollingBand-fgt: 1.00 [19/19]
GhostDiagnostic-chr: 34.62
Centroid-sig: 36.2%
Centroid-so: 0.924 arcsec [0.87σ]
OotOffset-rm: 0.771 arcsec [0.49σ]
OotOffset-st: 1/3/3/4 [11]
KicOffset-rm: 0.805 arcsec [0.52σ]
KicOffset-st: 1/3/3/4 [11]
DiffImageQuality-fgm: 0.36 [4/11]
DiffImageOverlap-fno: 0.94 [16/17]

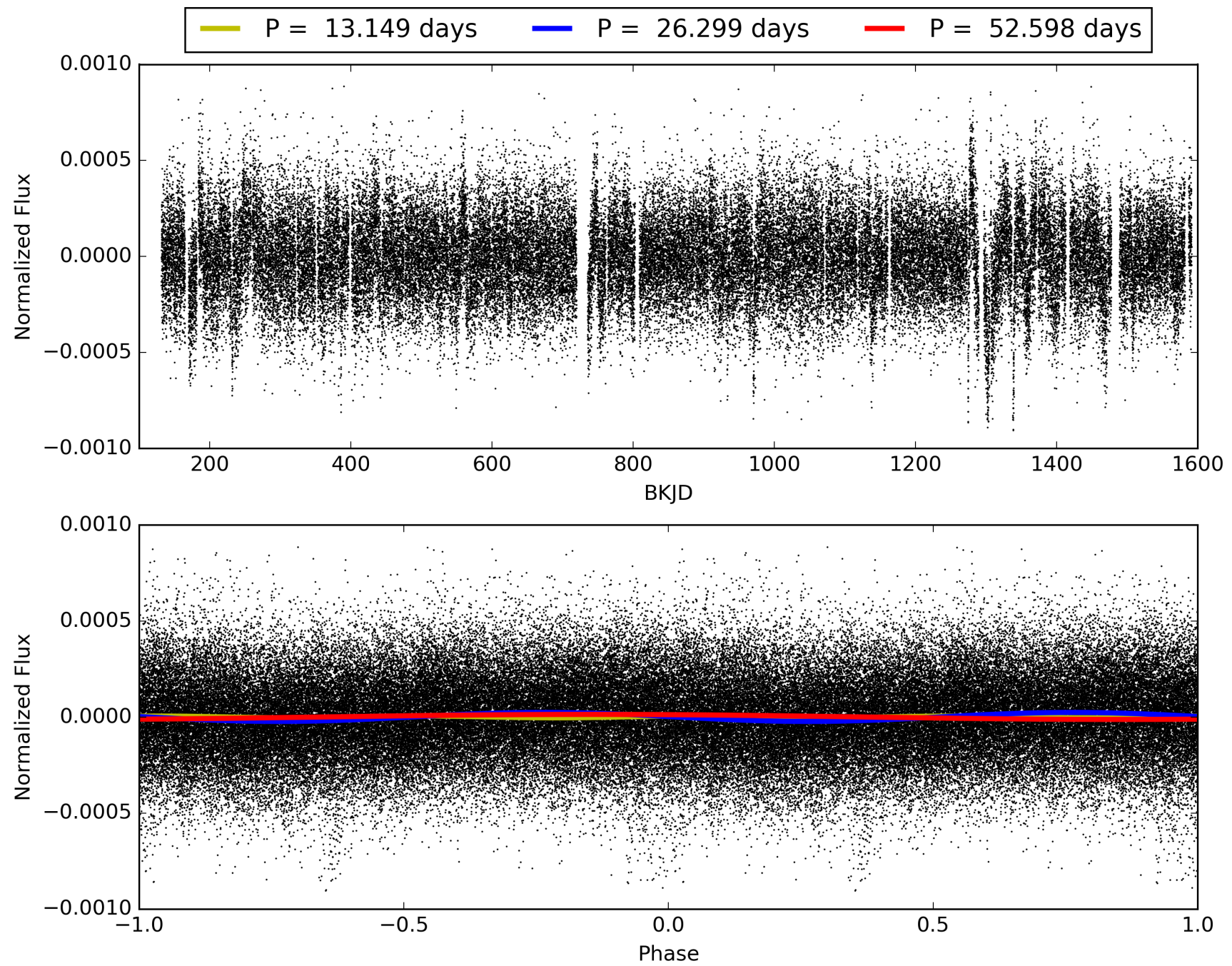
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 11:24:59 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 003955026-04, PDC Light Curves

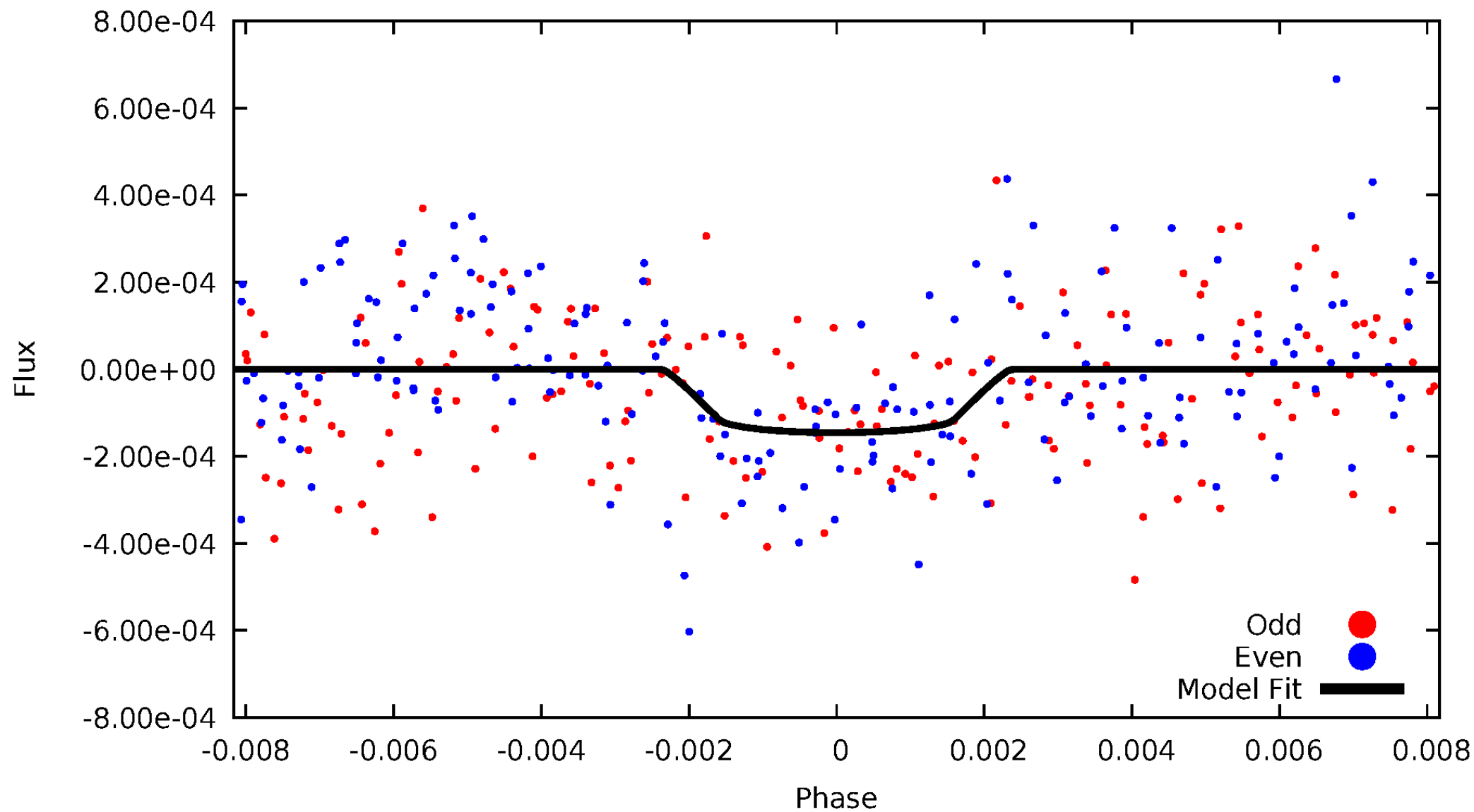


TCE 003955026-04



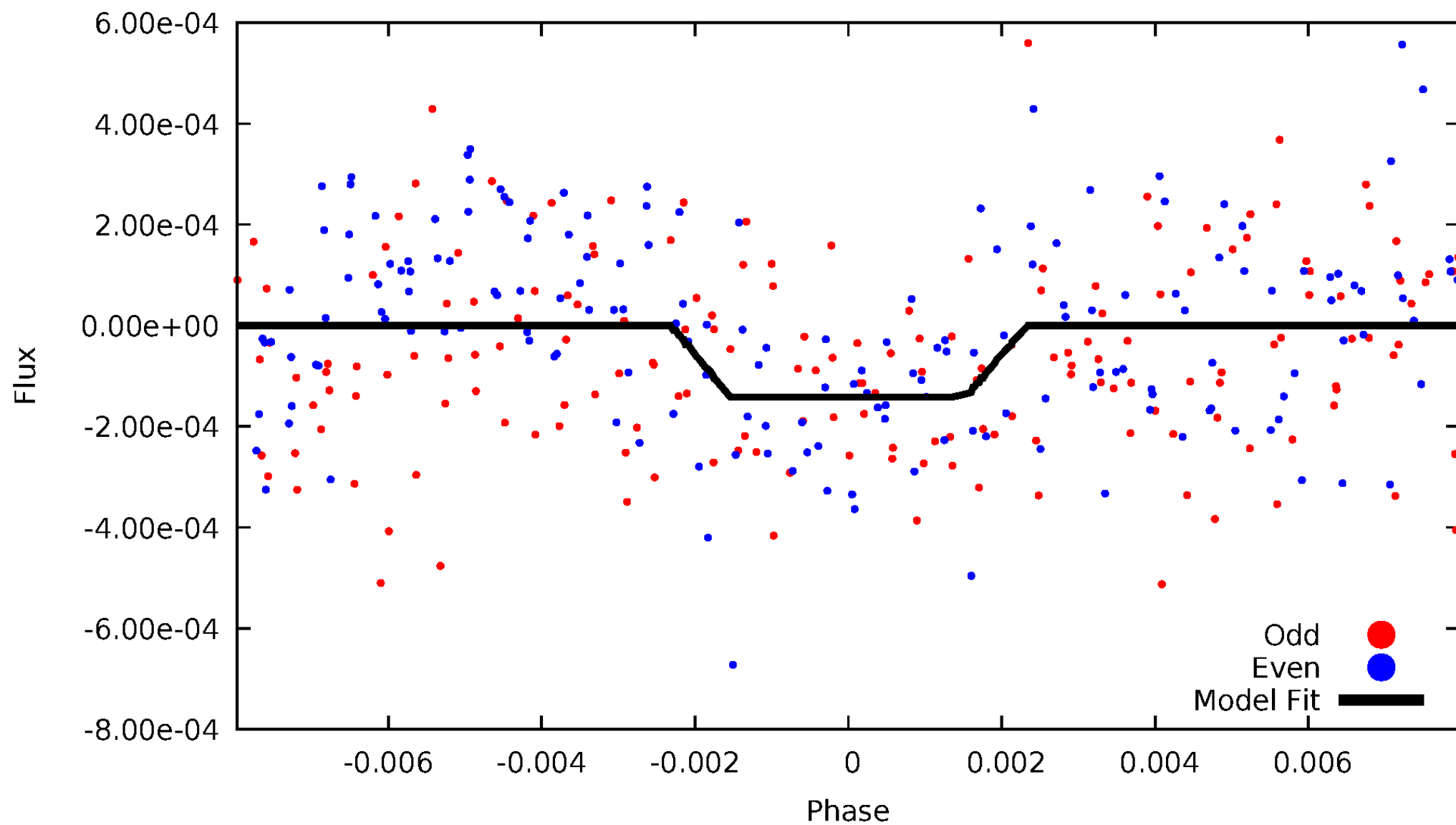
DV Odd/Even

TCE 003955026-04



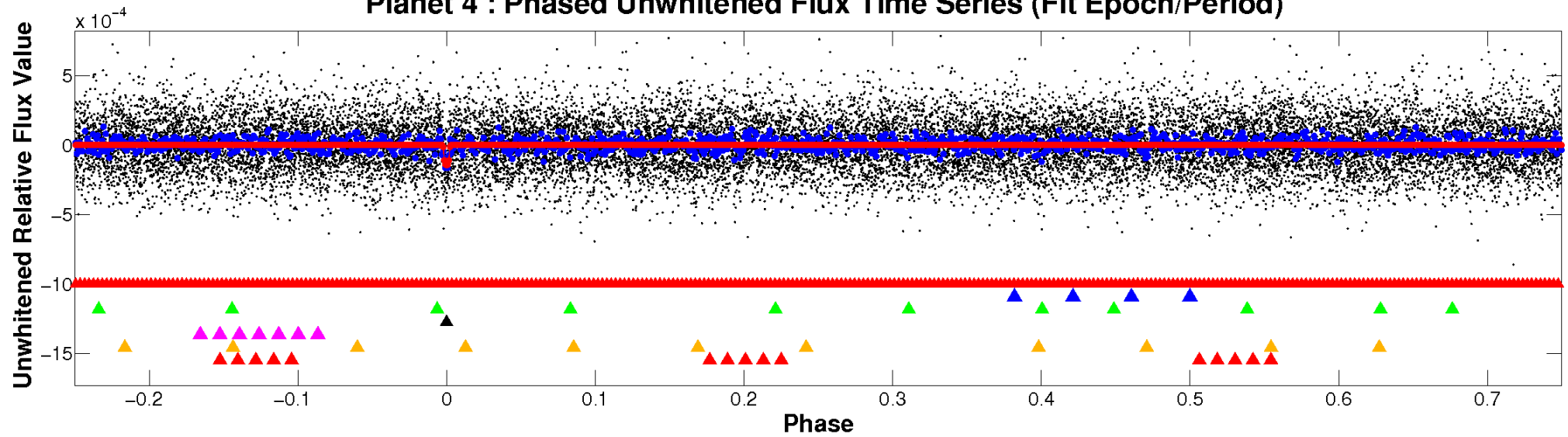
ALT Odd/Even

TCE 003955026-04

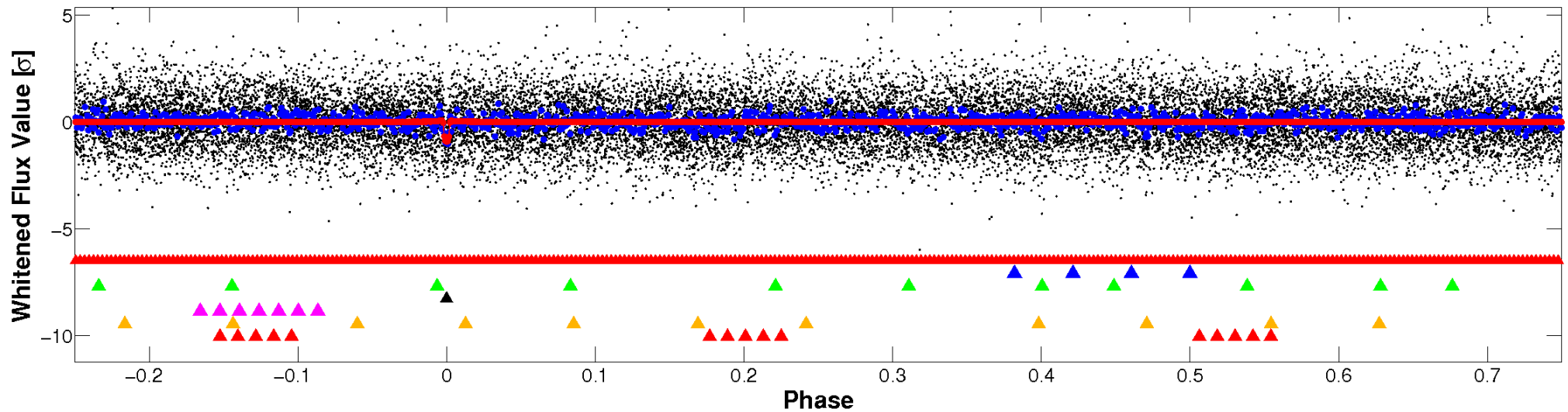


Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

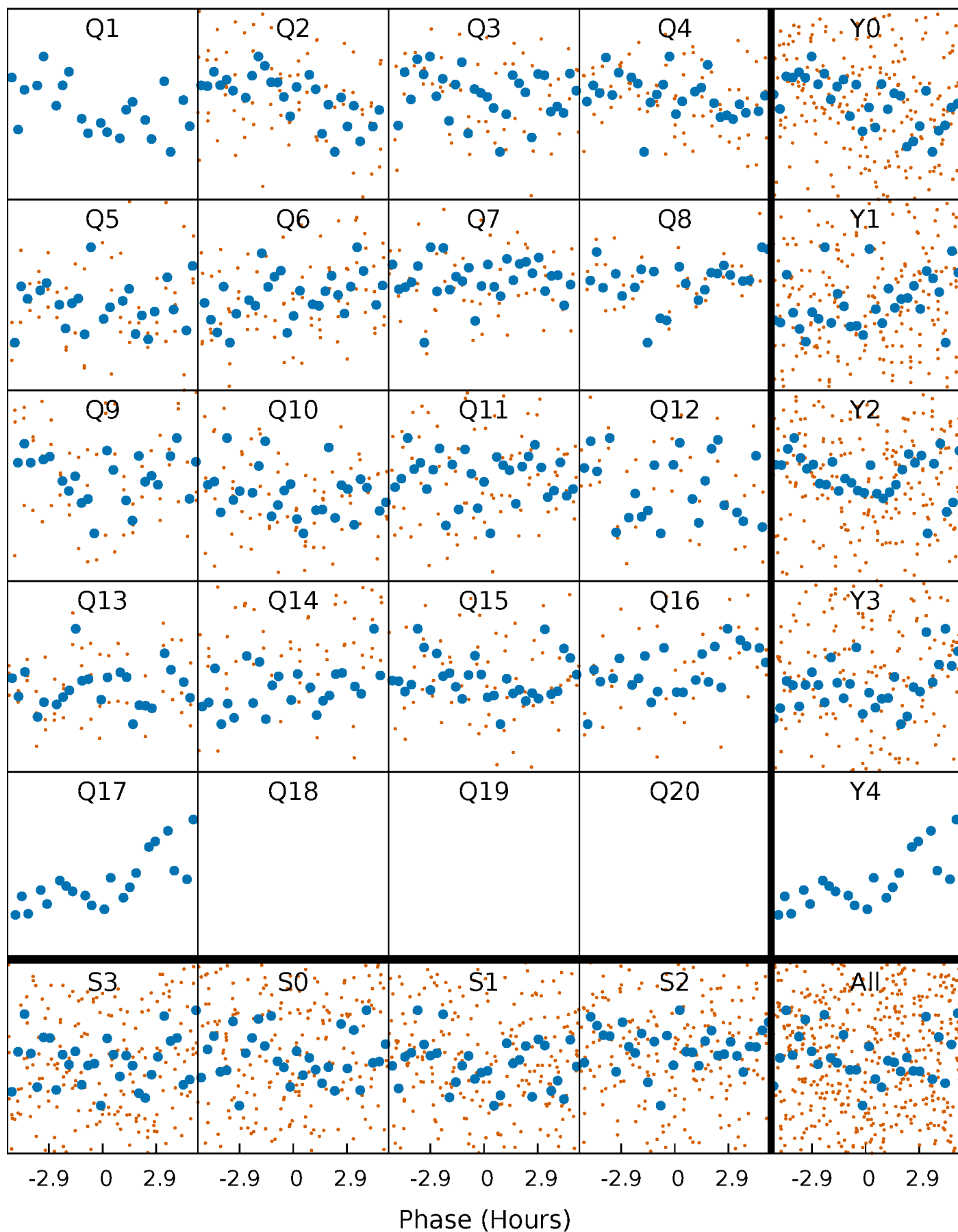


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



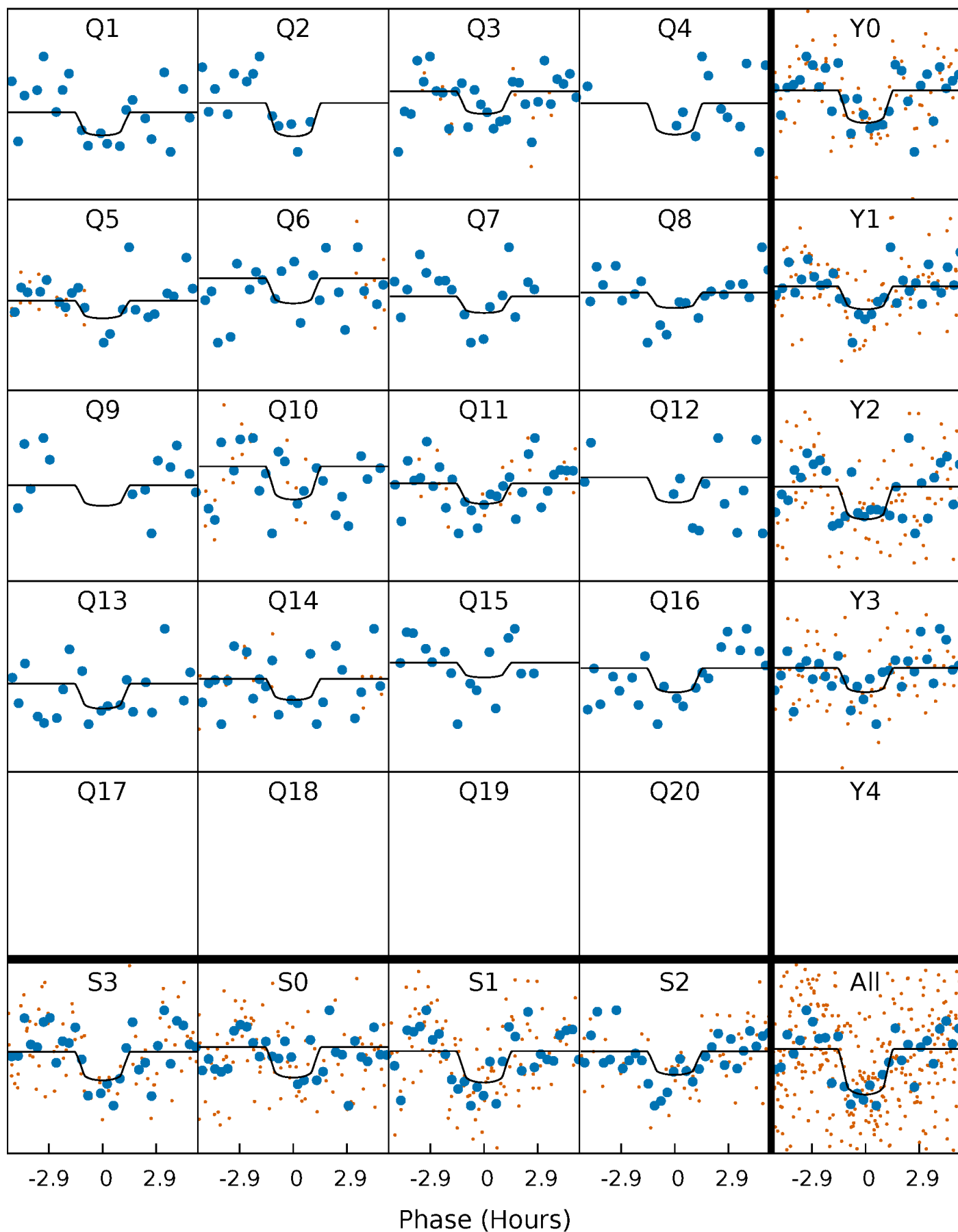
PDC Quarter-Phased Transit Curves

TCE 003955026-04 P= 26.298968 Days $T_0=145.354003$ (BKJD)



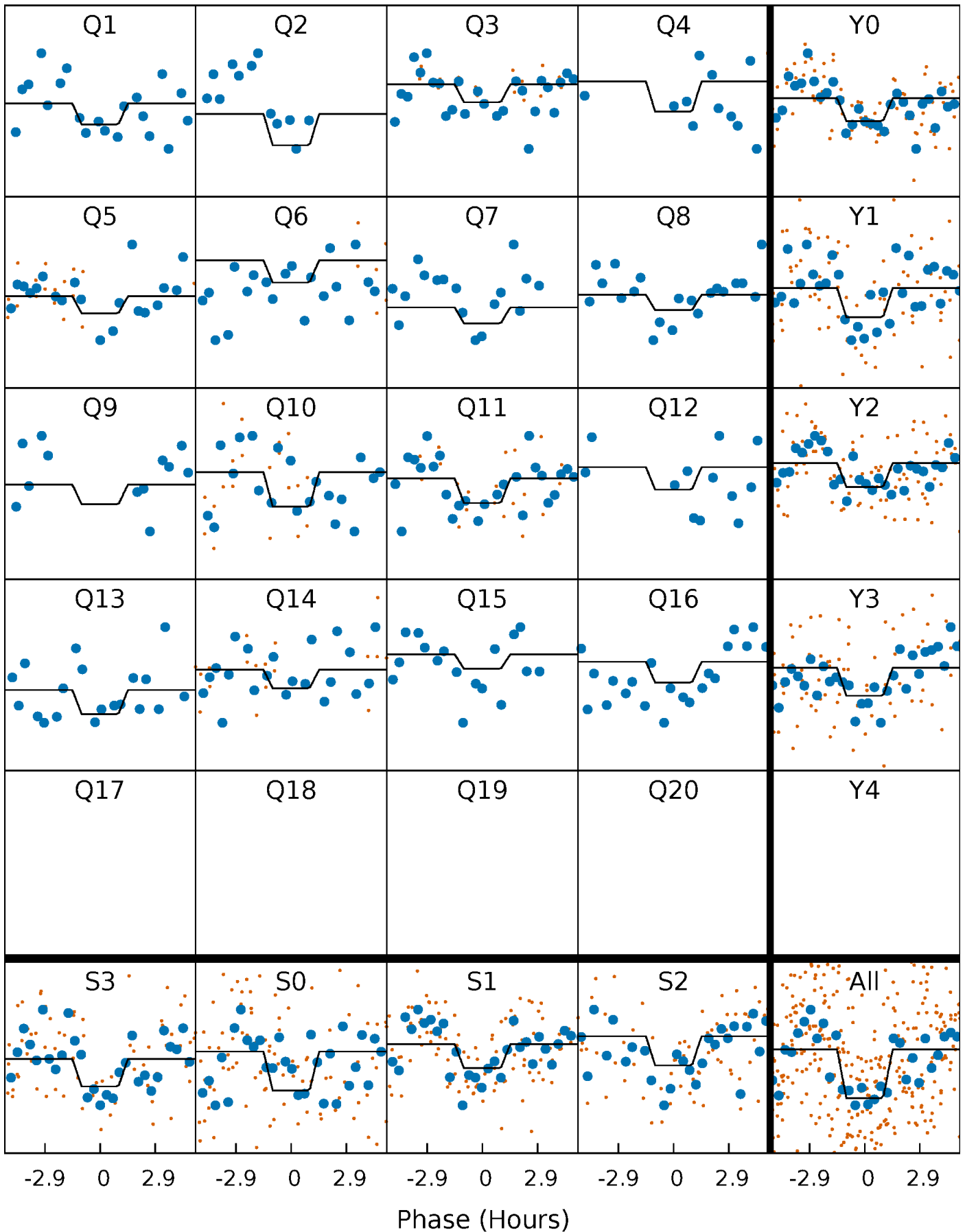
DV Quarter-Phased Transit Curves

TCE 003955026-04 P= 26.298968 Days $T_0=145.354003$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

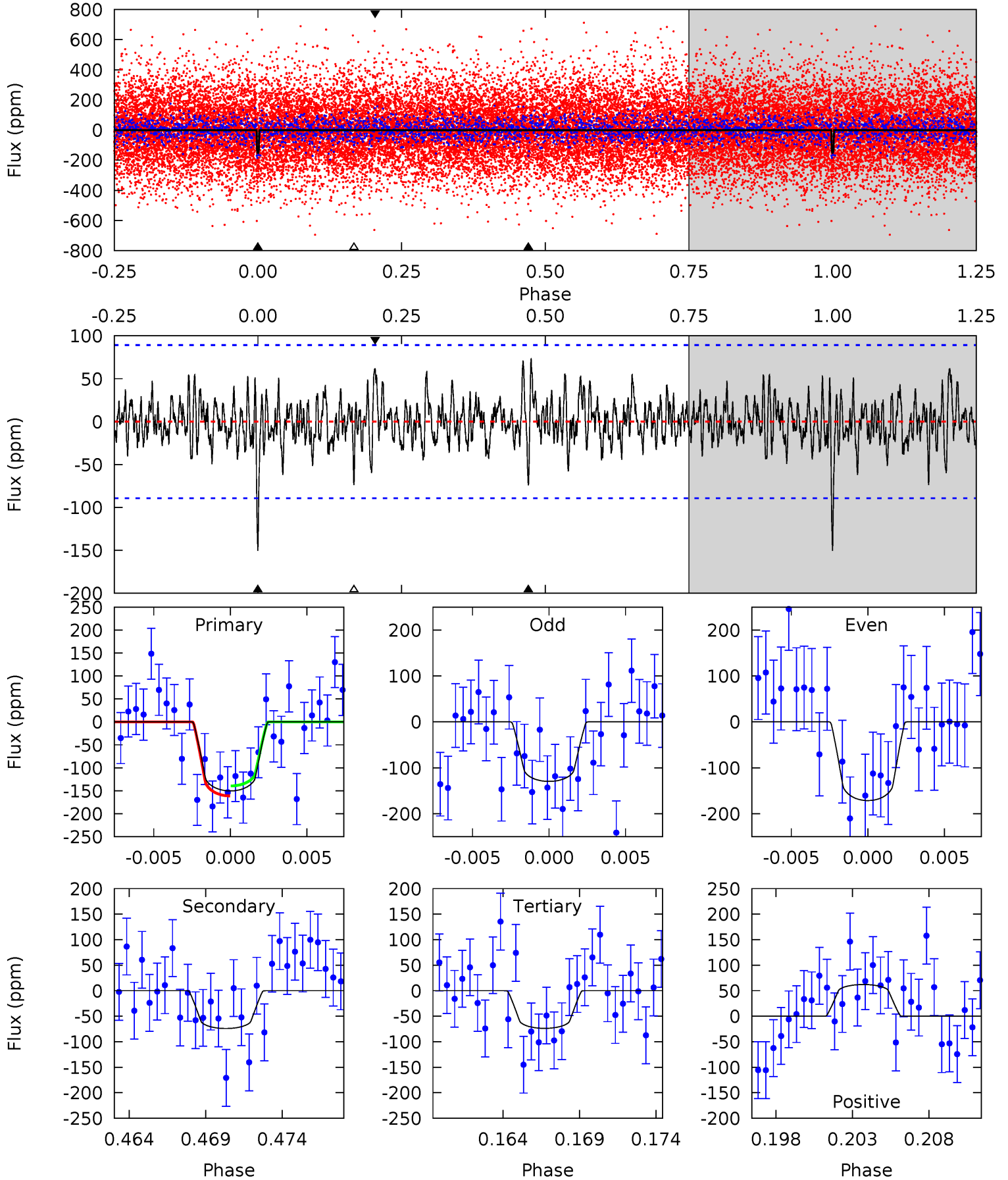
TCE 003955026-04 $P = 26.298686$ Days $T_0 = 145.354630$ (BKJD)



DV Model-Shift Uniqueness Test

003955026-04, P = 26.298968 Days, E = 119.055035 Days

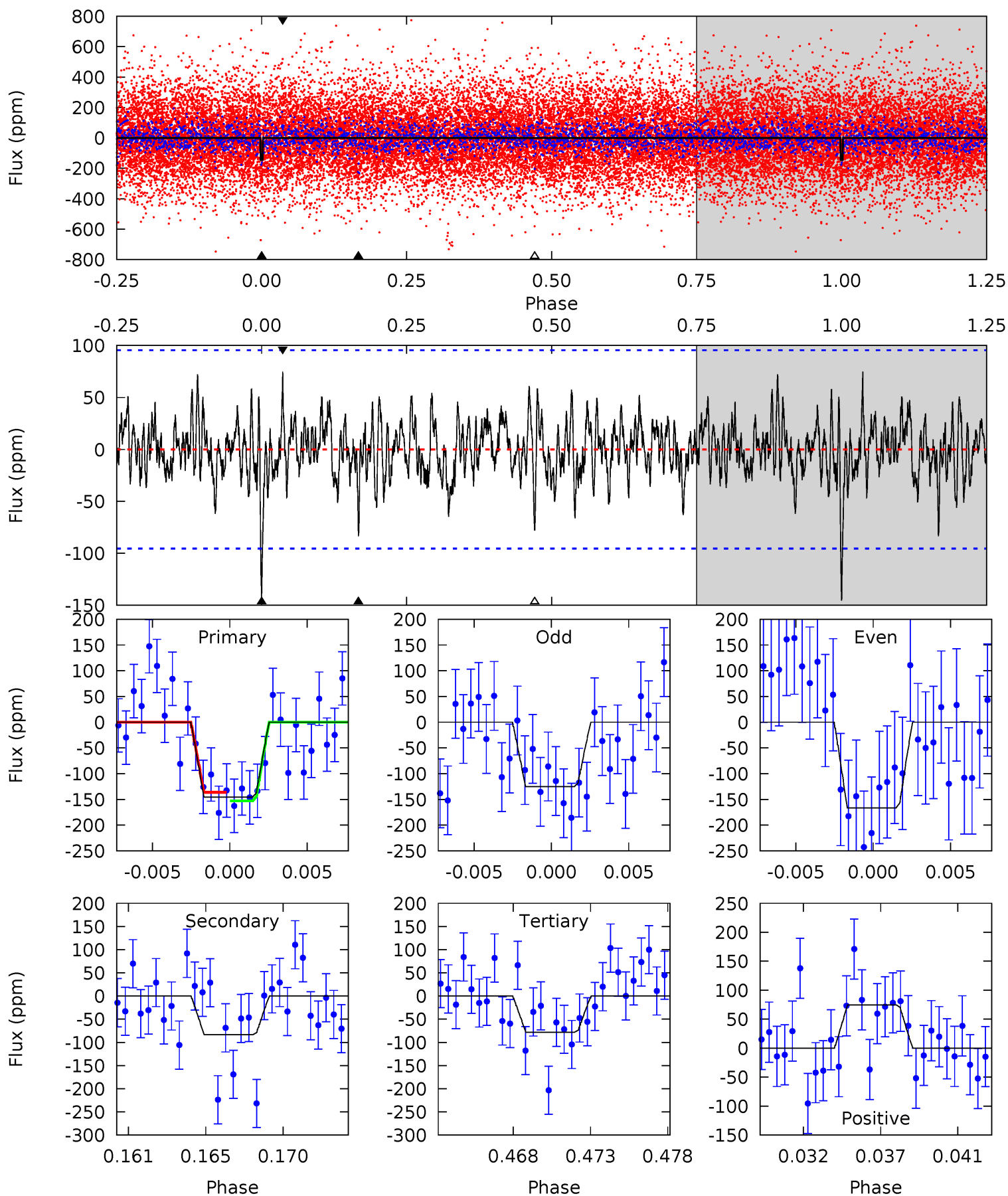
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.70	4.29	4.27	3.59	5.16	2.82	1.24	4.43	5.11	0.02	0.70	1.22	0.92	0.33	0.63



Alt Model-Shift Uniqueness Test

003955026-04, P = 26.298686 Days, E = 119.055944 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.88	4.53	4.23	4.05	5.17	2.83	1.25	3.65	3.83	0.30	0.48	1.12	0.82	0.34	0.46



Stellar Parameters For KIC 003955026

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6887^{+214}_{-285}	$4.055^{+0.246}_{-0.164}$	$-0.260^{+0.300}_{-0.300}$	$1.826^{+0.522}_{-0.522}$	$1.383^{+0.207}_{-0.253}$	$0.320^{+0.440}_{-0.151}$
	+3%/-4%	+6%/-4%	+115%/-115%	+29%/-29%	+15%/-18%	+137%/-47%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 003955026-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-74 ± 17	$2.70^{+2.04}_{-1.63}$	1286^{+110}_{-106}	5346^{+3564}_{-1132}	192^{+1106}_{-132}
Alt.	-84 ± 18	$2.56^{+2.17}_{-1.67}$	1294^{+94}_{-107}	5687^{+4686}_{-1306}	261^{+1623}_{-192}

T_{max} = Theoretical Maximum Planetary Temperature
 T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)
 A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

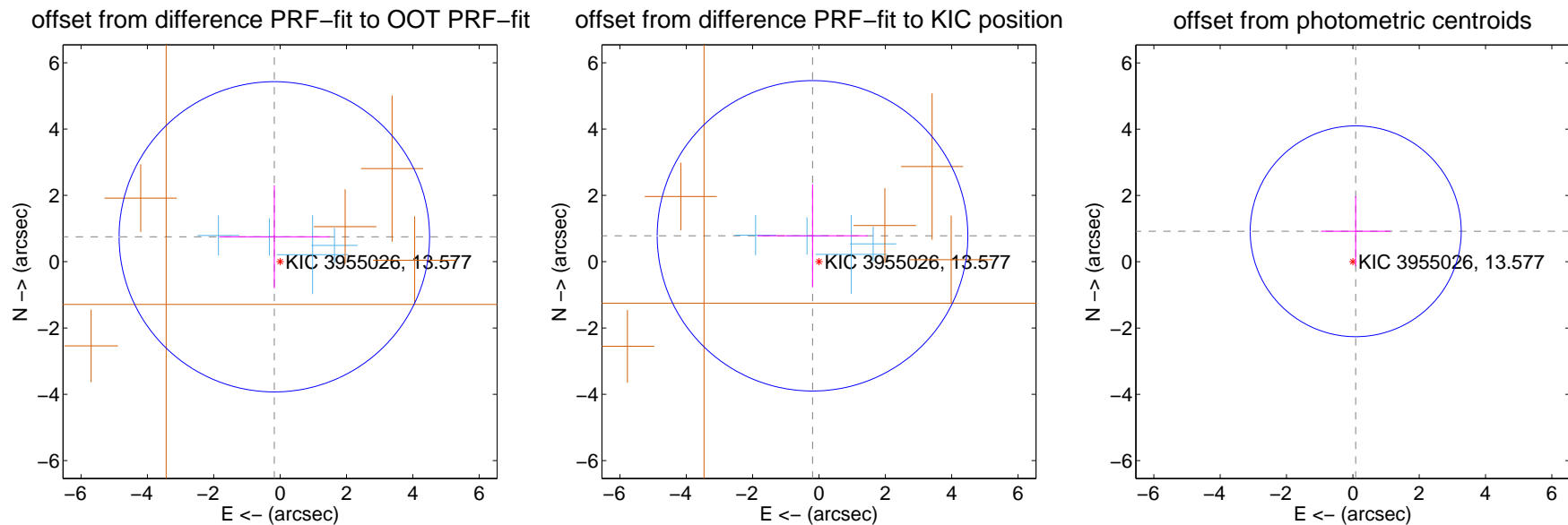
DV Centroid Data

Supplemental centroid analysis for 003955026-04. Kepler magnitude: 13.58. Transit SNR 7.57

There are 4 quarters with good PRF difference image offsets

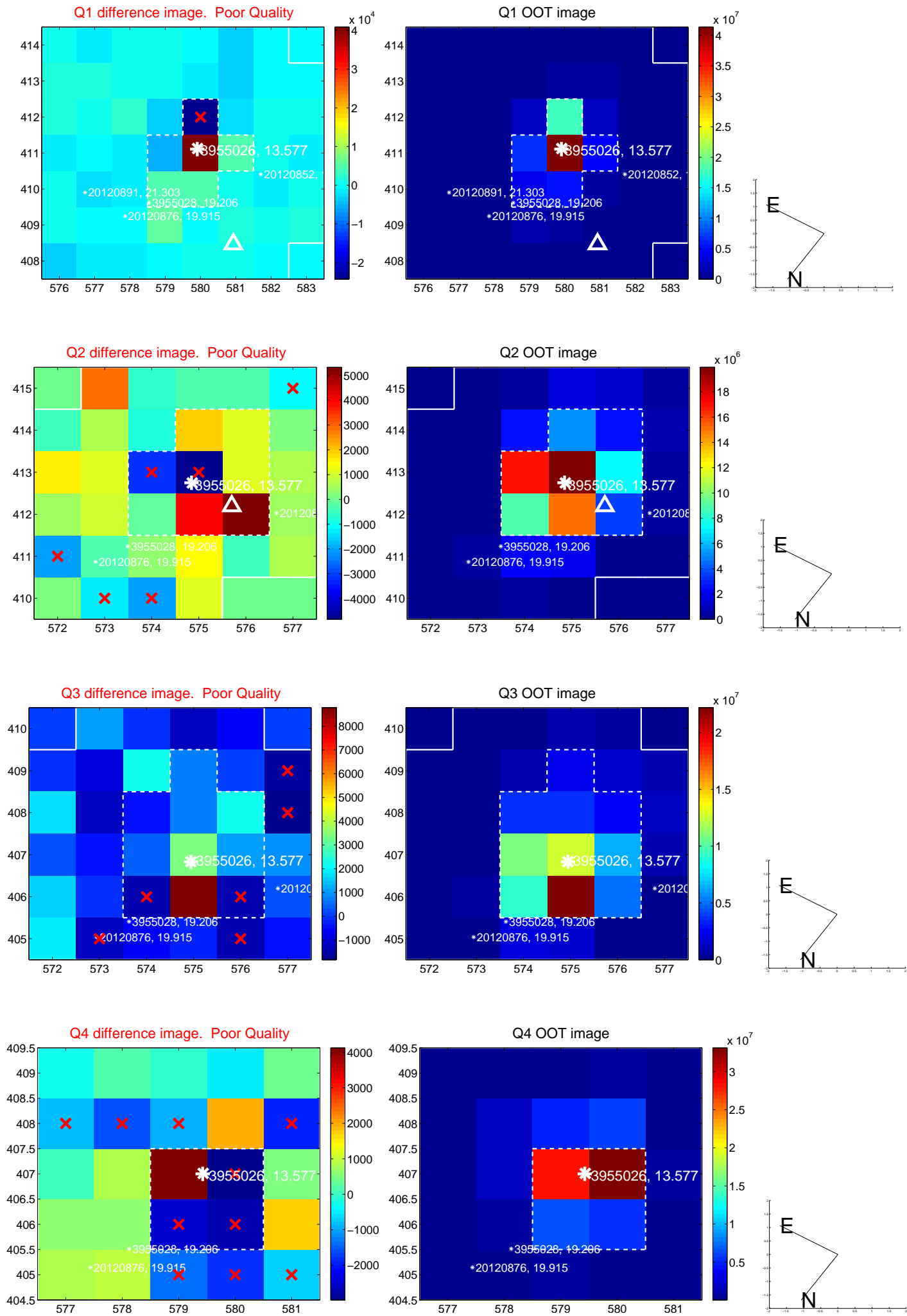
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.771 ± 1.560	0.49	0.174 ± 1.661	0.751 ± 1.554
PRF-fit source offset from KIC position	0.805 ± 1.561	0.52	0.195 ± 1.661	0.781 ± 1.554
photometric centroid source offset	0.92 ± 1.06	0.87	-0.09 ± 1.05	0.92 ± 1.06

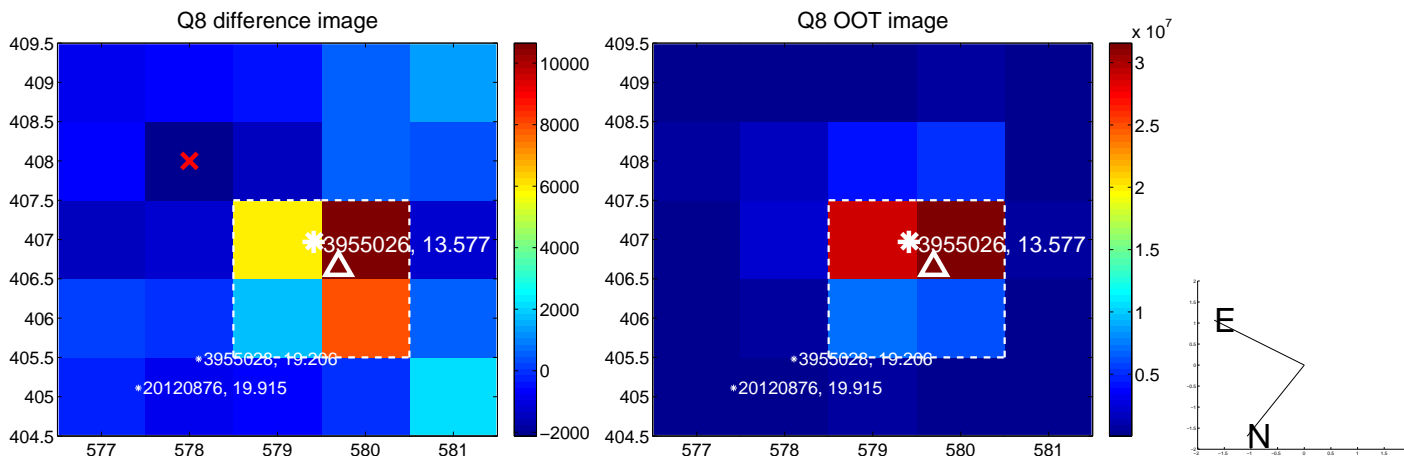
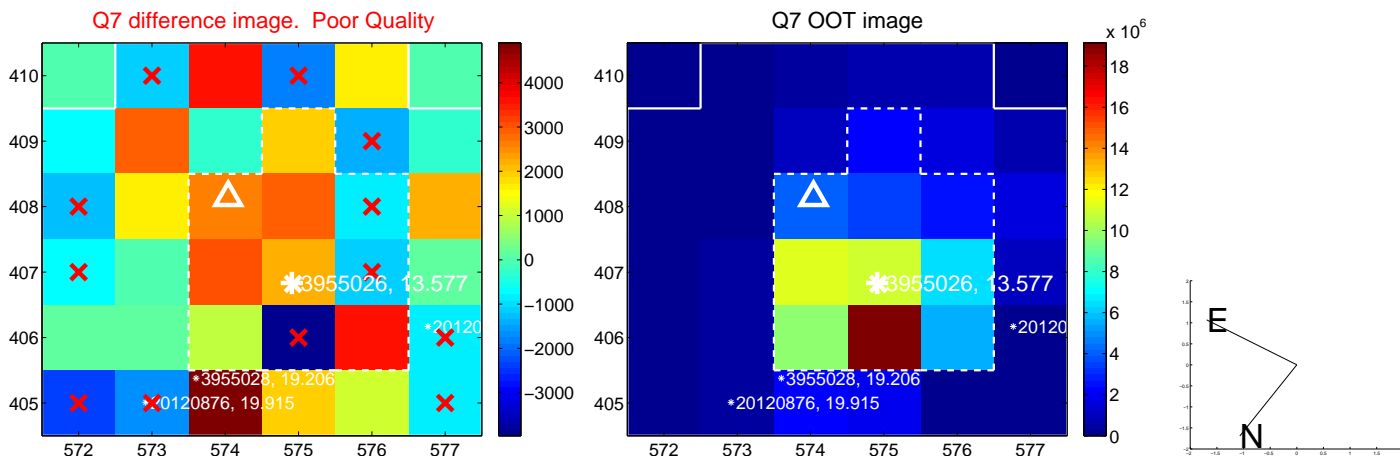
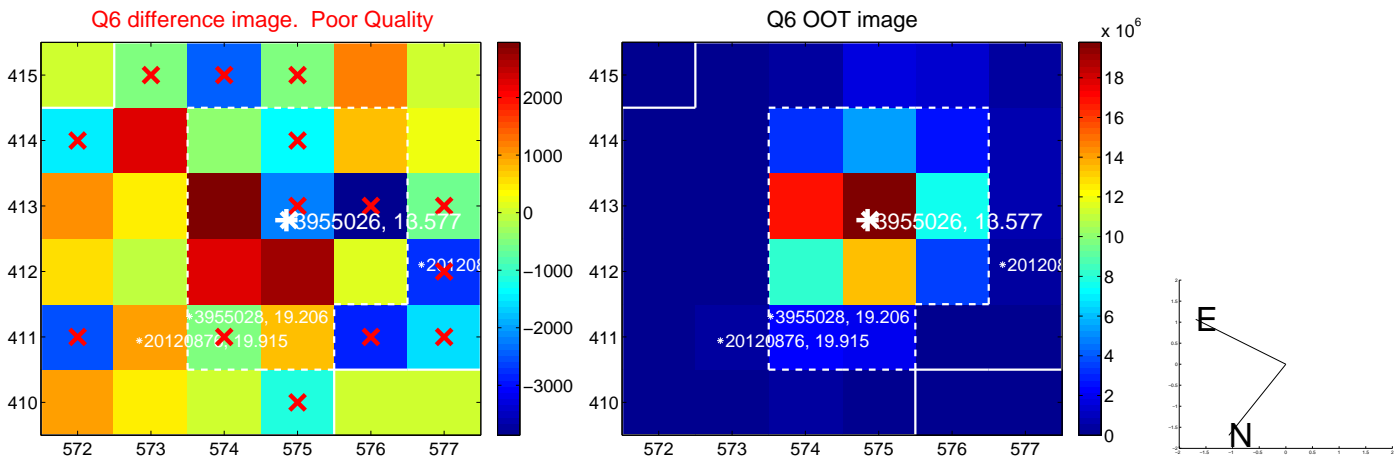
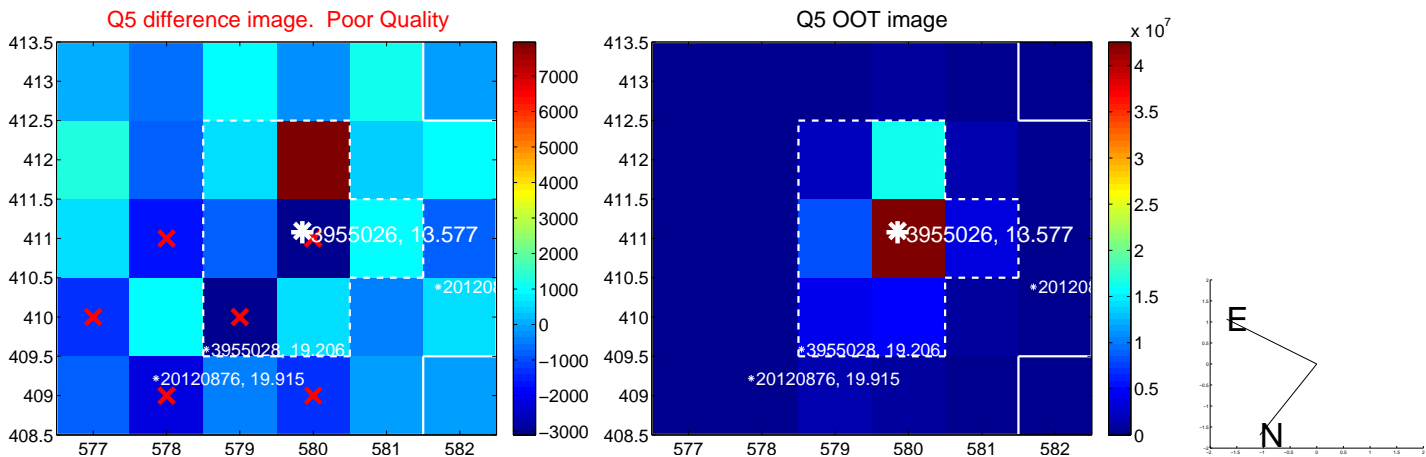


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

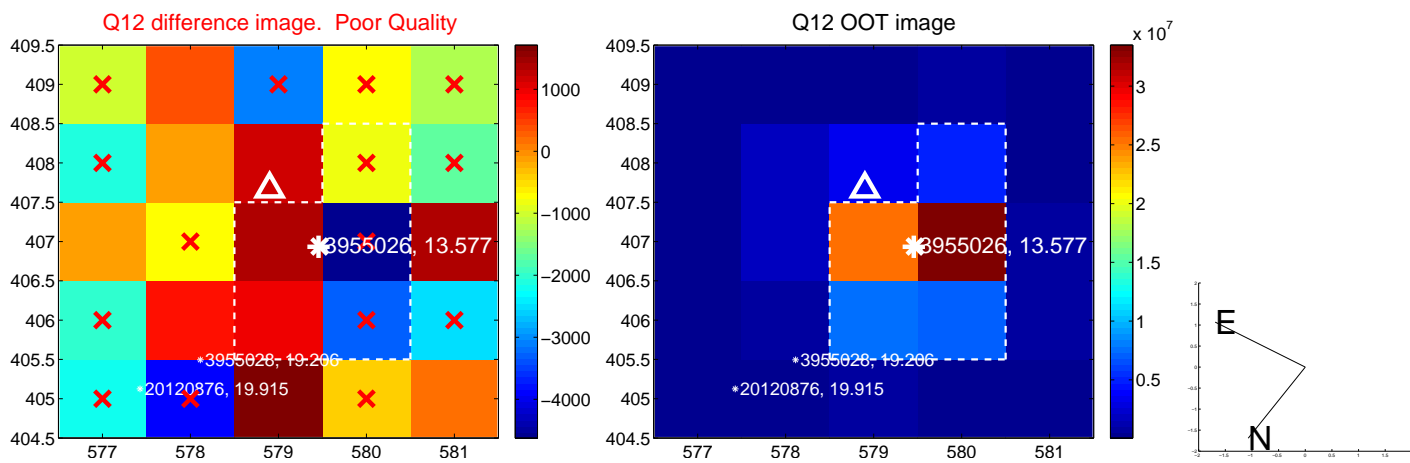
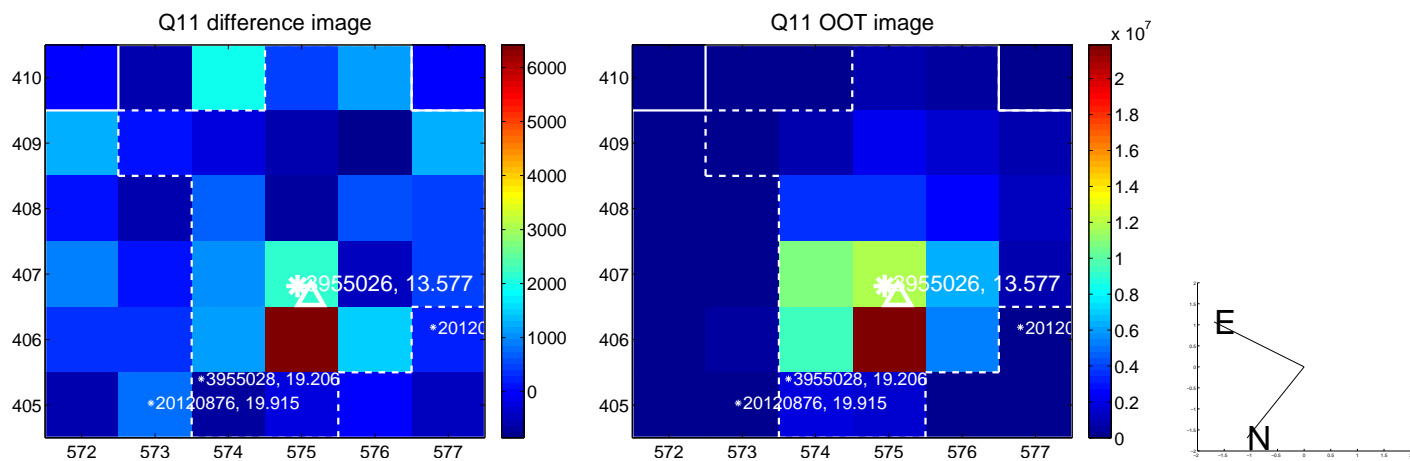
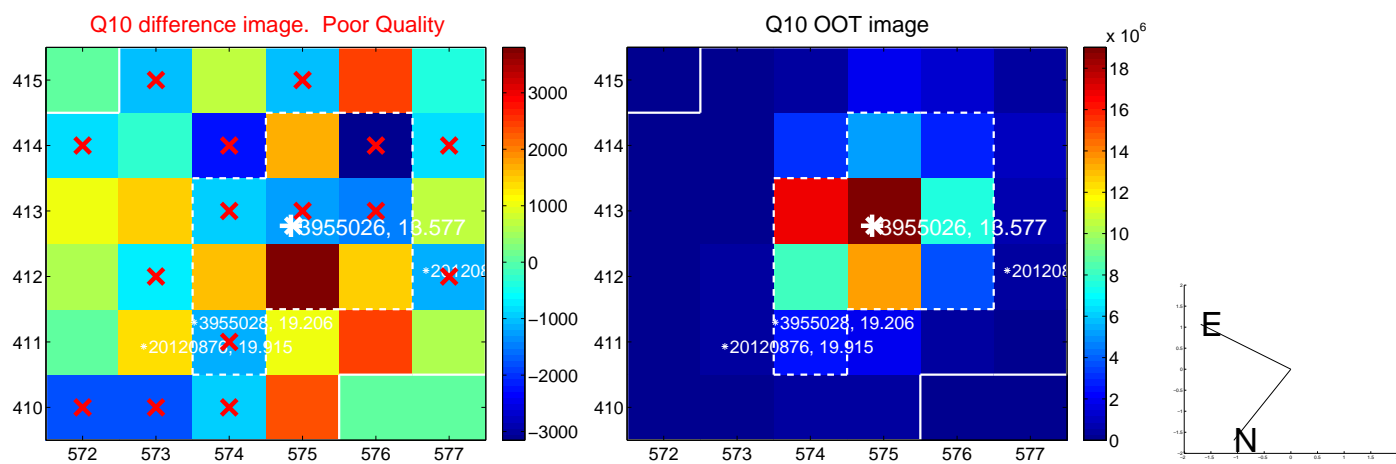
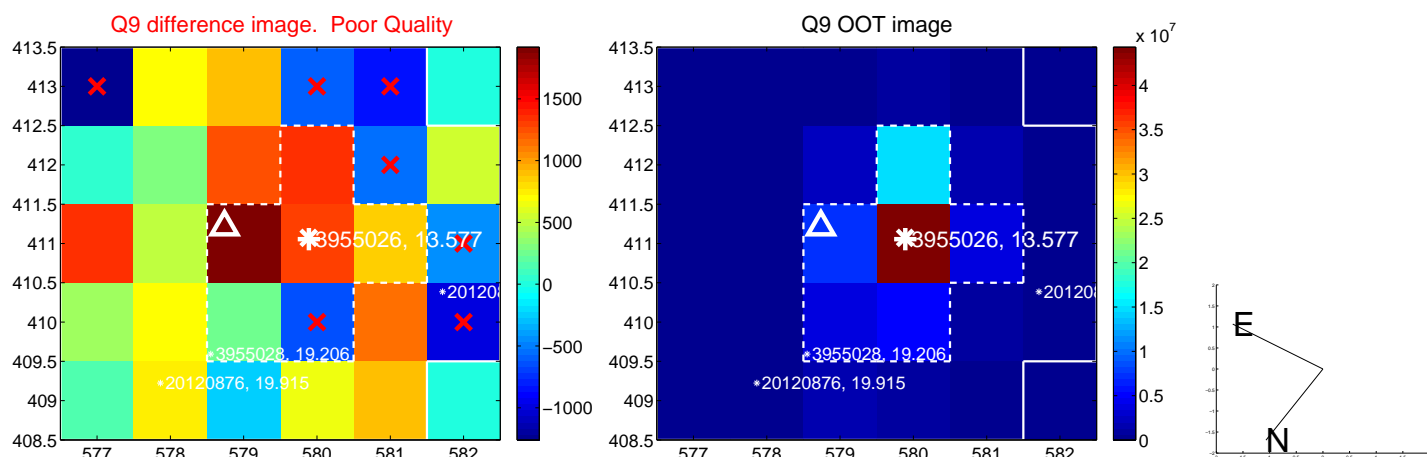
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



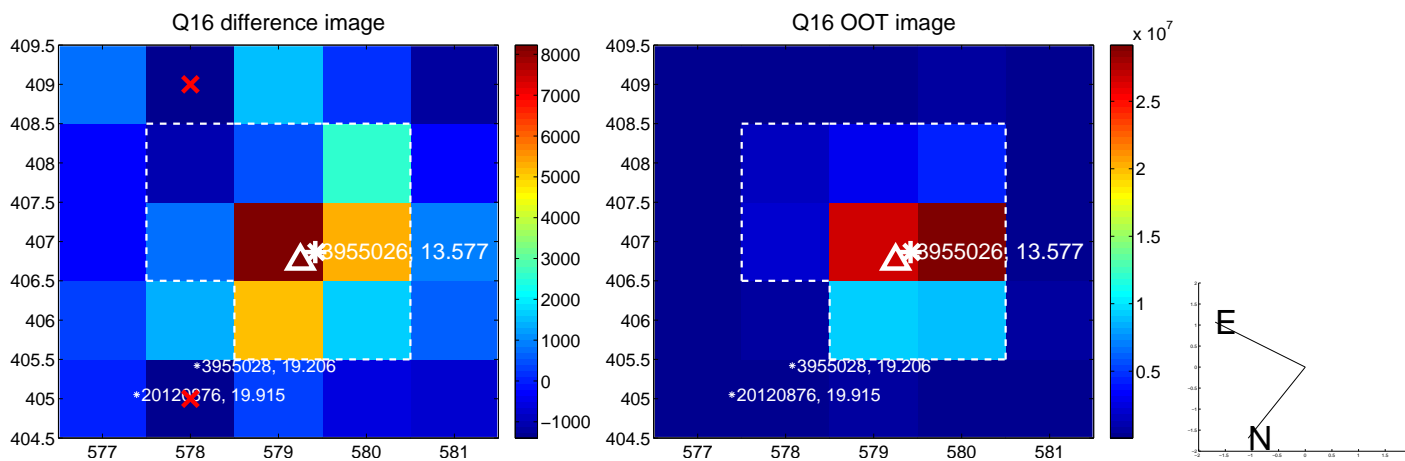
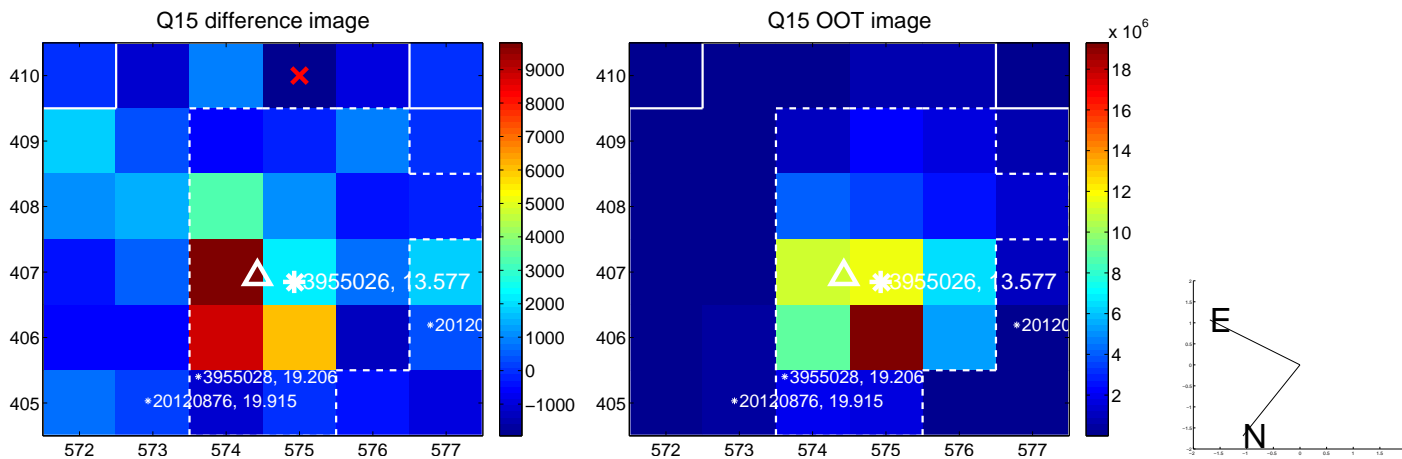
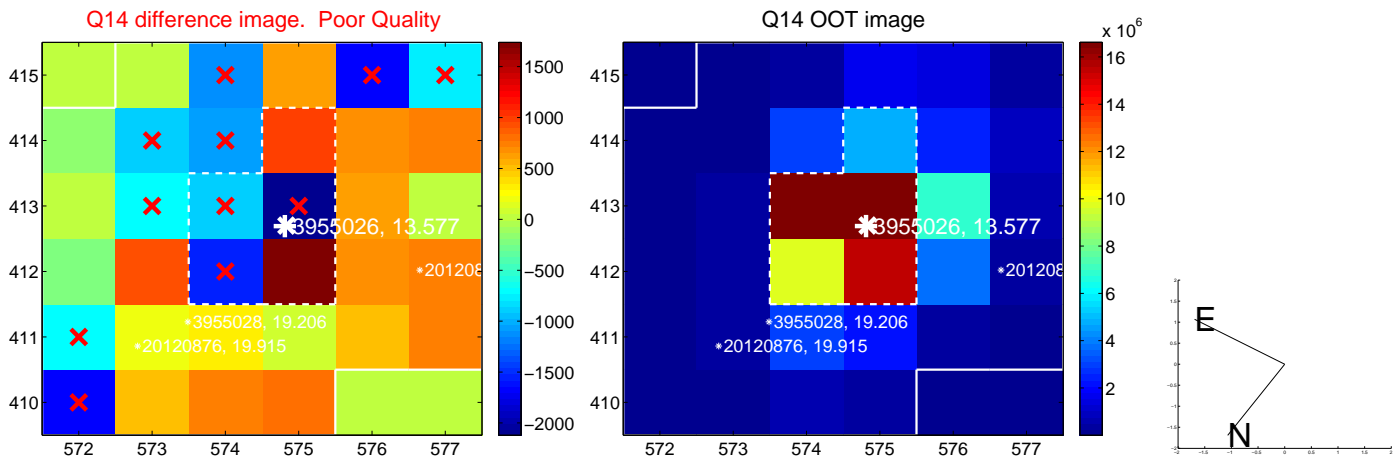
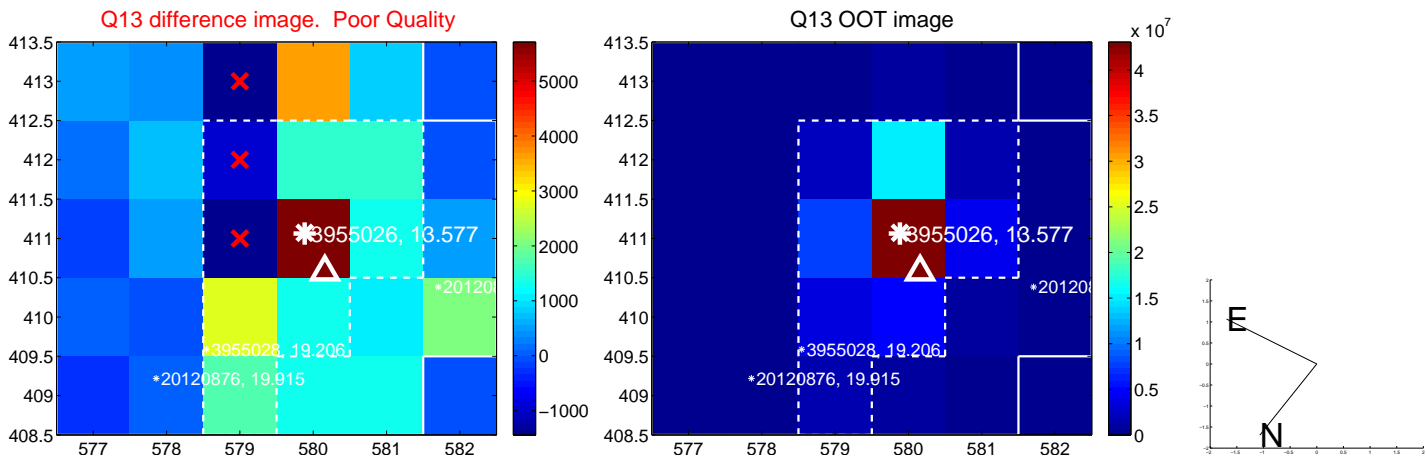
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



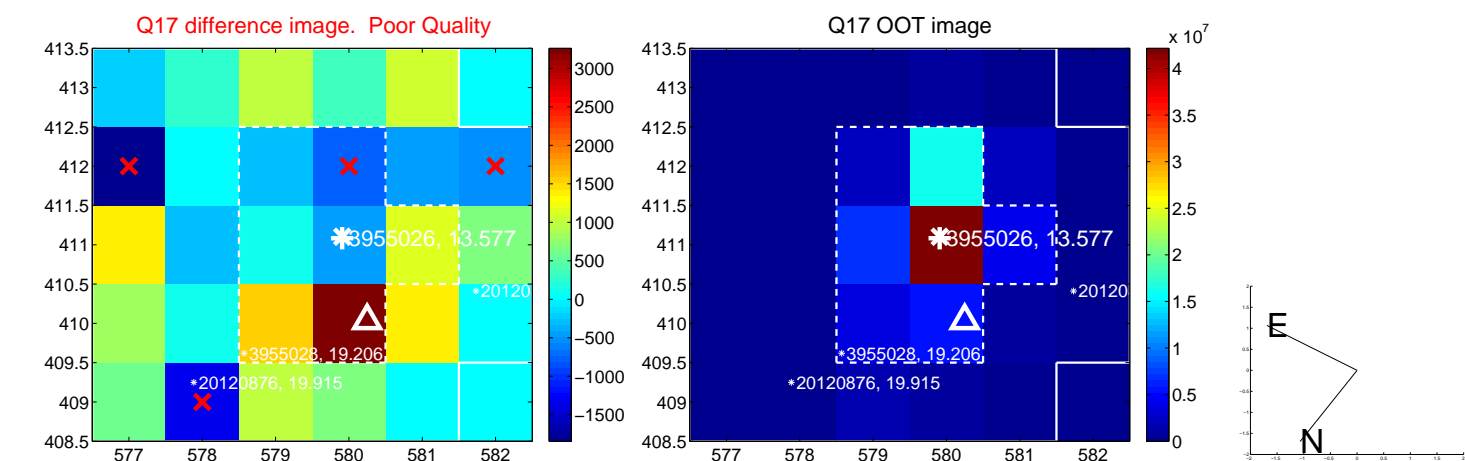
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



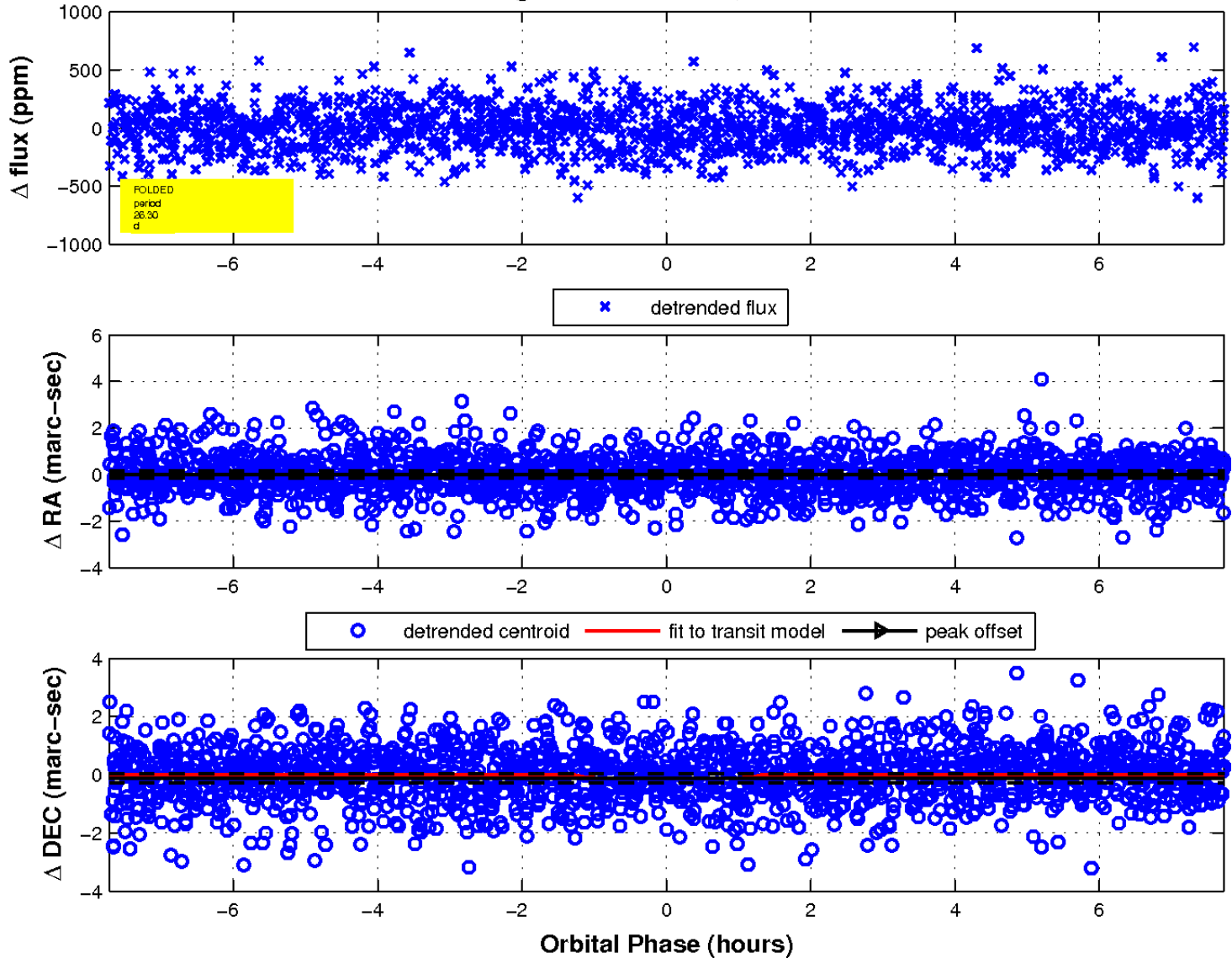
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

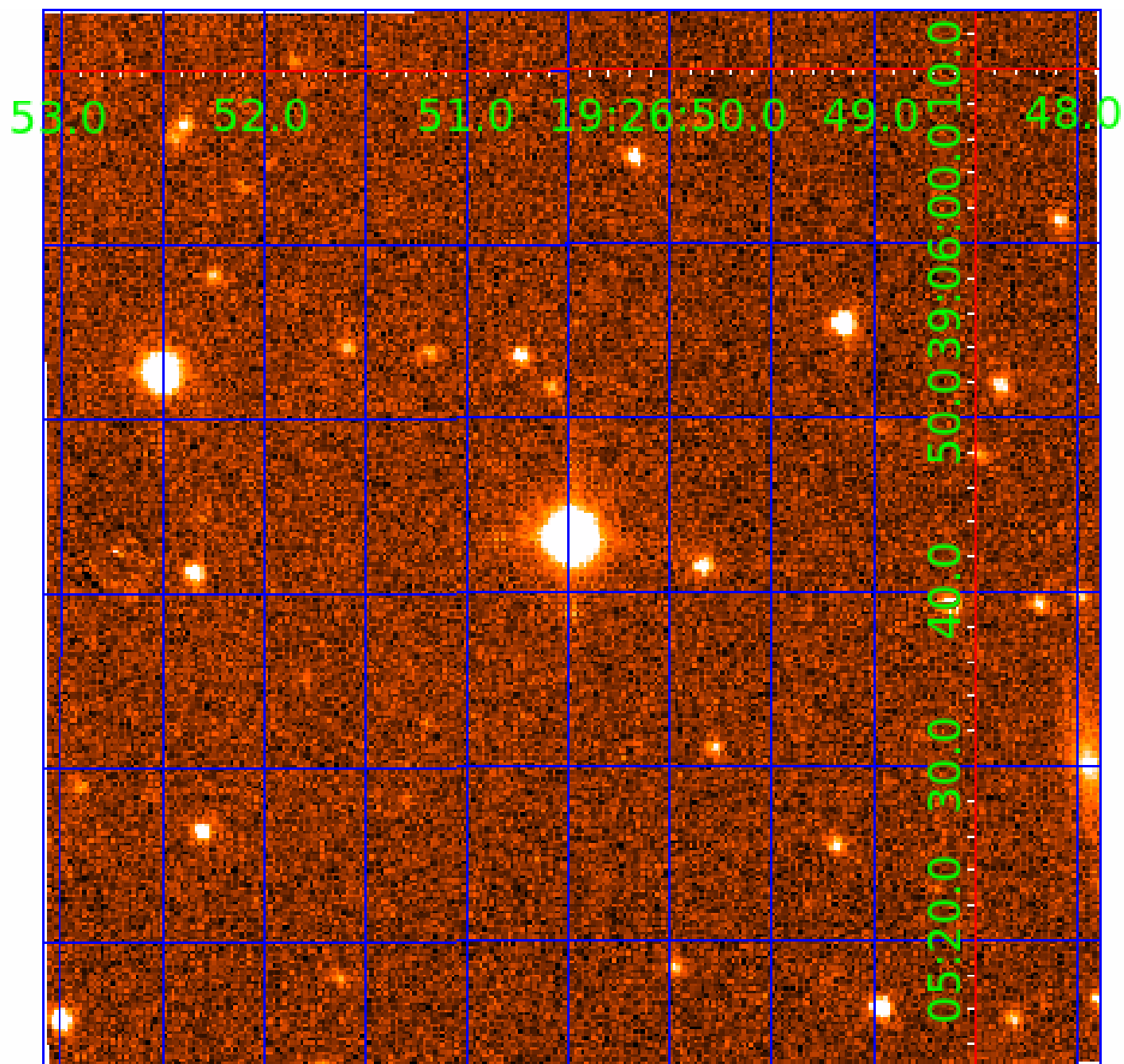


fluxWeightedCentroids, Planet 4 of 7



UKIRT Image

Declination



KIC 003955026

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
003955026-01	OBS	No	2.269846	132.925833	12.1	11.851	7.6	5.0	1.83	6887	0.64	4742.64
003955026-02	OBS	No	472.347430	158.501324	210.4	27.735	9.4	8.9	1.83	6887	3.06	3.85
003955026-03	OBS	No	137.480174	208.485675	400.2	2.120	7.8	8.5	1.83	6887	4.25	19.94
003955026-04	OBS	No	26.298968	145.354003	145.5	2.576	7.8	7.6	1.83	6887	2.48	180.90
003955026-05	OBS	No	210.044960	143.078264	335.9	3.609	7.5	8.0	1.83	6887	3.76	11.33
003955026-06	OBS	No	141.631780	173.900844	338.2	2.378	7.2	8.1	1.83	6887	3.92	19.16
003955026-07	OBS	No	96.535051	211.266209	302.1	2.559	7.4	7.9	1.83	6887	3.53	31.95

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003955026-01	OBS	FP	0.00	1	0	0	0	LPP_DV
003955026-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
003955026-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
003955026-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
003955026-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
003955026-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS—HALO_GHOST
003955026-07	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

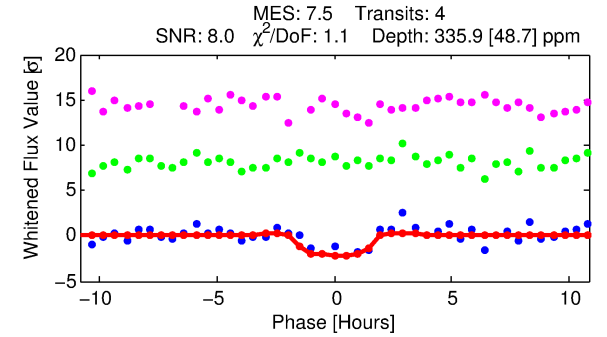
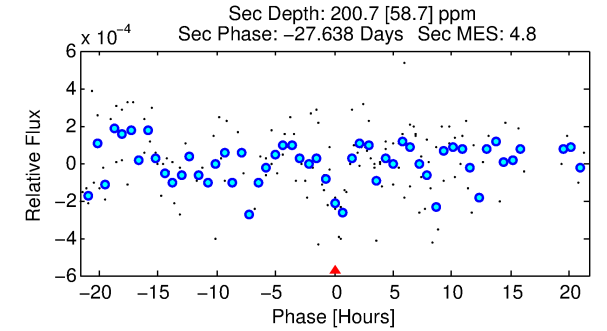
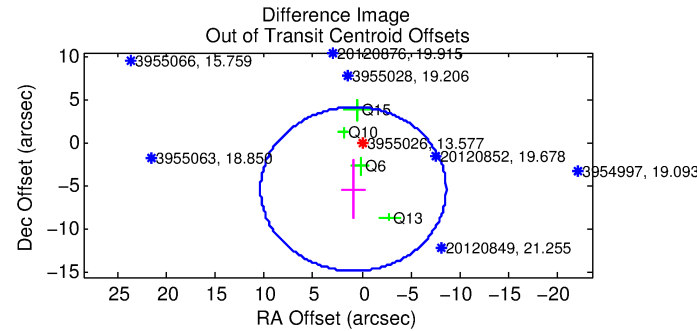
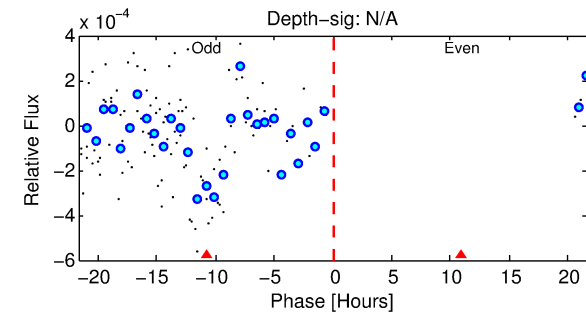
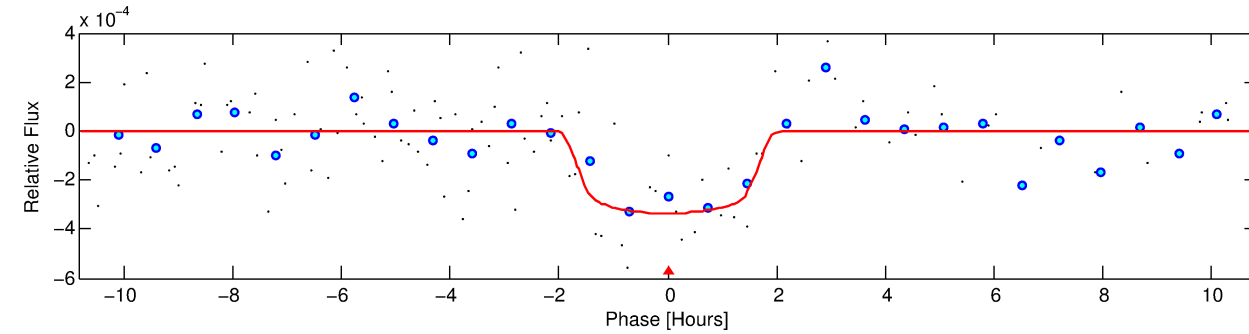
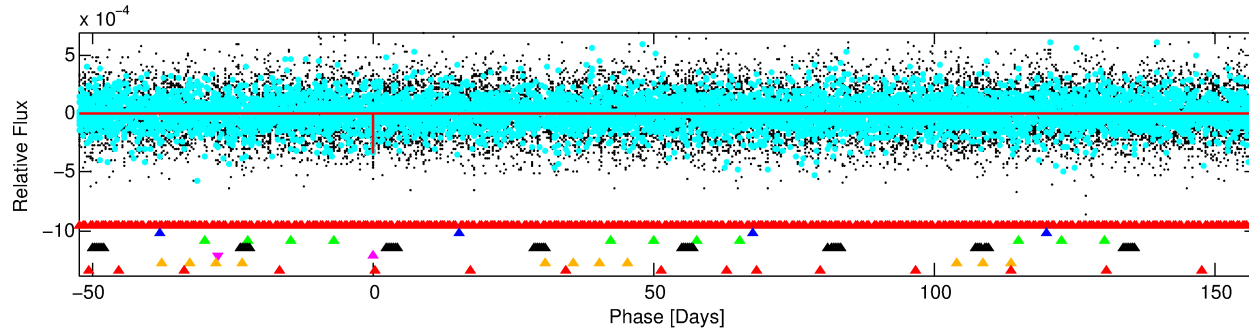
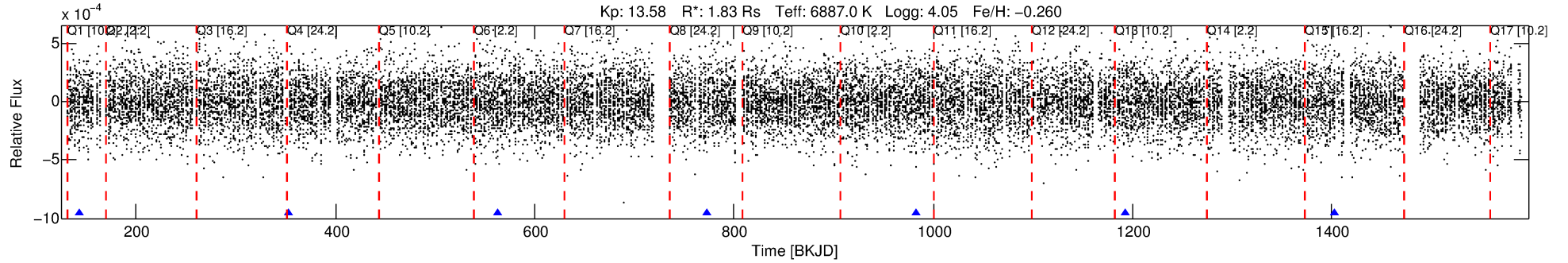
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003955026-05

No Significant Match Found

DV One-Page Summary

KIC: 3955026 Candidate: 5 of 7 Period: 210.045 d



DV Fit Results:

Period = 210.04496 [0.00263] d
Epoch = 143.0783 [0.0083] BKJD
Rp/R* = 0.0189 [0.0133]
a/R* = 255.91 [1072.31]
b = 0.84 [1.47]
Seff = 11.33 [5.15]
Teq = 468 [53] K
Rp = 3.76 [2.87] Re
a = 0.7701 [0.2066] AU
Ag = 4642.63 [6992.41] [0.66σ]
Teffp = 5971 [2172] K [2.53σ]

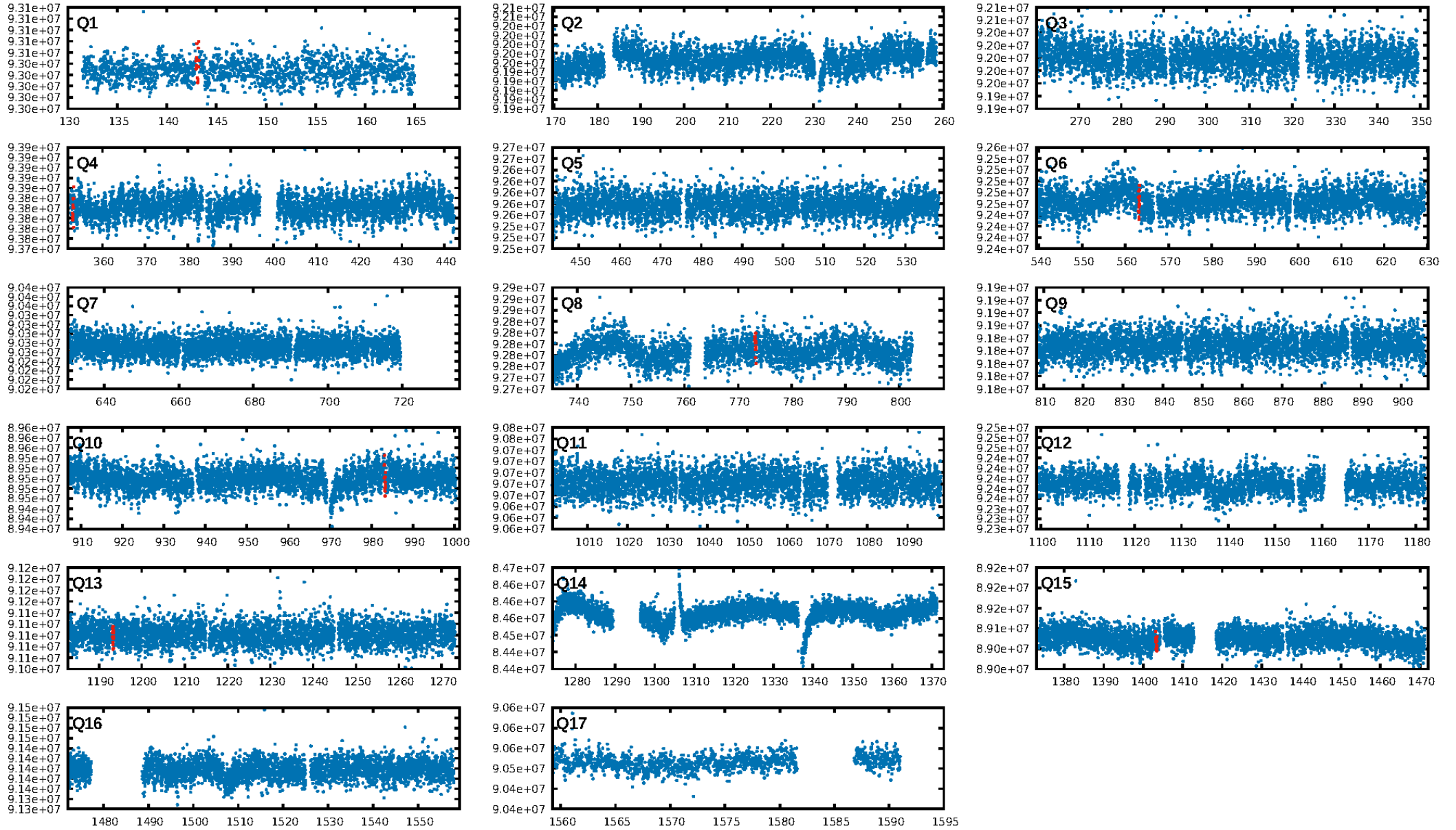
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [379.85σ]
LongPeriod-sig: 100.0% [225.08σ]
ModelChiSquare2-sig: 55.1%
ModelChiSquareGof-sig: 99.4%
Bootstrap-pfa: 6.22e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -7.541
Centroid-sig: 4.6%
Centroid-so: 1.886 arcsec [1.92σ]
OotOffset-rm: 5.401 arcsec [1.71σ]
KicOffset-rm: 5.362 arcsec [1.80σ]
OotOffset-st: 2/1/0/1 [4]
KicOffset-st: 2/1/0/1 [4]
DiffImageQuality-fgm: 0.50 [2/4]
DiffImageOverlap-fno: 0.50 [3/6]

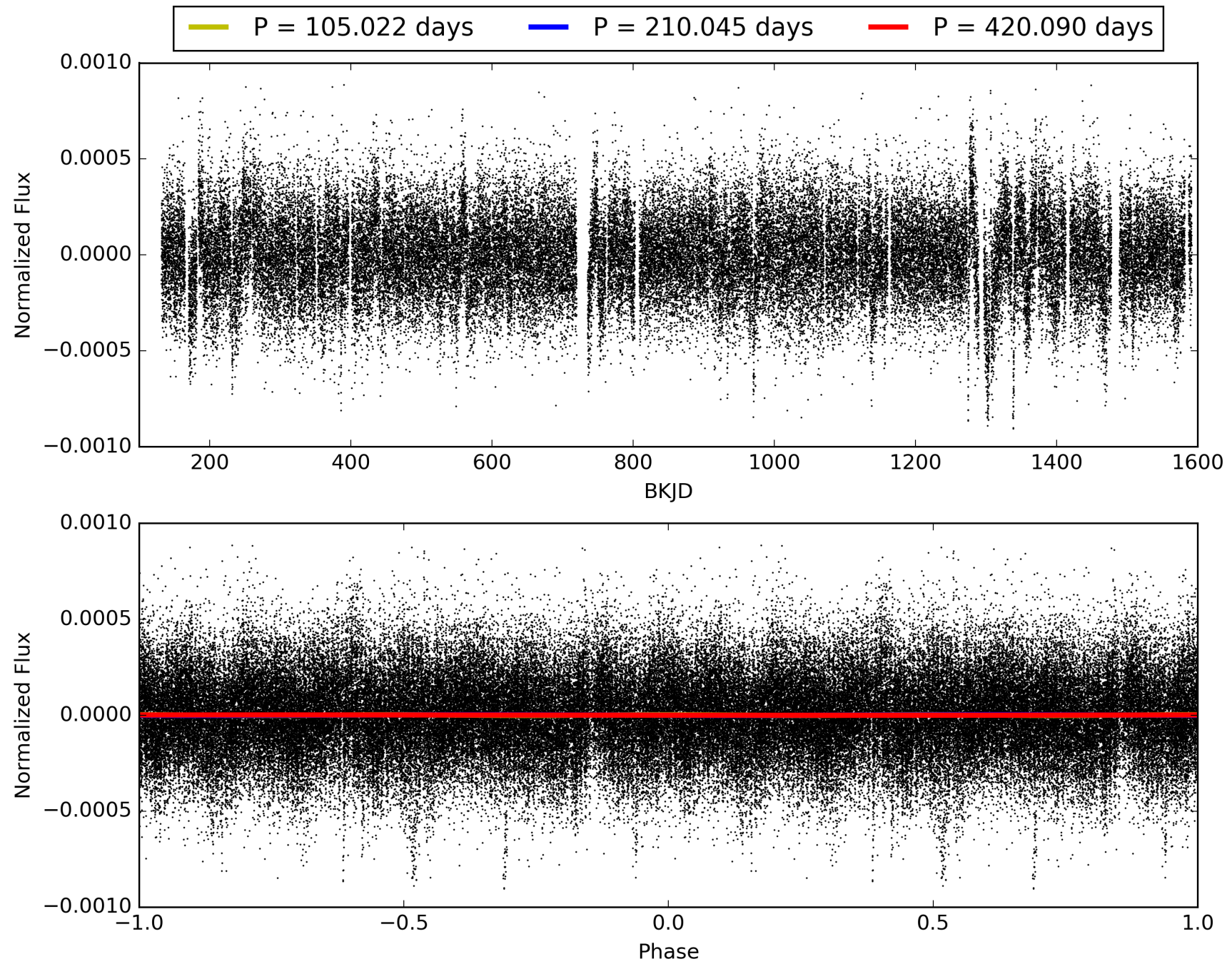
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 11:25:05 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 003955026-05, PDC Light Curves

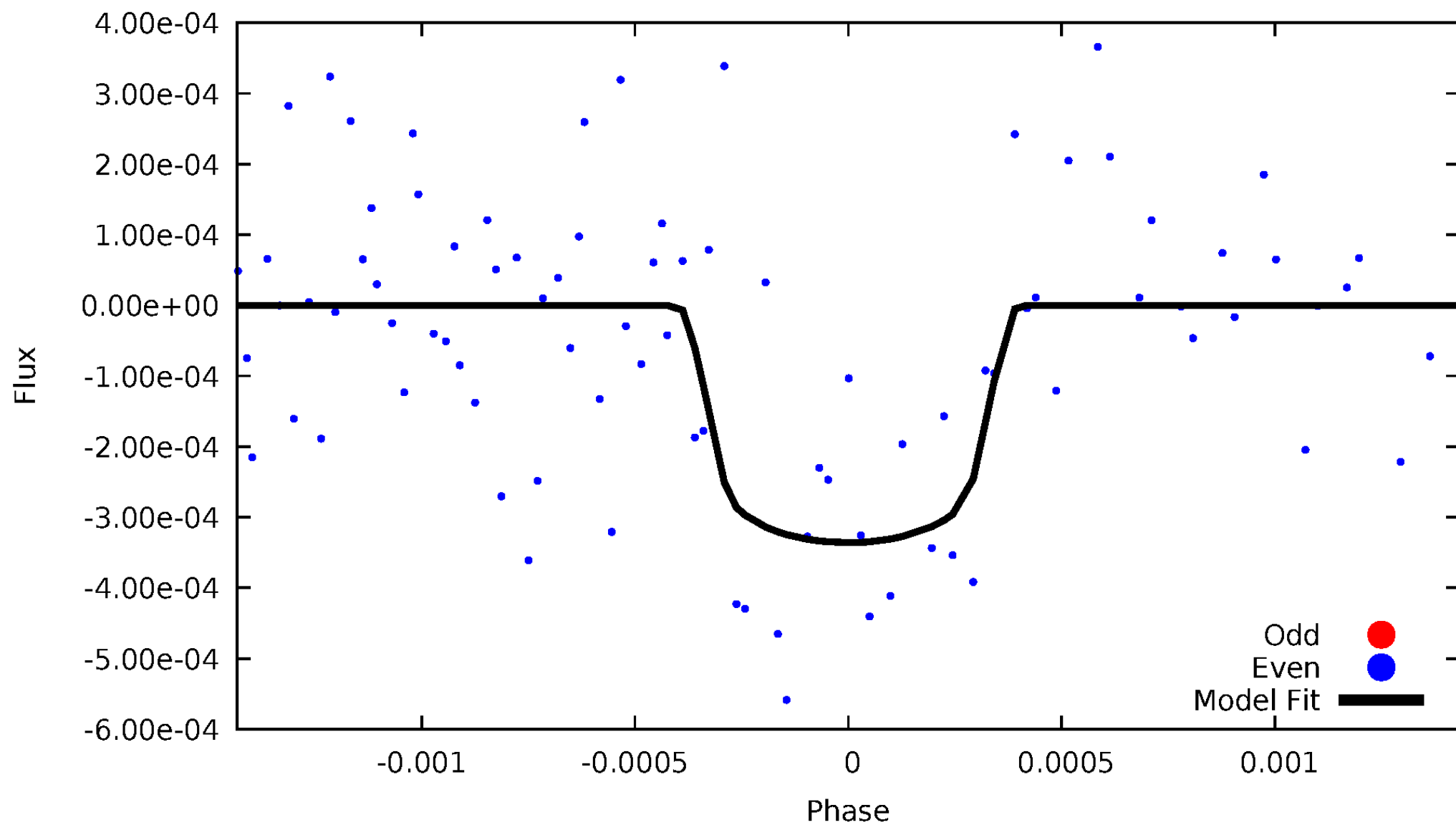


TCE 003955026-05



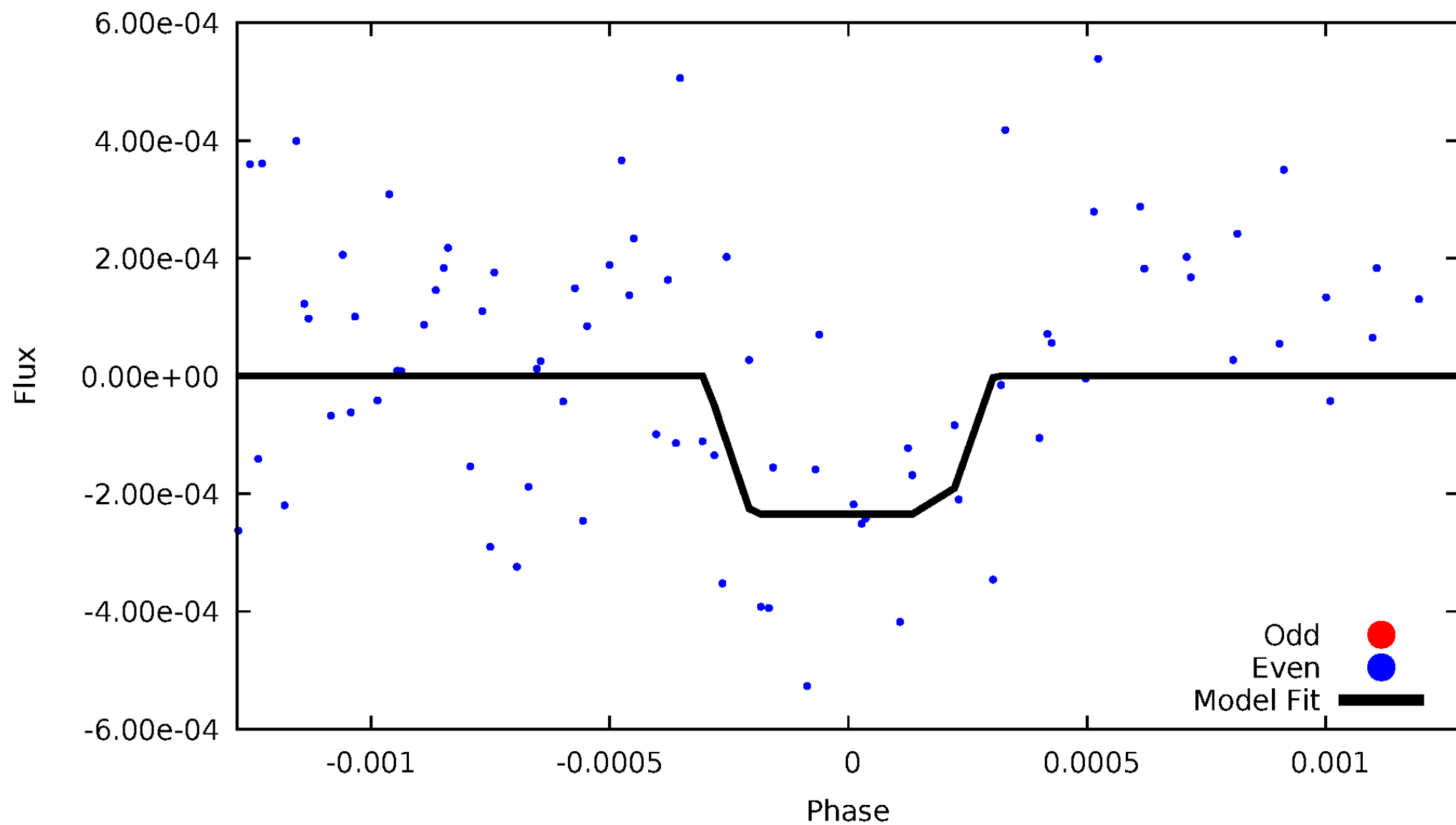
DV Odd/Even

TCE 003955026-05



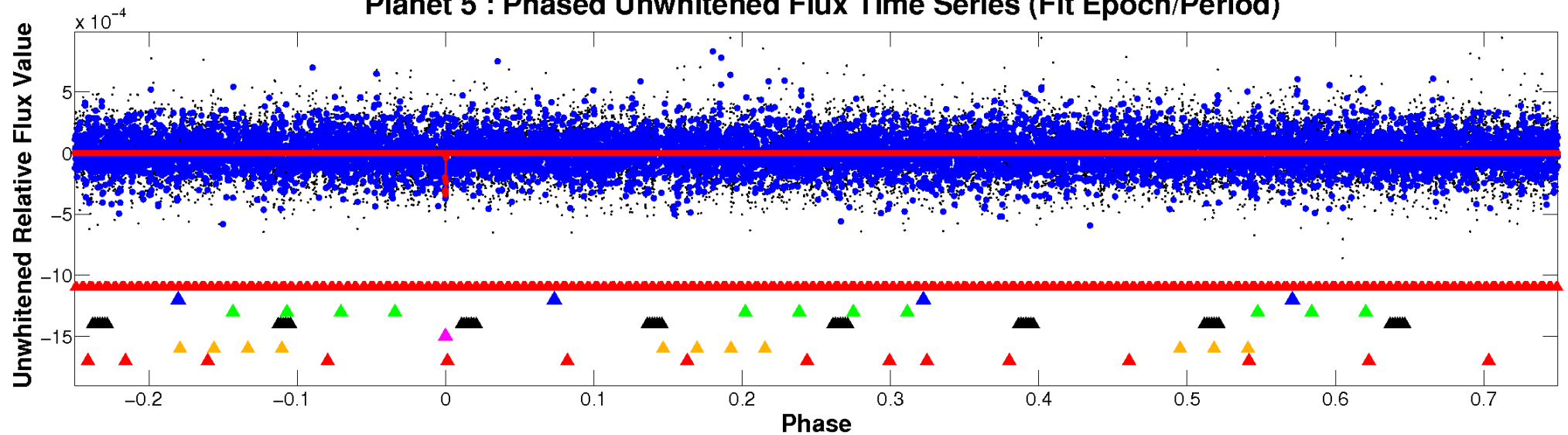
ALT Odd/Even

TCE 003955026-05

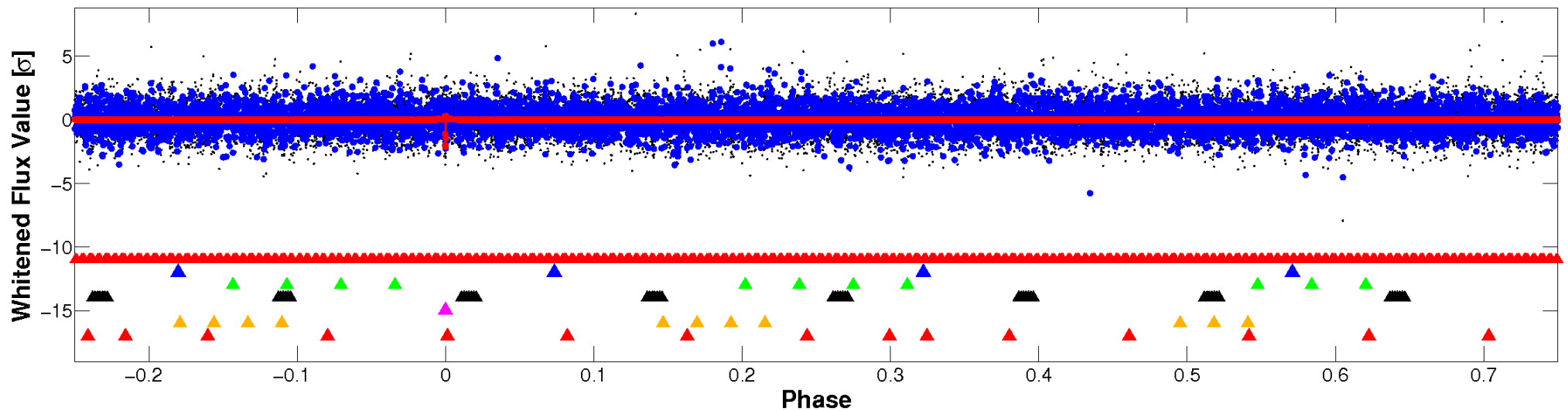


Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

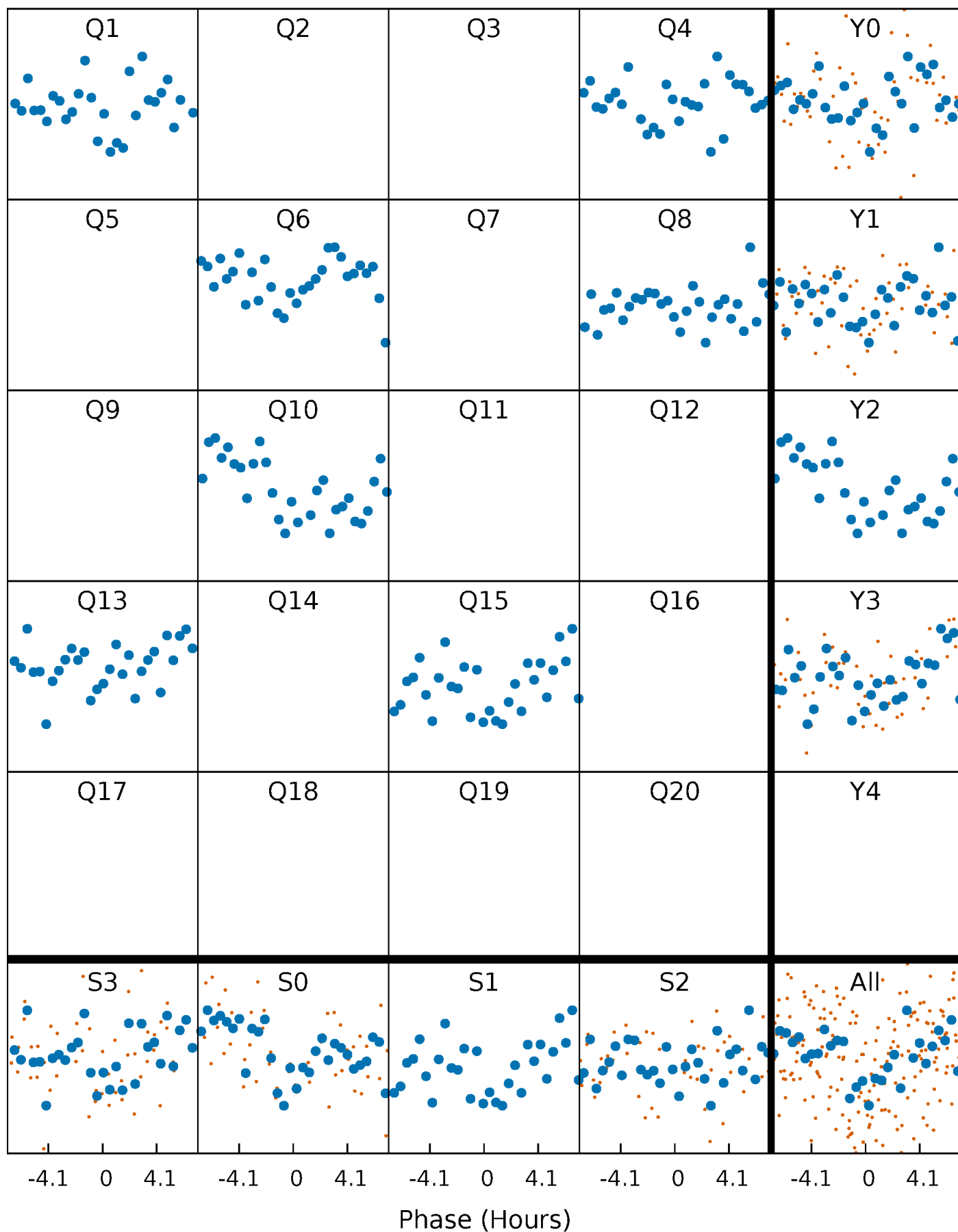


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



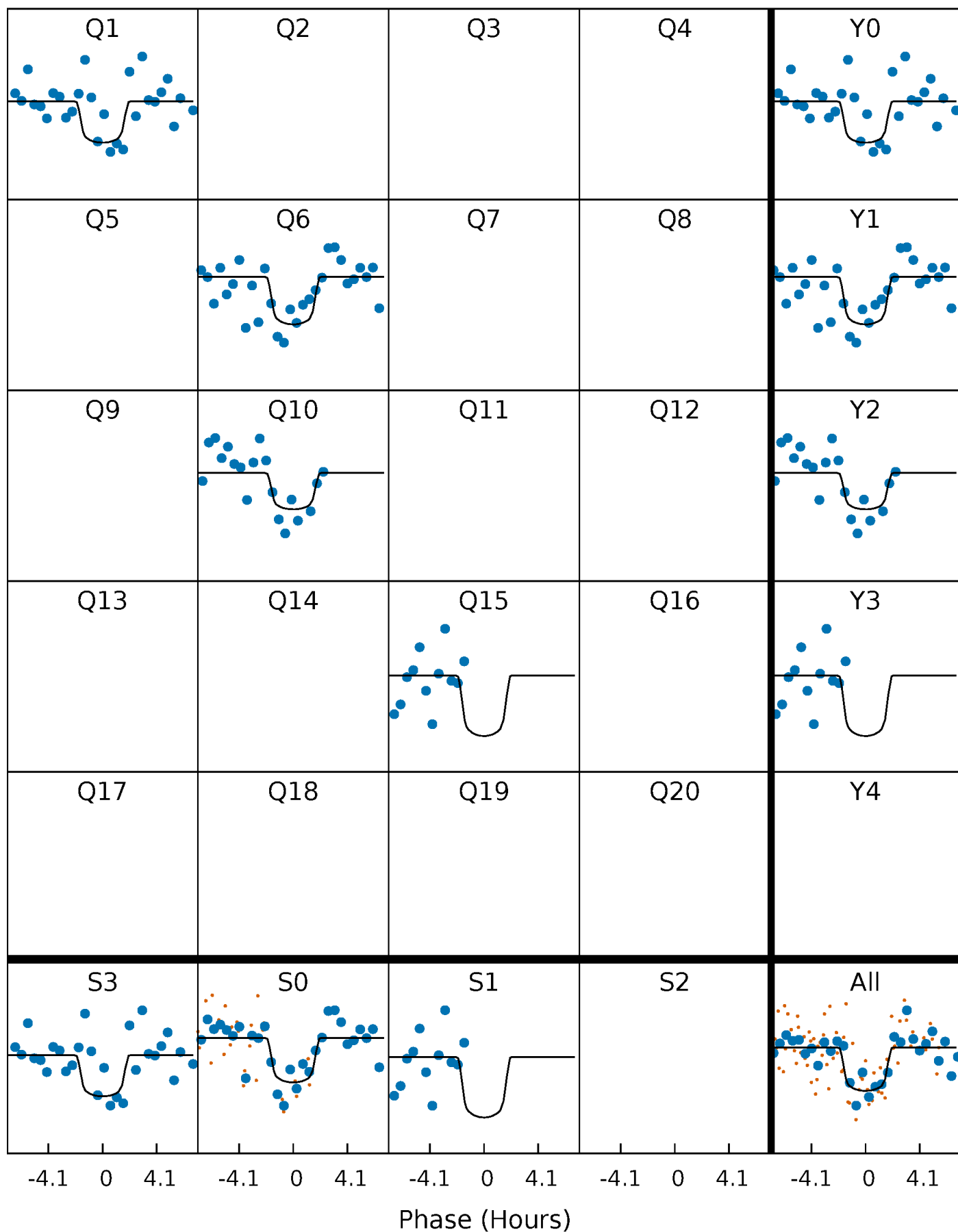
PDC Quarter-Phased Transit Curves

TCE 003955026-05 $P=210.044961$ Days $T_0=143.078264$ (BKJD)



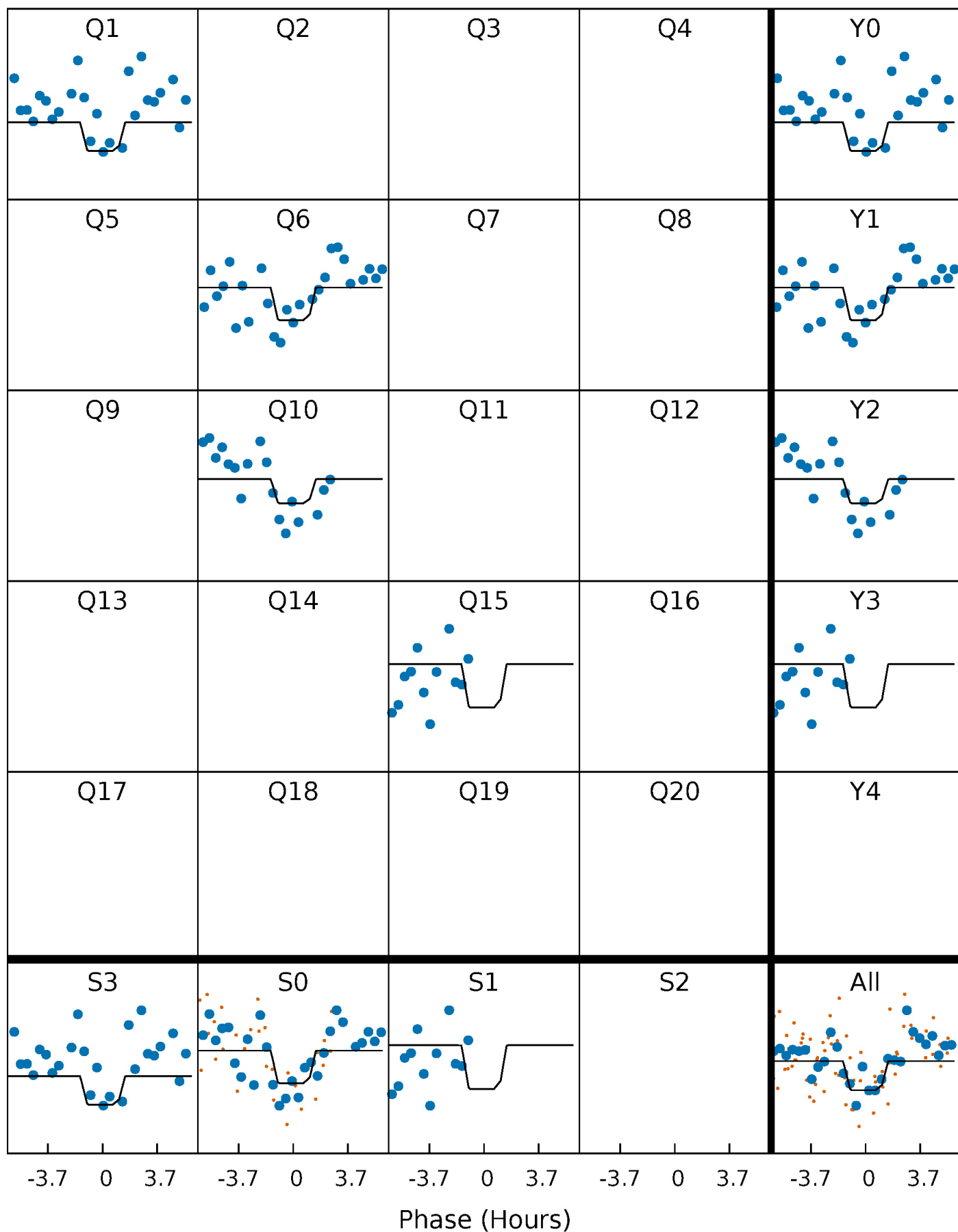
DV Quarter-Phased Transit Curves

TCE 003955026-05 $P=210.044961$ Days $T_0=143.078264$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

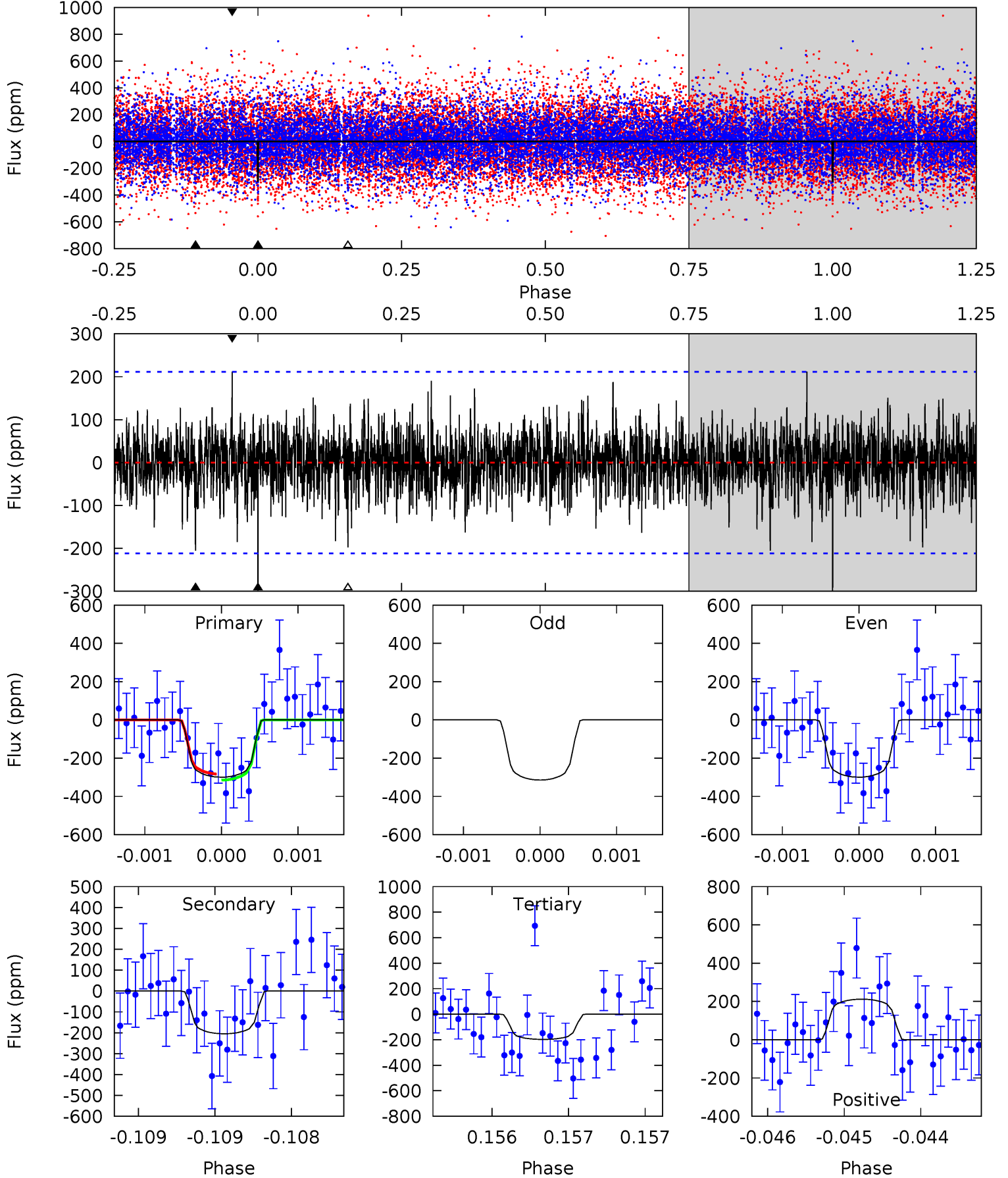
TCE 003955026-05 P=210.038646 Days $T_0=143.091215$ (BKJD)



DV Model-Shift Uniqueness Test

003955026-05, P = 210.044961 Days, E = 143.078264 Days

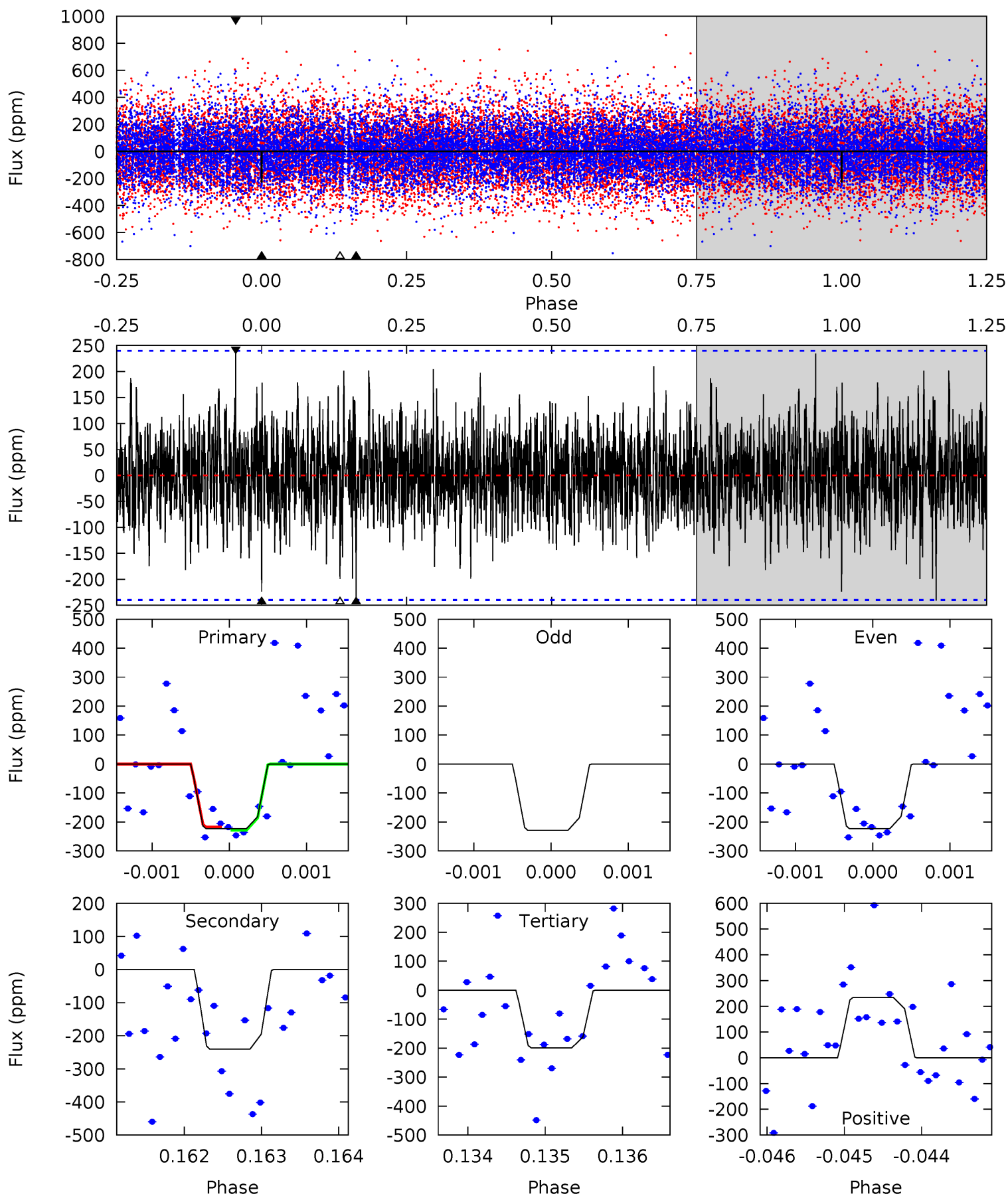
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.79	5.33	5.15	5.51	5.50	3.37	1.31	2.65	2.28	0.18	-0.18	0.23	1.00	0.41	0.41



Alt Model-Shift Uniqueness Test

003955026-05, P = 210.038646 Days, E = 143.091215 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.16	5.56	4.60	5.42	5.54	3.43	1.32	0.56	-0.26	0.96	0.14	0.07	1.02	0.49	0.12



Stellar Parameters For KIC 003955026

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6887^{+214}_{-285}	$4.055^{+0.246}_{-0.164}$	$-0.260^{+0.300}_{-0.300}$	$1.826^{+0.522}_{-0.522}$	$1.383^{+0.207}_{-0.253}$	$0.320^{+0.440}_{-0.151}$
	+3%/-4%	+6%/-4%	+115%/-115%	+29%/-29%	+15%/-18%	+137%/-47%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 003955026-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-205 ± 38	$4.01^{+2.69}_{-2.37}$	650^{+53}_{-56}	5684^{+3388}_{-1033}	4000^{+19253}_{-2466}
Alt.	-241 ± 43	$3.40^{+2.29}_{-2.07}$	647^{+55}_{-55}	6354^{+5836}_{-1381}	6973^{+38743}_{-4694}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

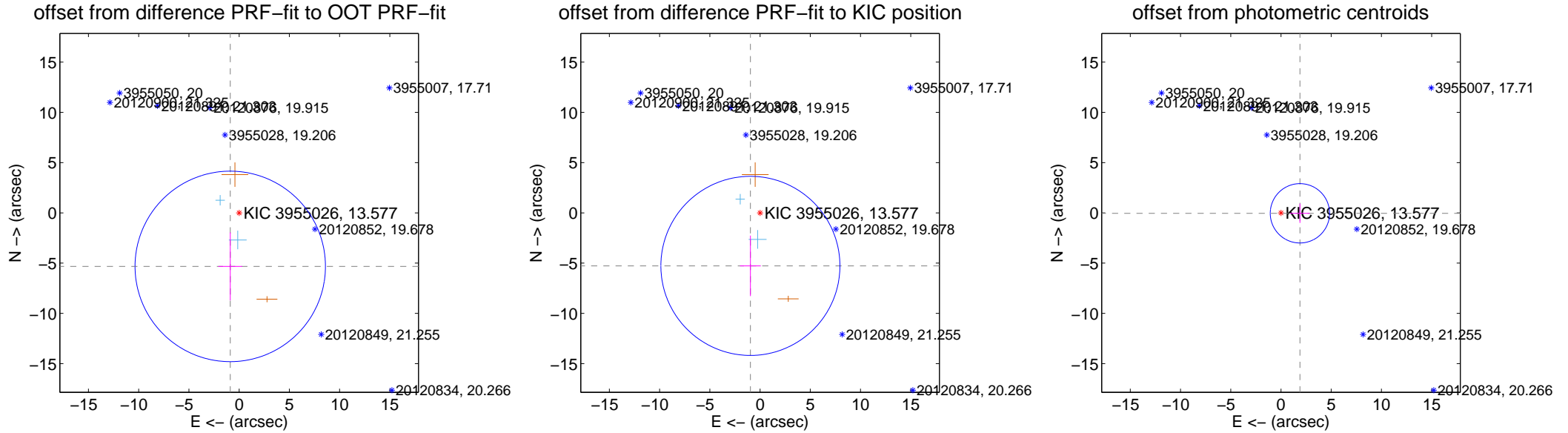
DV Centroid Data

Supplemental centroid analysis for 003955026-05. Kepler magnitude: 13.58. Transit SNR 8.02

There are 2 quarters with good PRF difference image offsets

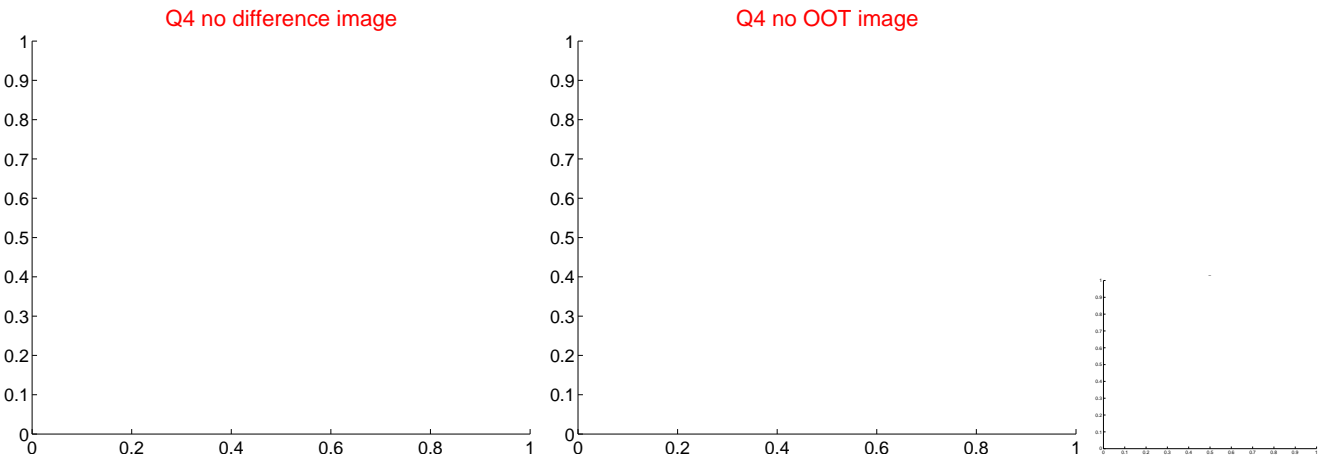
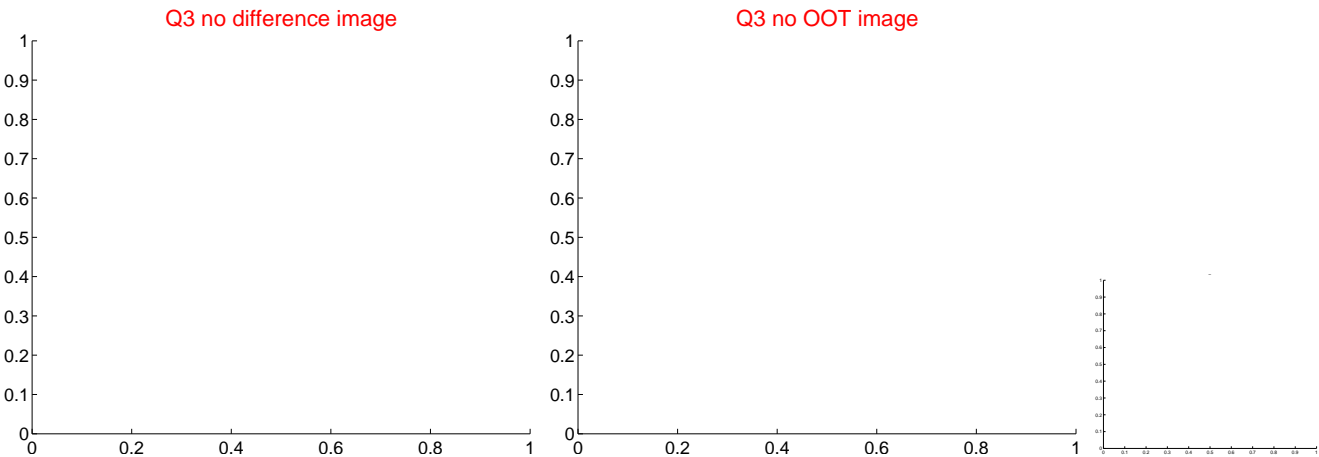
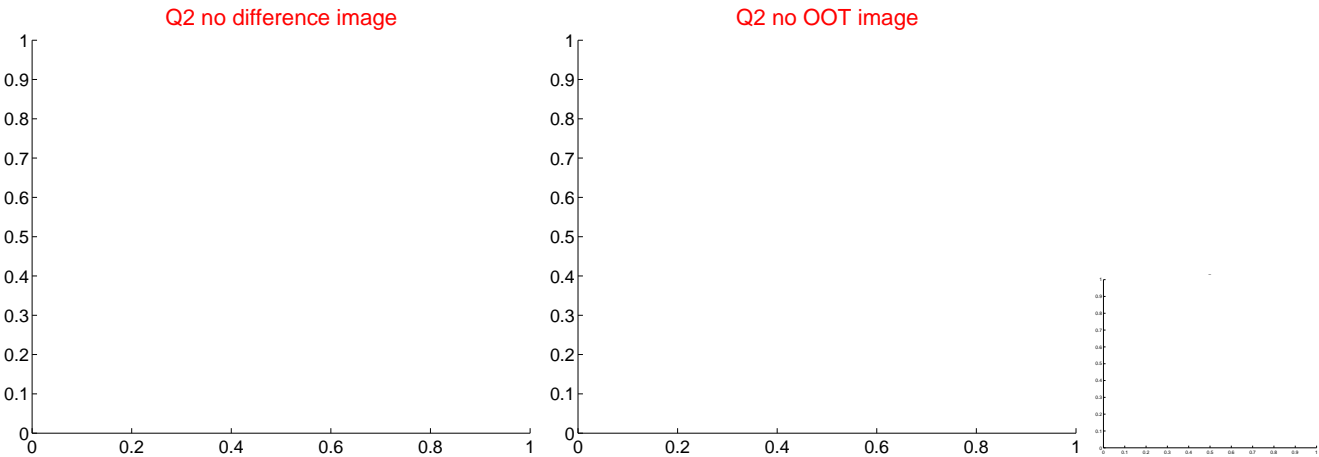
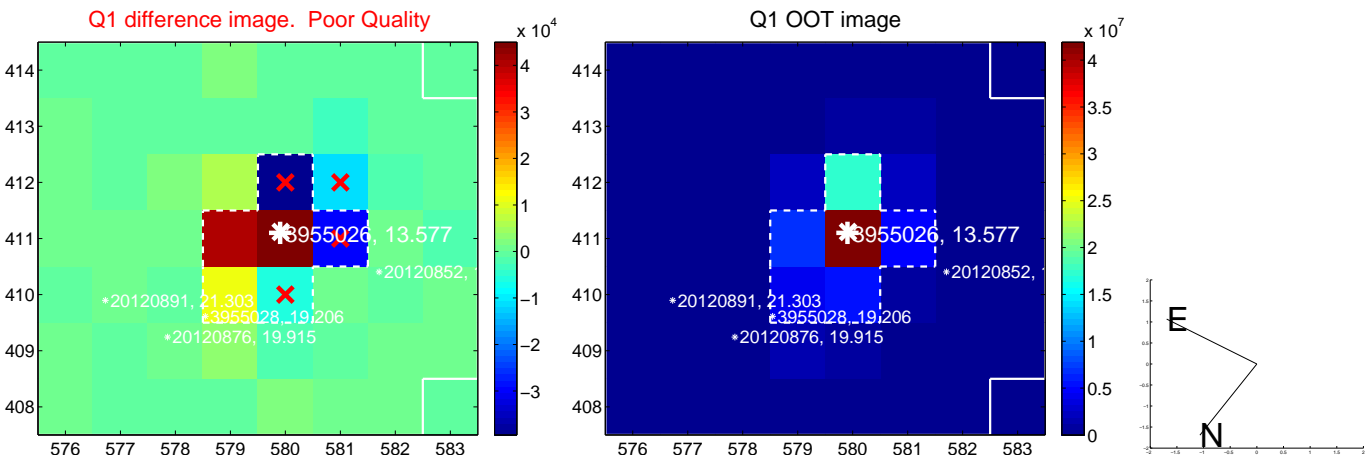
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.401 ± 3.160	1.71	0.886 ± 1.180	-5.328 ± 3.380
PRF-fit source offset from KIC position	5.362 ± 2.971	1.80	0.962 ± 1.036	-5.275 ± 3.014
photometric centroid source offset	1.89 ± 0.98	1.92	-1.89 ± 0.98	-0.04 ± 0.96



Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

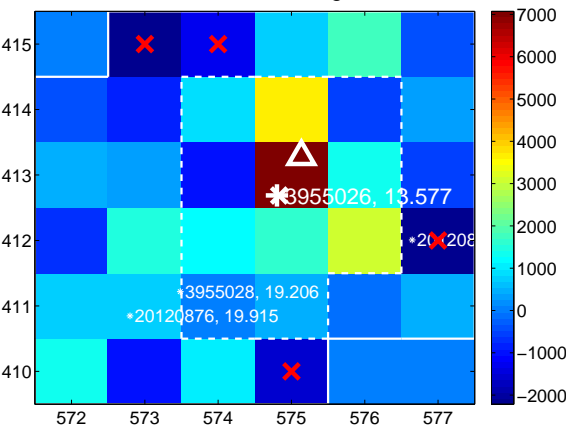
Q5 no difference image



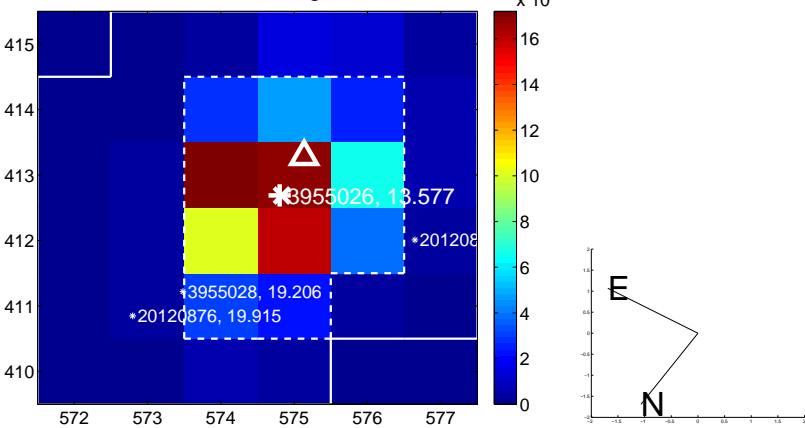
Q5 no OOT image



Q6 difference image



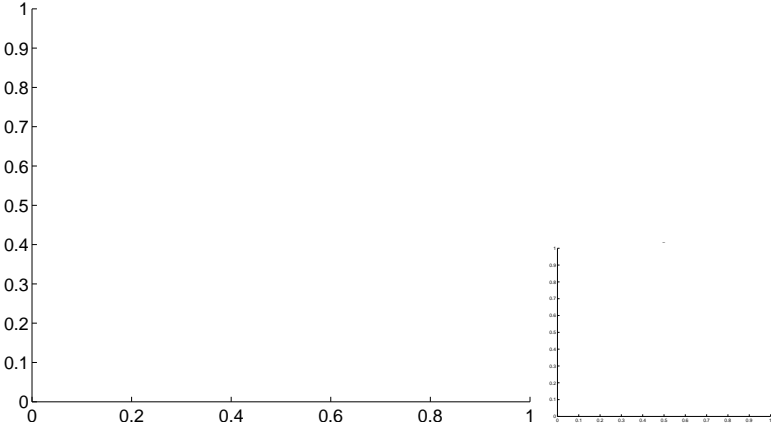
Q6 OOT image



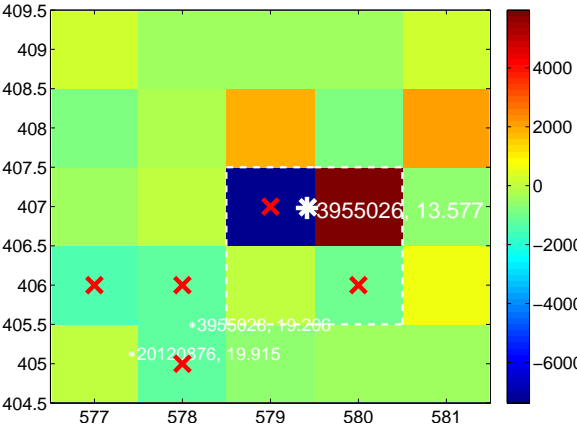
Q7 no difference image



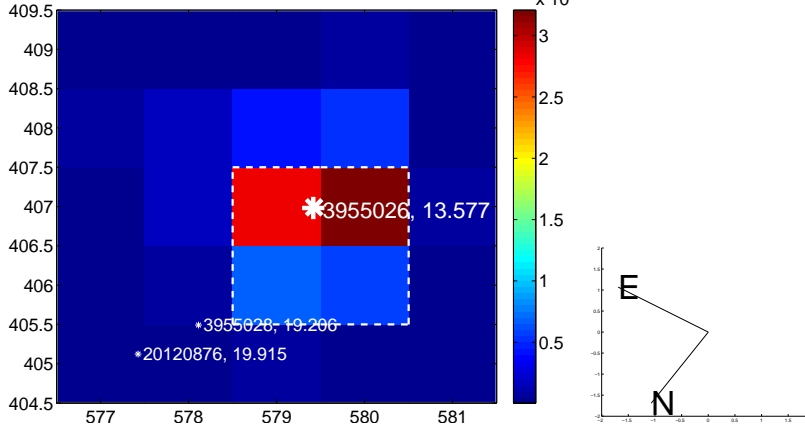
Q7 no OOT image



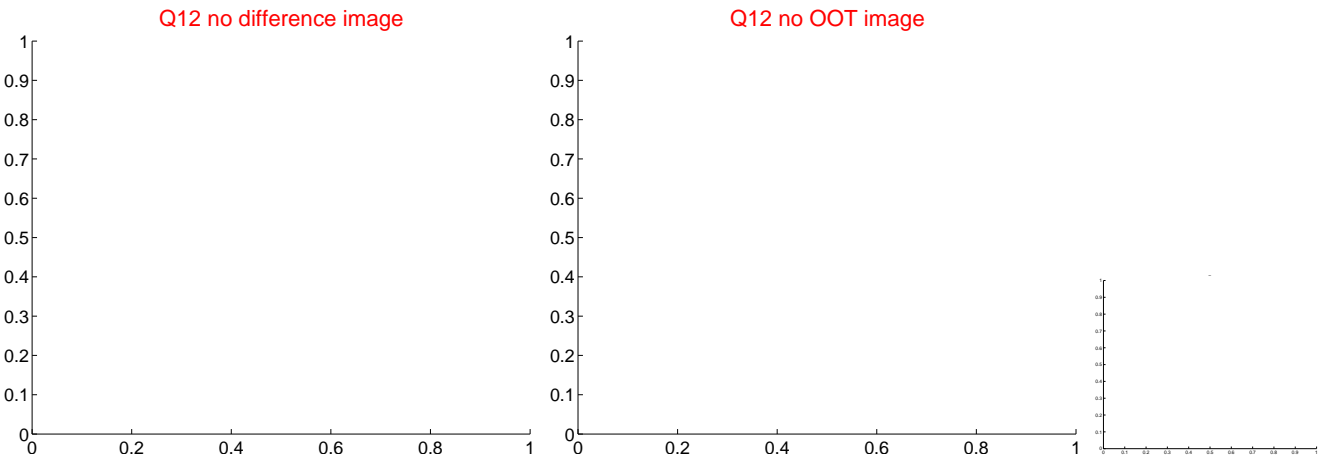
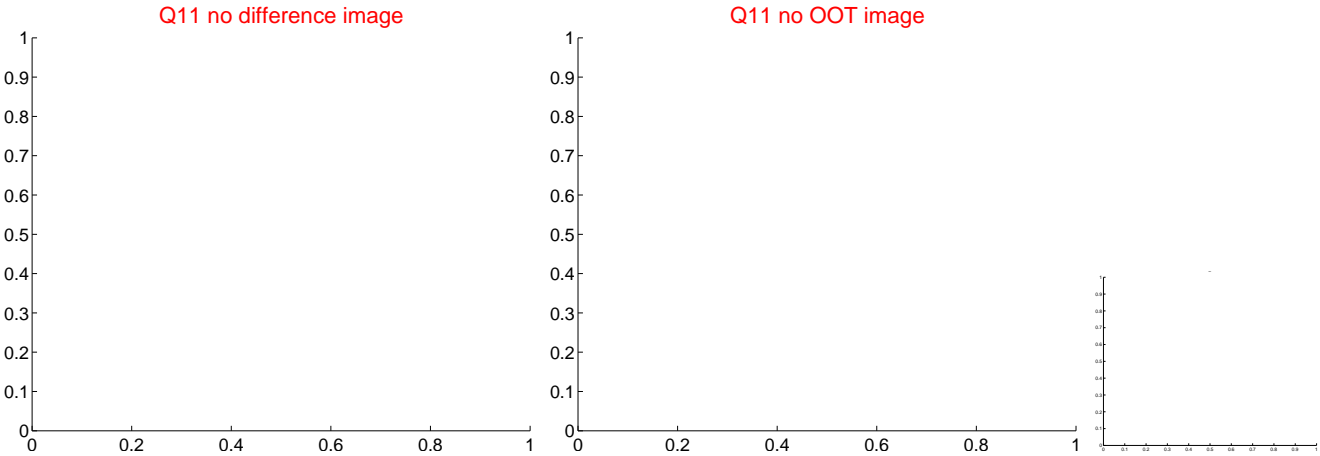
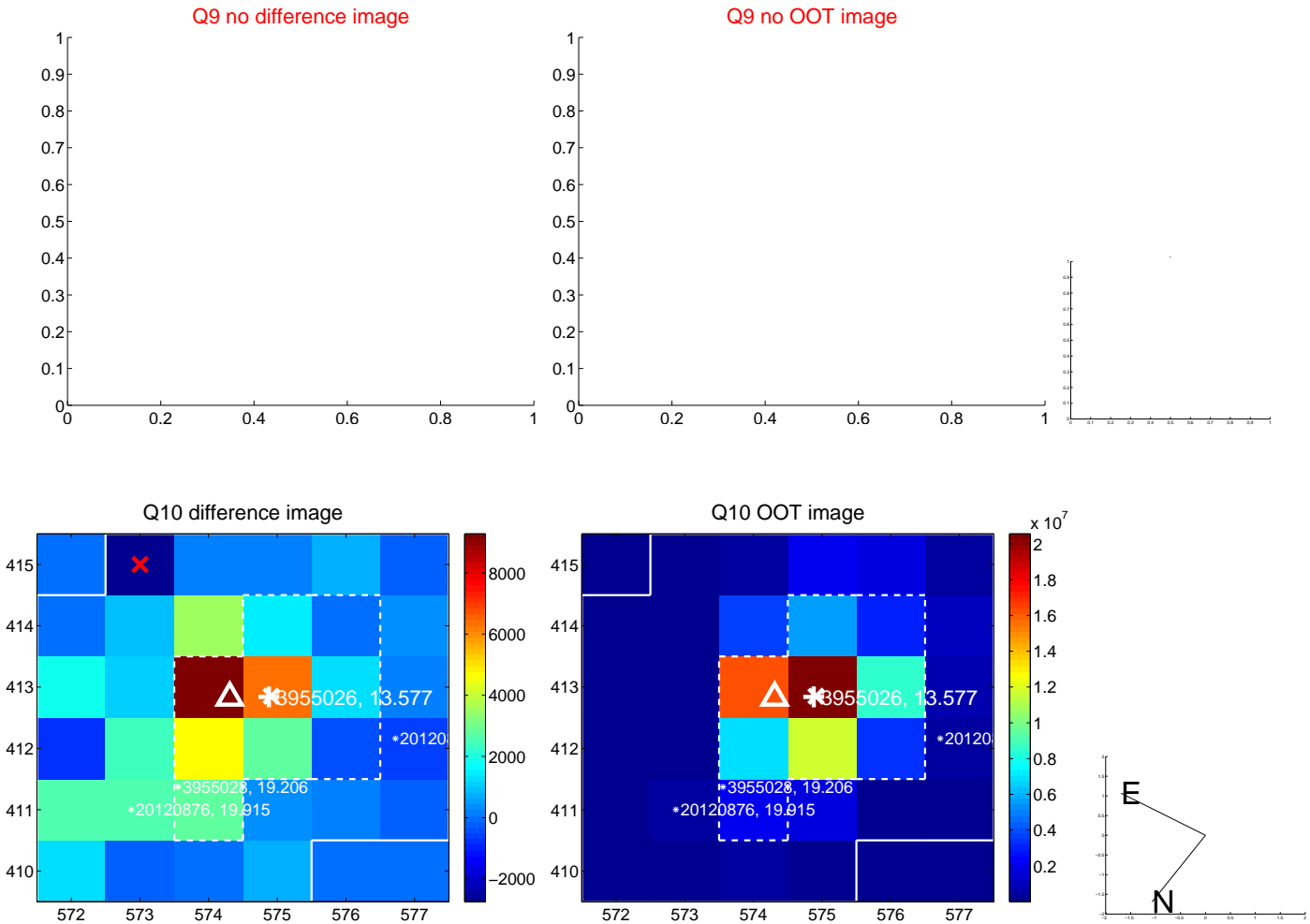
Q8 difference image. Poor Quality



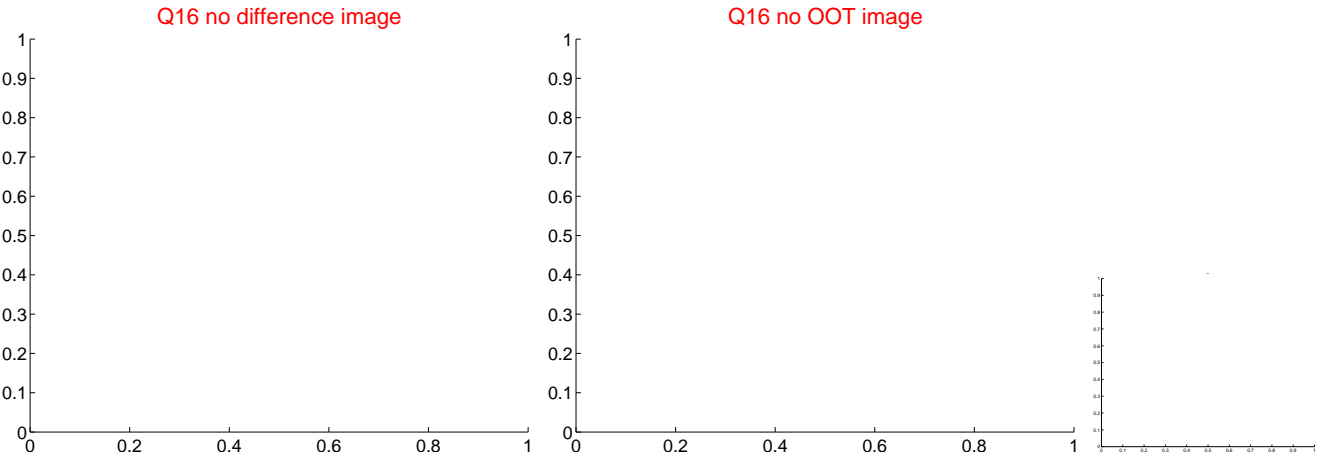
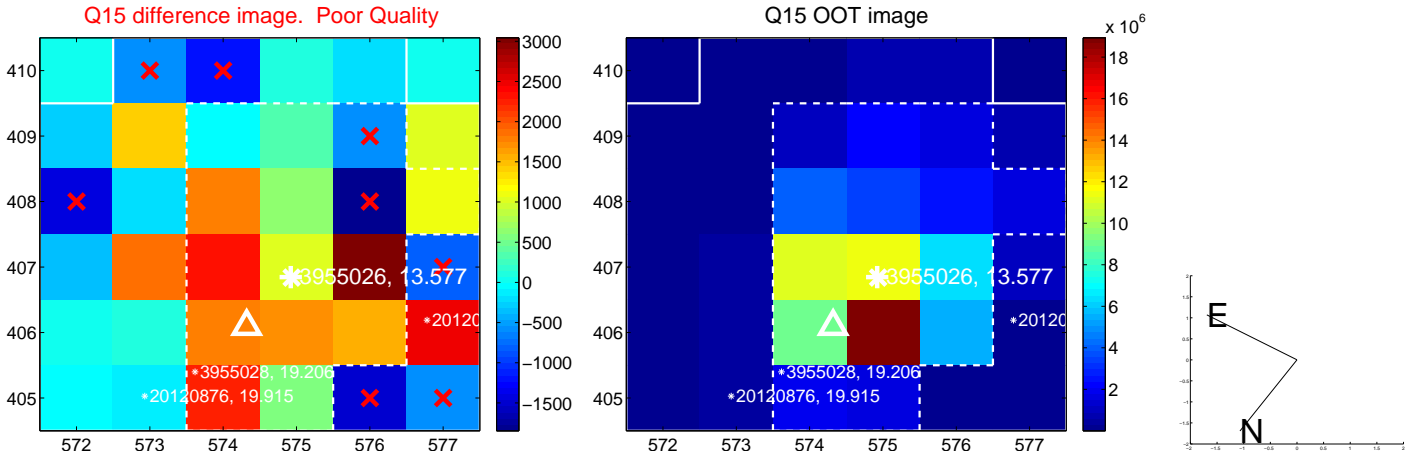
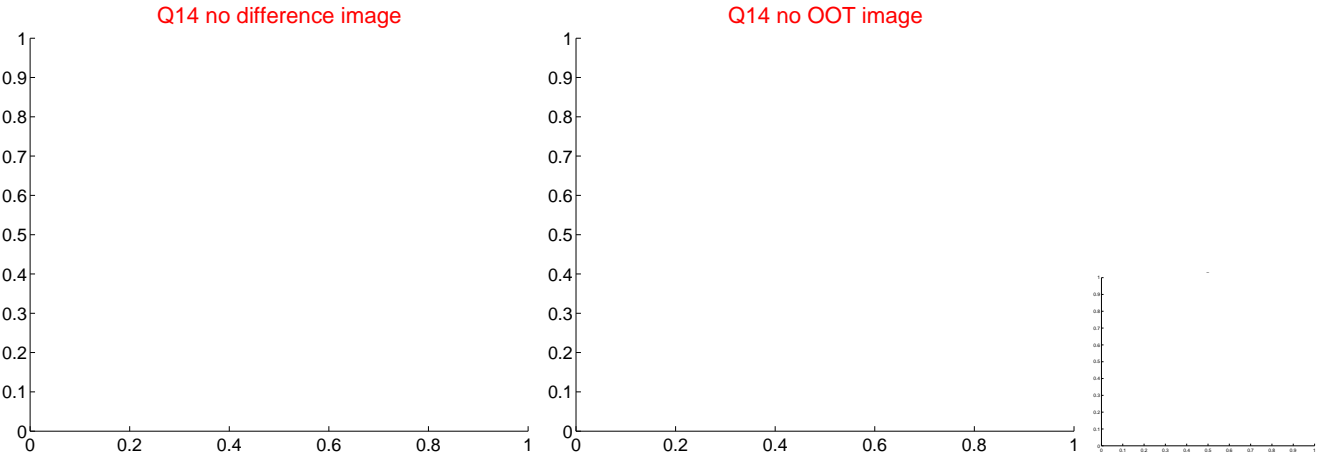
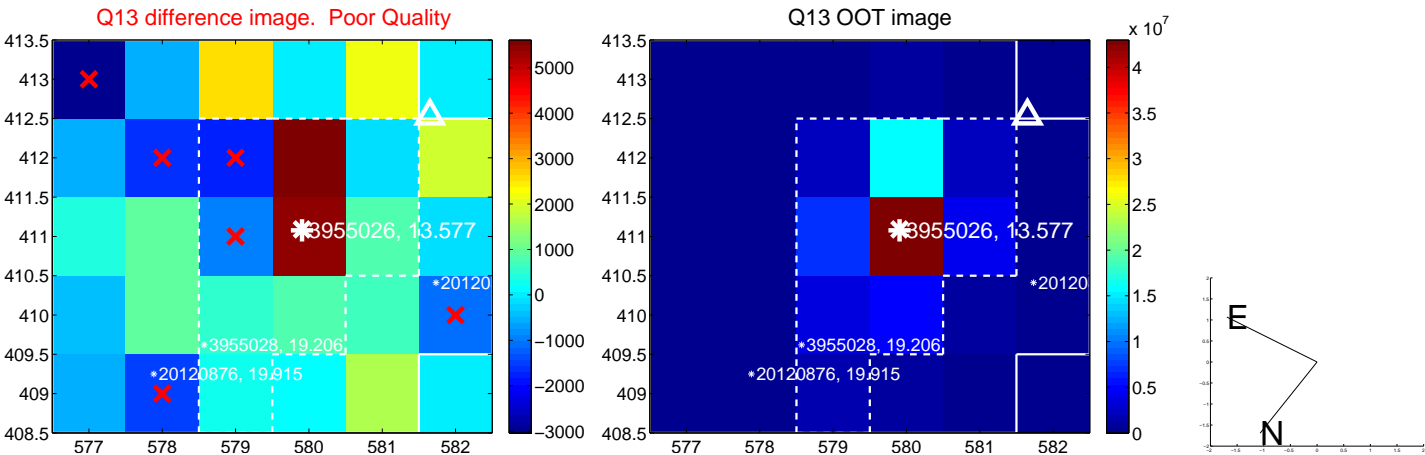
Q8 OOT image



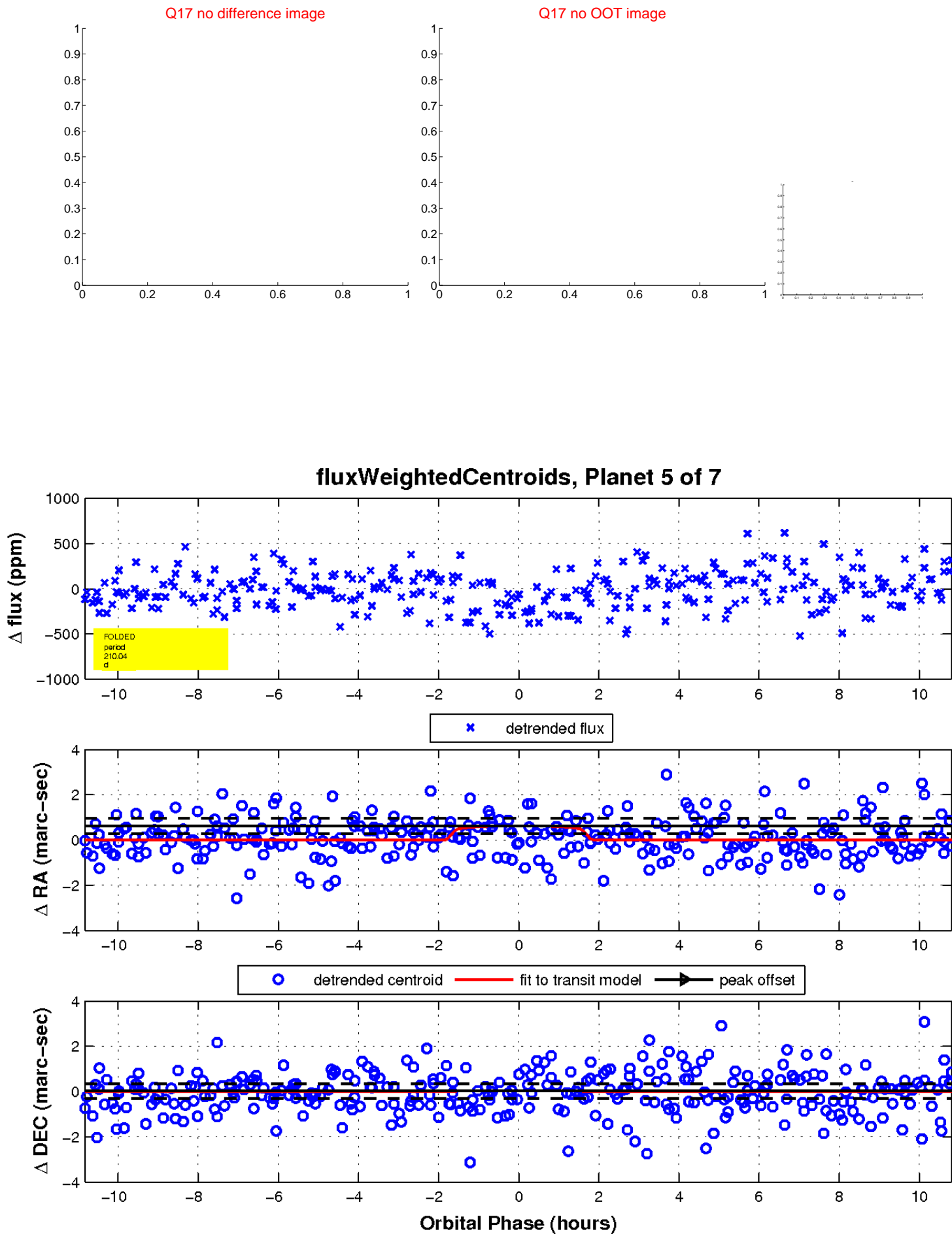
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

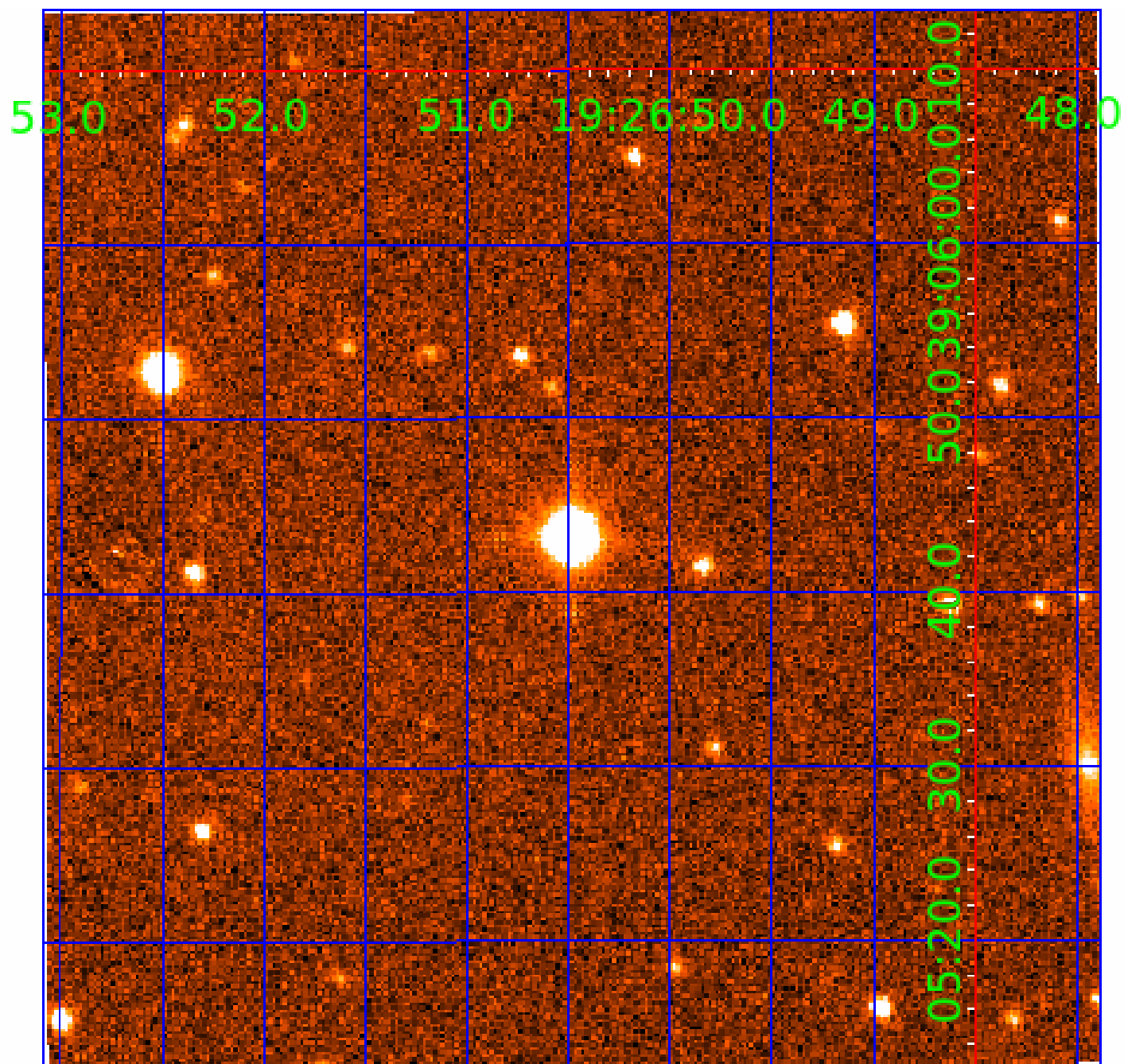


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 003955026

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
003955026-01	OBS	No	2.269846	132.925833	12.1	11.851	7.6	5.0	1.83	6887	0.64	4742.64
003955026-02	OBS	No	472.347430	158.501324	210.4	27.735	9.4	8.9	1.83	6887	3.06	3.85
003955026-03	OBS	No	137.480174	208.485675	400.2	2.120	7.8	8.5	1.83	6887	4.25	19.94
003955026-04	OBS	No	26.298968	145.354003	145.5	2.576	7.8	7.6	1.83	6887	2.48	180.90
003955026-05	OBS	No	210.044960	143.078264	335.9	3.609	7.5	8.0	1.83	6887	3.76	11.33
003955026-06	OBS	No	141.631780	173.900844	338.2	2.378	7.2	8.1	1.83	6887	3.92	19.16
003955026-07	OBS	No	96.535051	211.266209	302.1	2.559	7.4	7.9	1.83	6887	3.53	31.95

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003955026-01	OBS	FP	0.00	1	0	0	0	LPP_DV
003955026-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
003955026-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
003955026-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
003955026-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
003955026-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS—HALO_GHOST
003955026-07	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

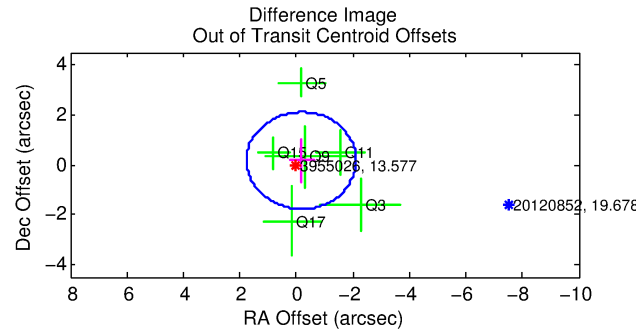
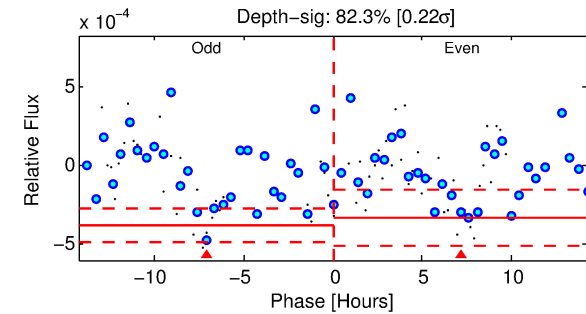
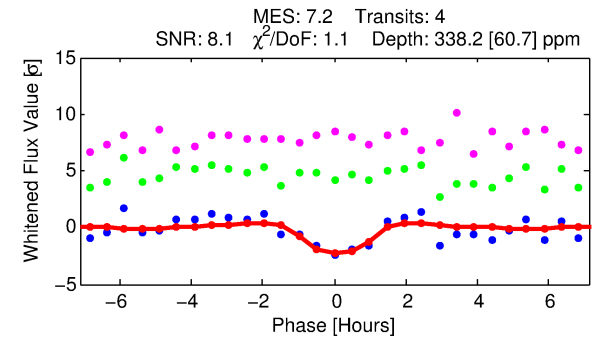
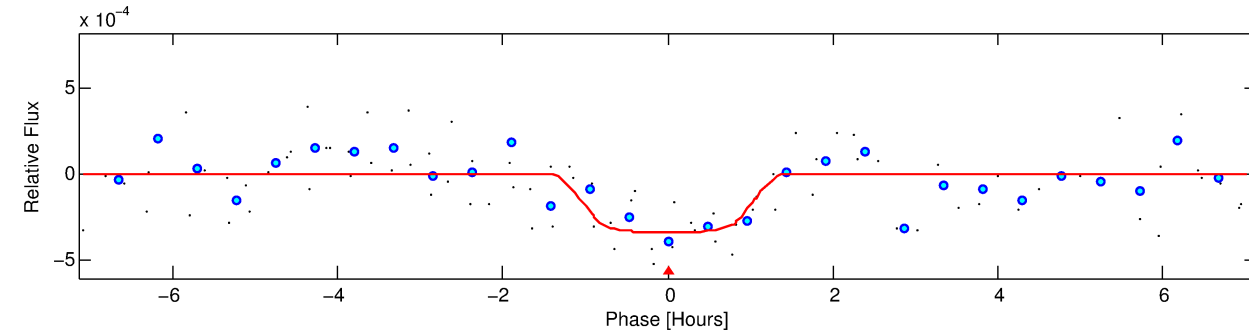
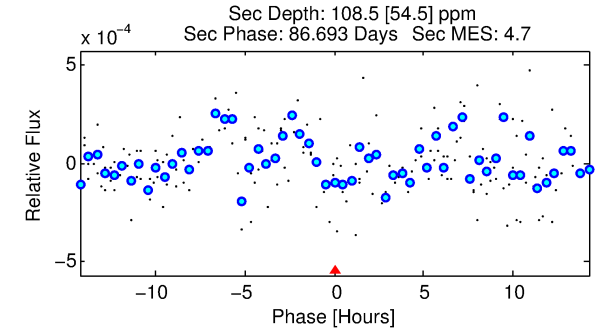
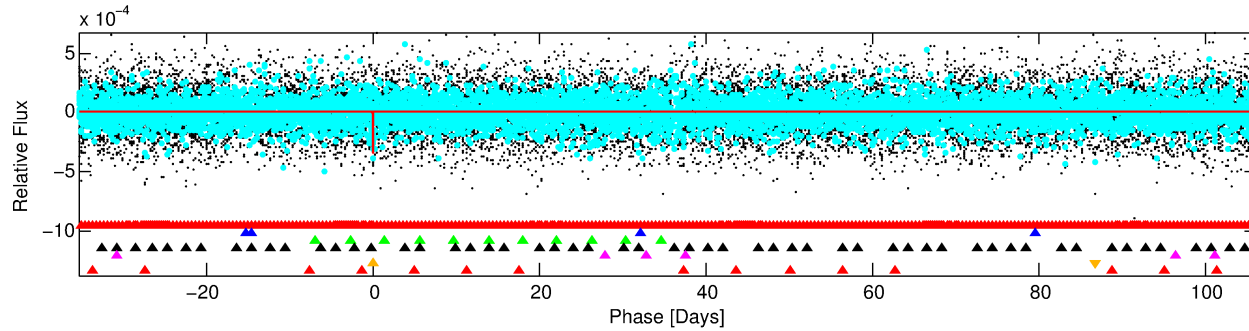
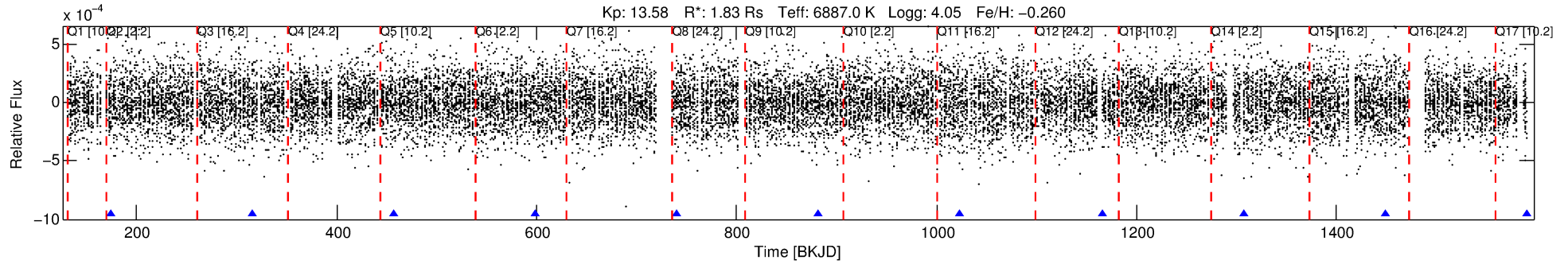
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003955026-06

No Significant Match Found

DV One-Page Summary

KIC: 3955026 Candidate: 6 of 7 Period: 141.632 d



DV Fit Results:

Period = 141.63178 [0.00158] d
Epoch = 173.9008 [0.0092] BKJD
Rp/R* = 0.0197 [0.0133]
a/R* = 214.36 [853.01]
b = 0.90 [0.81]
Seff = 19.16 [8.70]
Teq = 534 [61] K
Rp = 3.92 [2.88] Re
a = 0.5922 [0.1589] AU
Ag = 1361.51 [2049.05] [0.66σ]
Teffp = 5011 [1821] K [2.46σ]

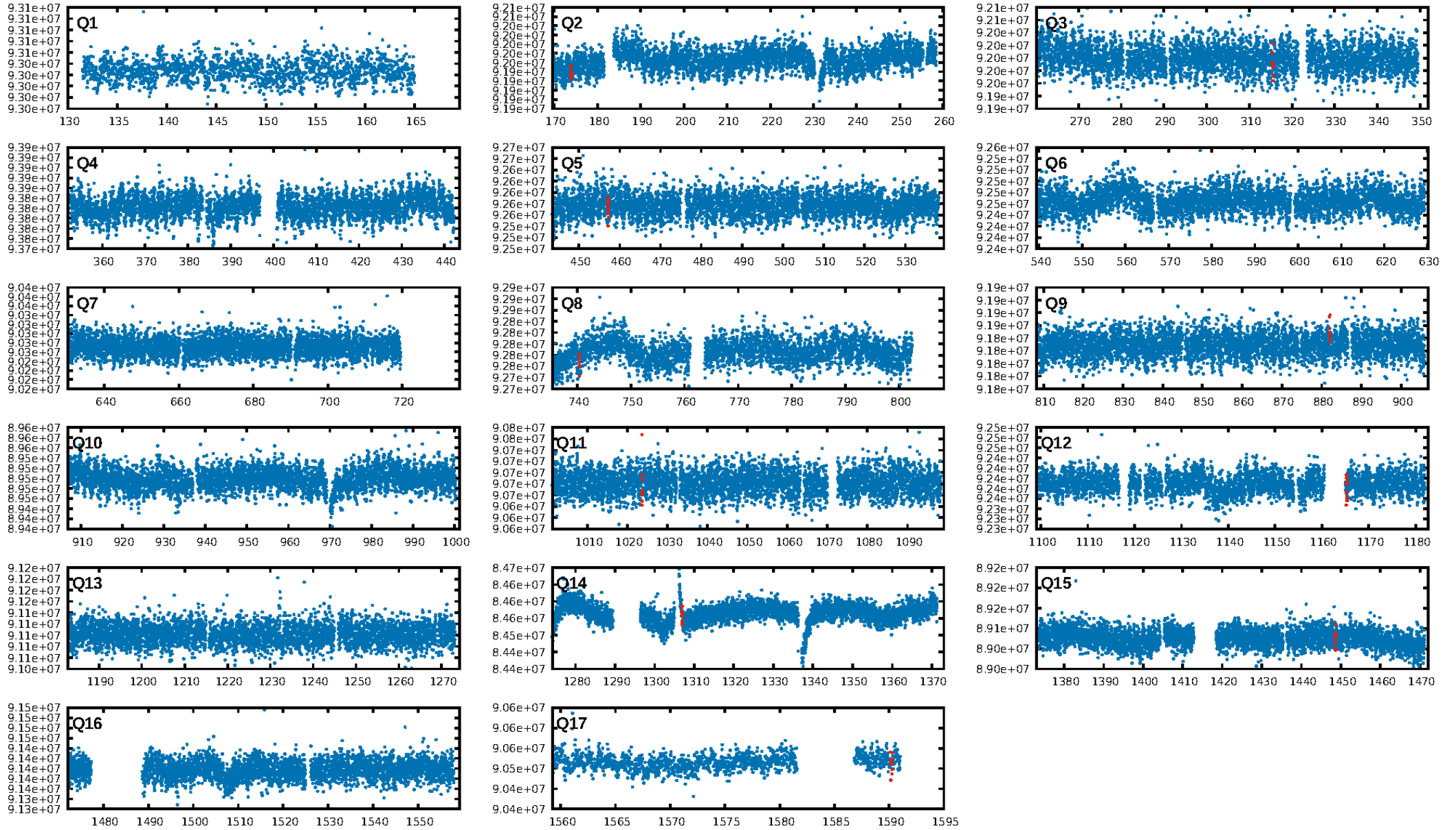
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [31.27σ]
LongPeriod-sig: 100.0% [379.85σ]
ModelChiSquare2-sig: 70.9%
ModelChiSquareGof-sig: 97.0%
Bootstrap-pfa: 2.12e-08
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.1368
Centroid-sig: 61.2%
Centroid-so: 0.704 arcsec [0.66σ]
OotOffset-rm: 0.240 arcsec [0.37σ]
KicOffset-rm: 0.263 arcsec [0.43σ]
OotOffset-st: 0/3/0/3 [6]
KicOffset-st: 0/3/0/3 [6]
DiffImageQuality-fgm: 0.33 [2/6]
DiffImageOverlap-fno: 0.44 [4/9]

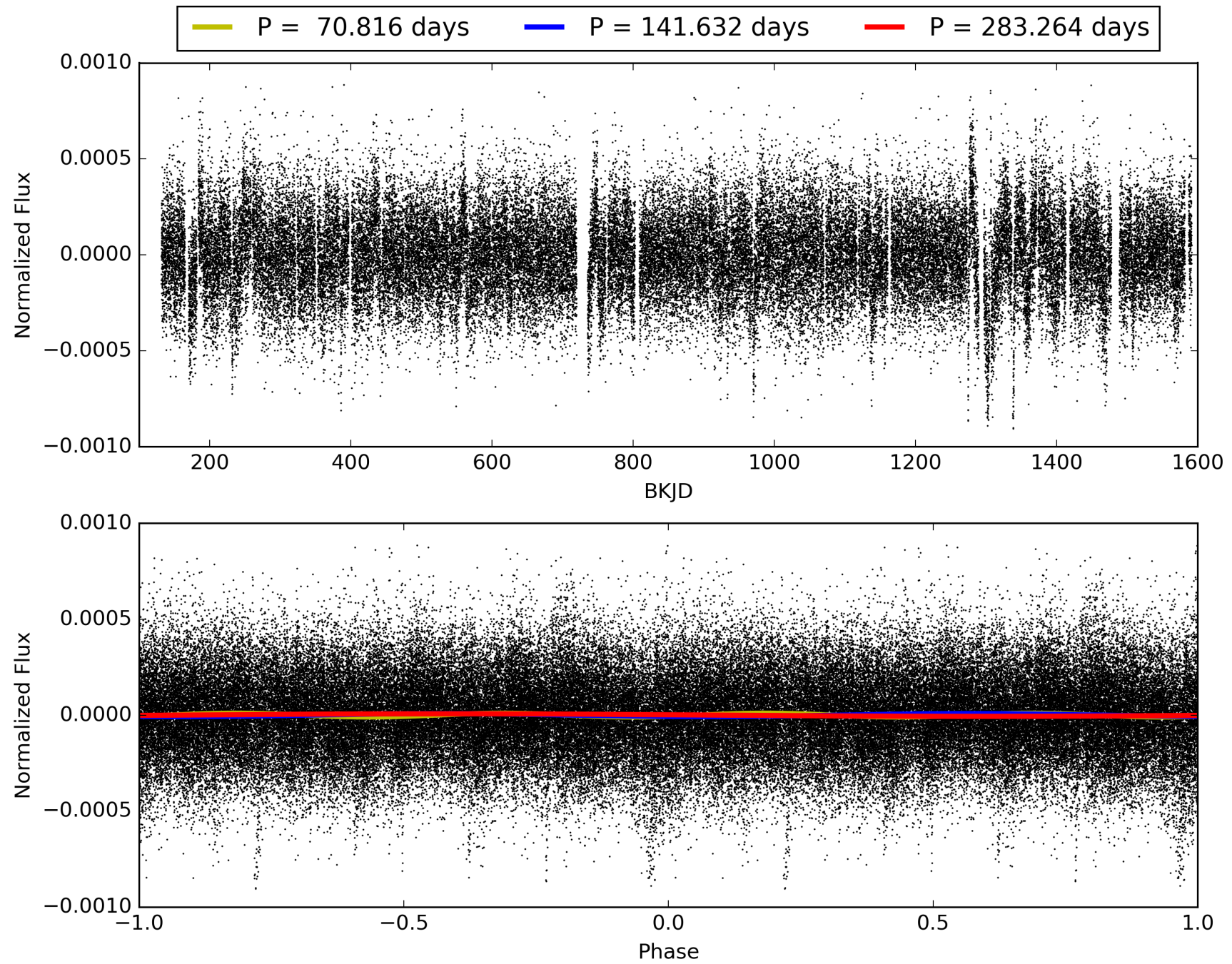
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 11:25:11 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 003955026-06, PDC Light Curves

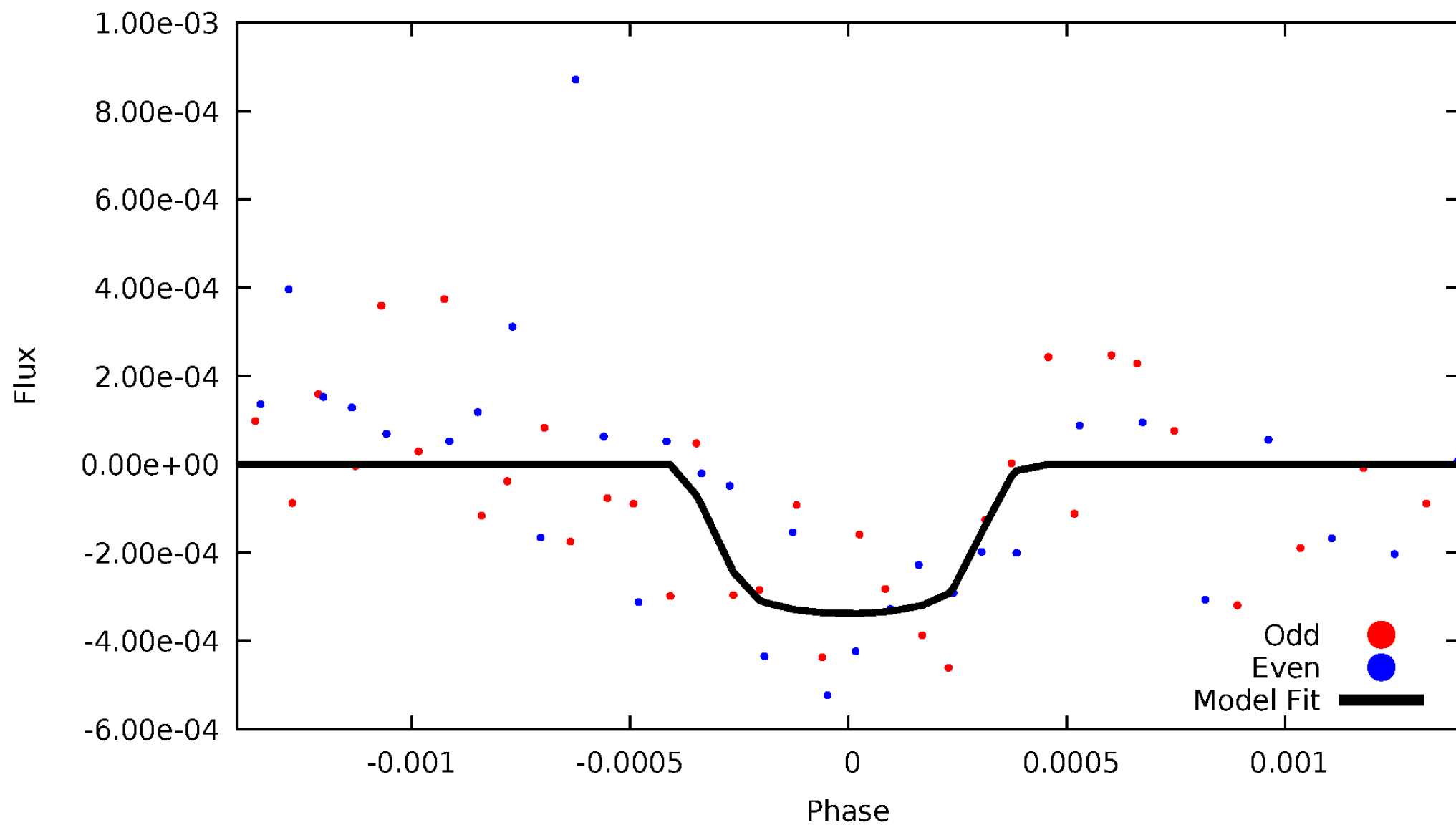


TCE 003955026-06



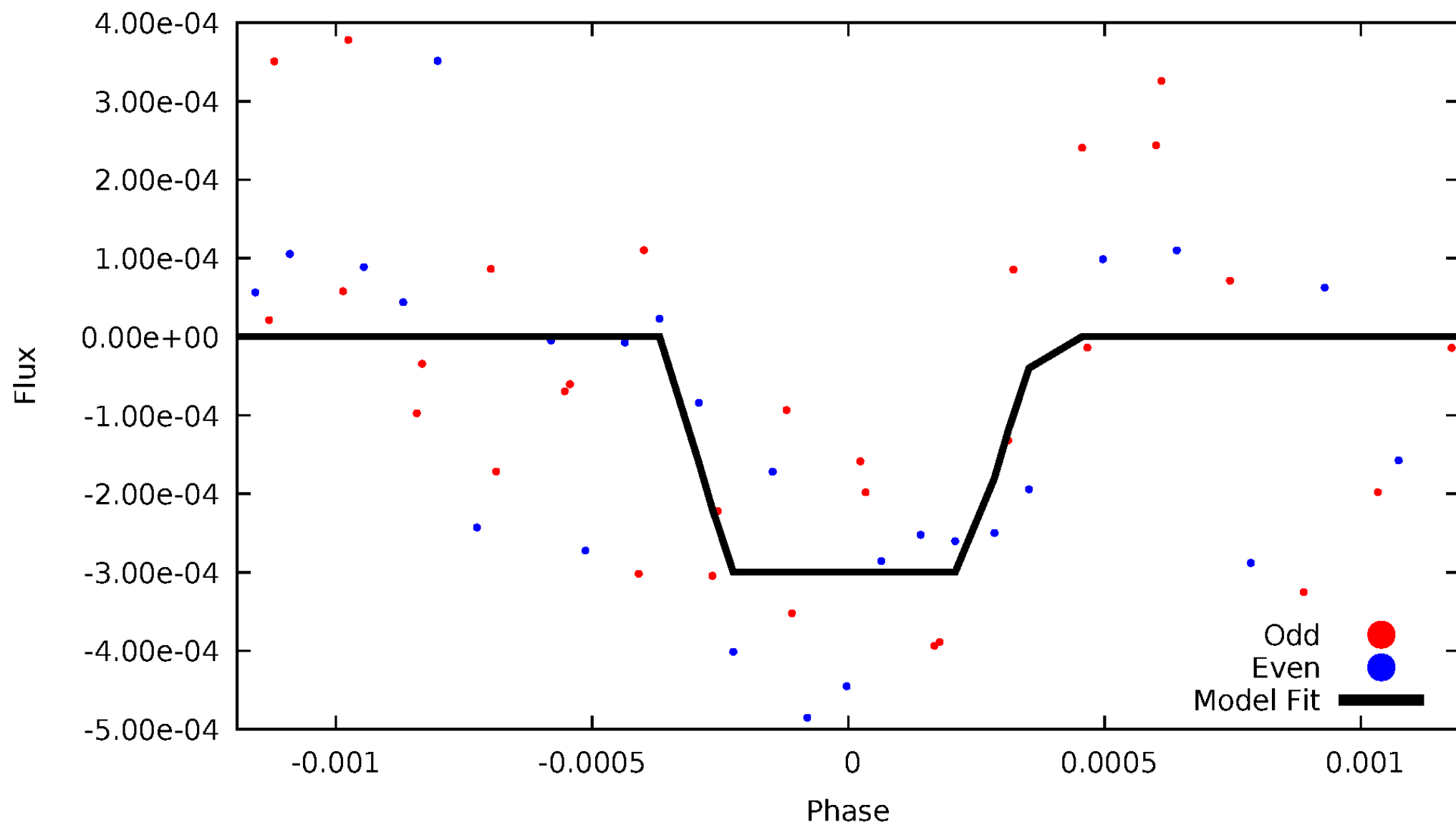
DV Odd/Even

TCE 003955026-06



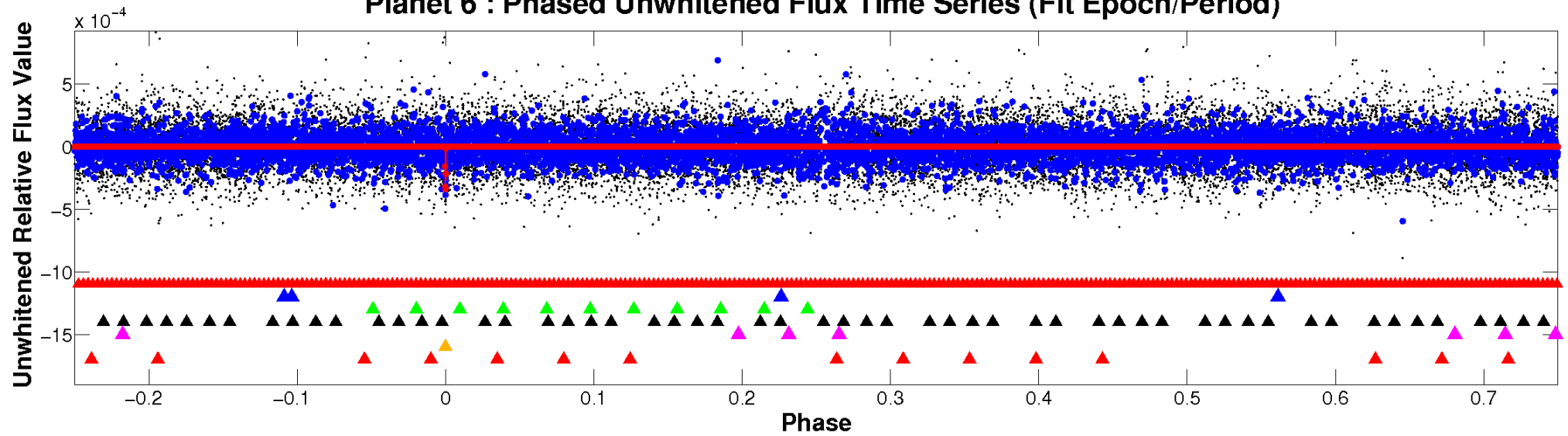
ALT Odd/Even

TCE 003955026-06

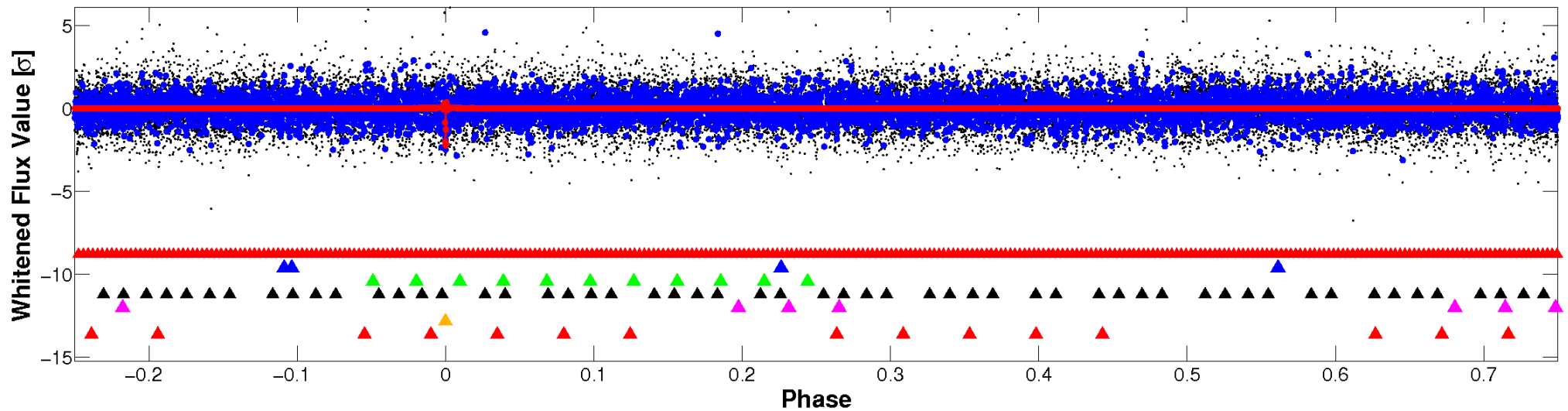


Non-Whitened Vs. Whitened Light Curve

Planet 6 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

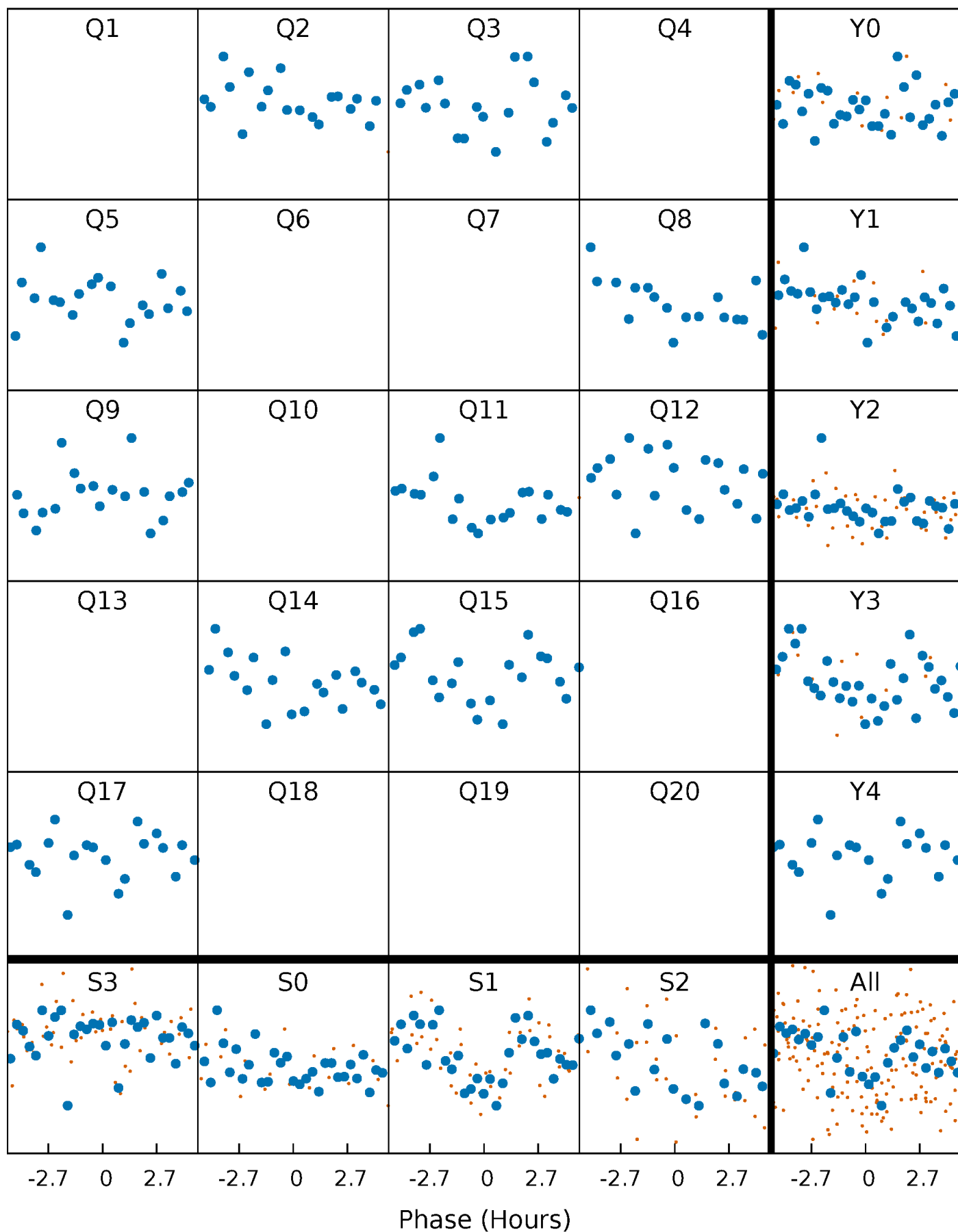


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



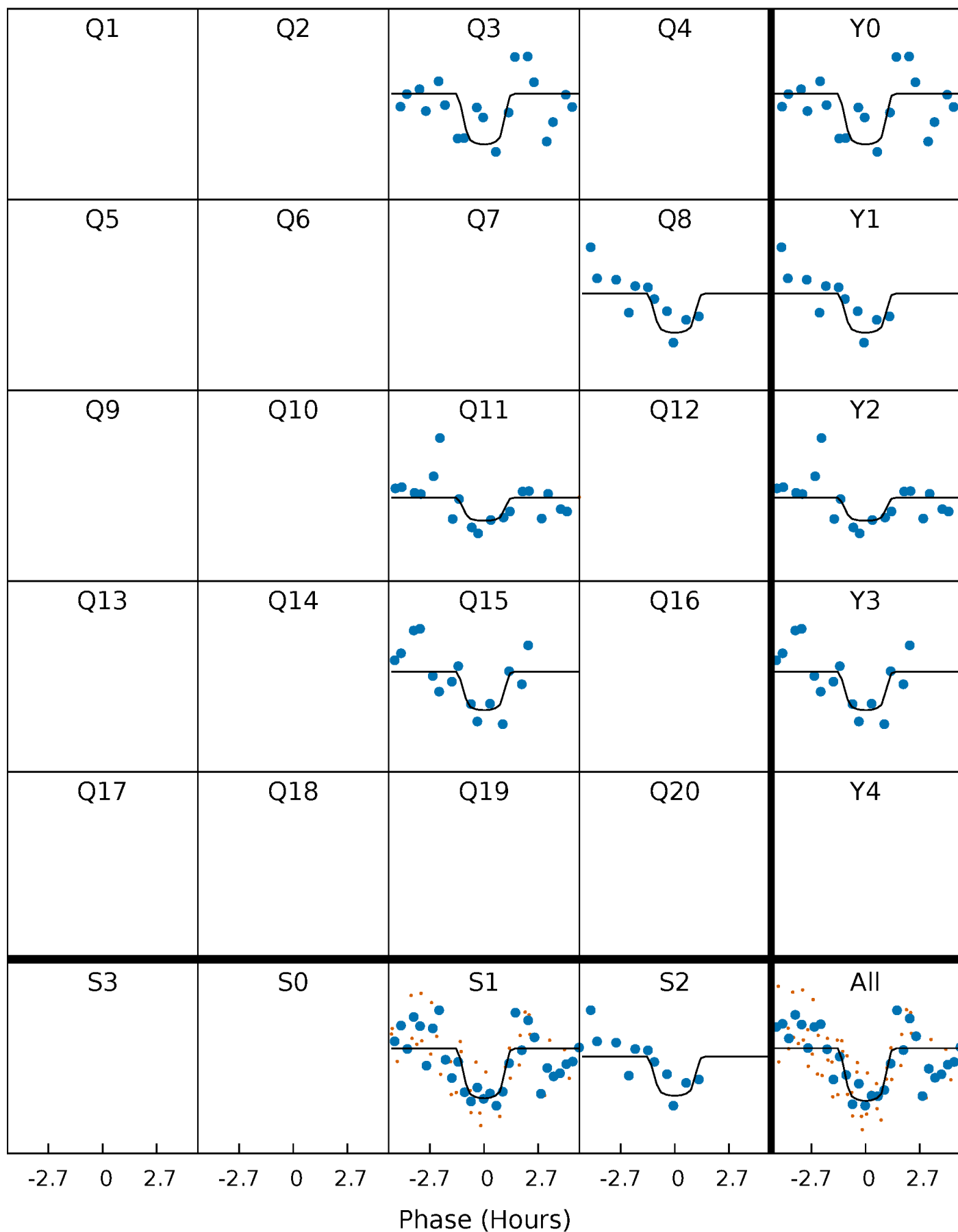
PDC Quarter-Phased Transit Curves

TCE 003955026-06 P=141.631780 Days $T_0=173.900844$ (BKJD)



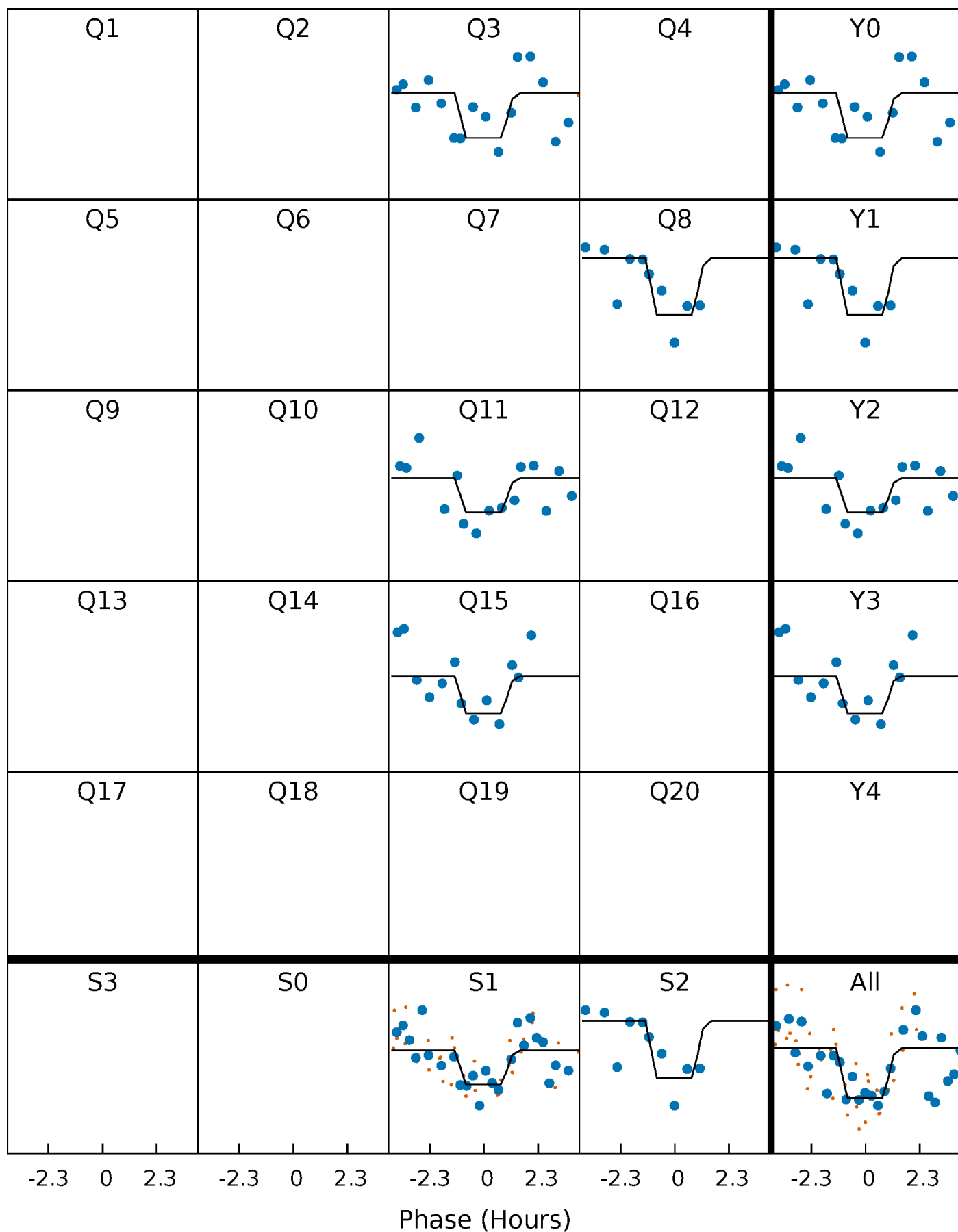
DV Quarter-Phased Transit Curves

TCE 003955026-06 P=141.631780 Days $T_0=173.900844$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

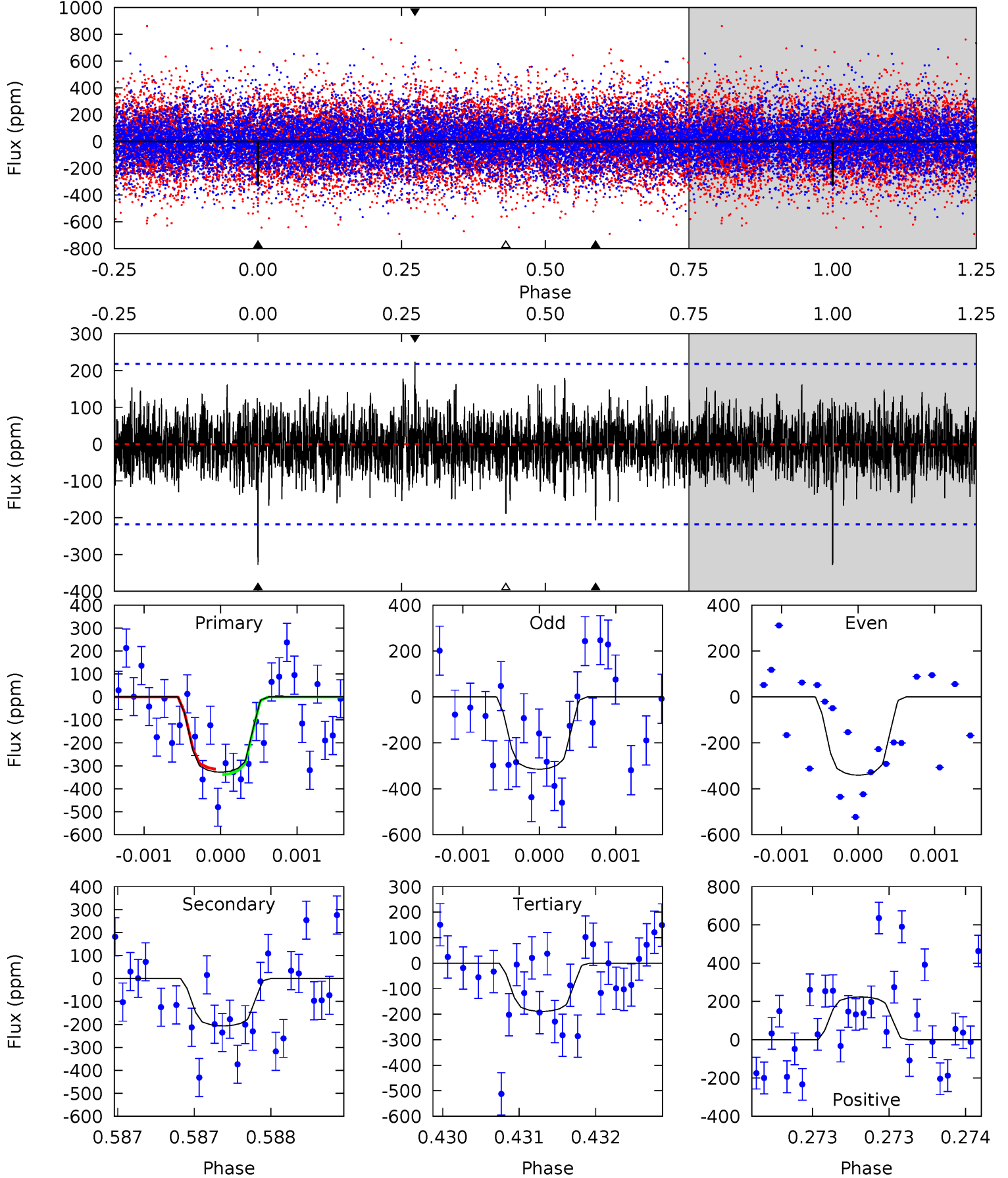
TCE 003955026-06 P=141.632650 Days $T_0=173.900229$ (BKJD)



DV Model-Shift Uniqueness Test

003955026-06, P = 141.631780 Days, E = 32.269064 Days

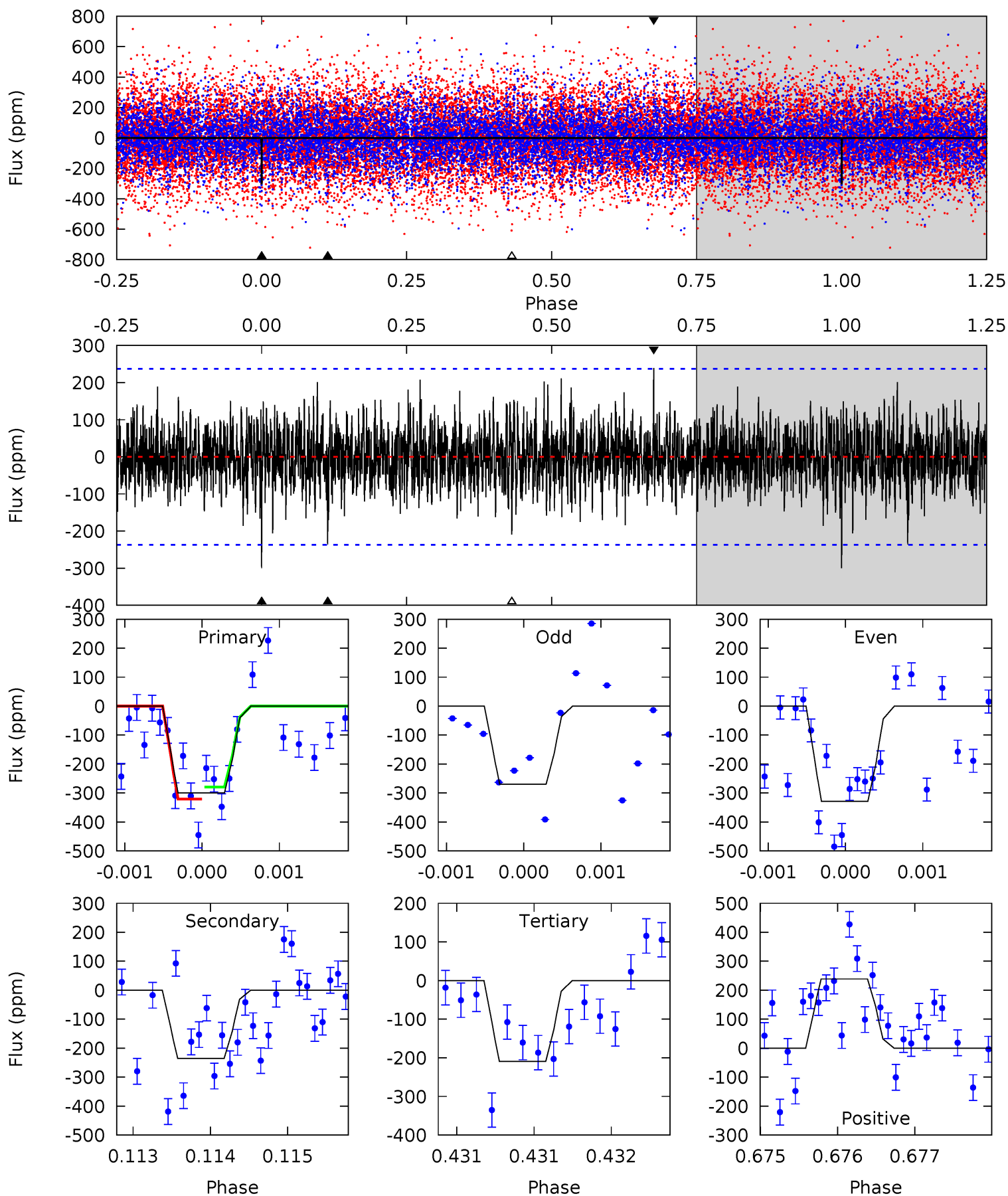
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.28	5.21	4.77	5.65	5.51	3.38	1.31	3.51	2.63	0.44	-0.44	0.33	1.02	0.41	0.30



Alt Model-Shift Uniqueness Test

003955026-06, P = 141.632650 Days, E = 32.267579 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.97	5.47	4.86	5.55	5.51	3.38	1.40	2.11	1.42	0.62	-0.07	0.69	1.03	0.44	0.47



Stellar Parameters For KIC 003955026

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6887^{+214}_{-285}	$4.055^{+0.246}_{-0.164}$	$-0.260^{+0.300}_{-0.300}$	$1.826^{+0.522}_{-0.522}$	$1.383^{+0.207}_{-0.253}$	$0.320^{+0.440}_{-0.151}$
	+3%/-4%	+6%/-4%	+115%/-115%	+29%/-29%	+15%/-18%	+137%/-47%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 003955026-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-206 ± 40	$3.89^{+2.77}_{-2.29}$	736^{+63}_{-59}	5798^{+3944}_{-1225}	2617^{+13676}_{-1753}
Alt.	-236 ± 43	$3.54^{+2.73}_{-2.02}$	735^{+59}_{-63}	6316^{+4039}_{-1512}	3670^{+15628}_{-2575}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

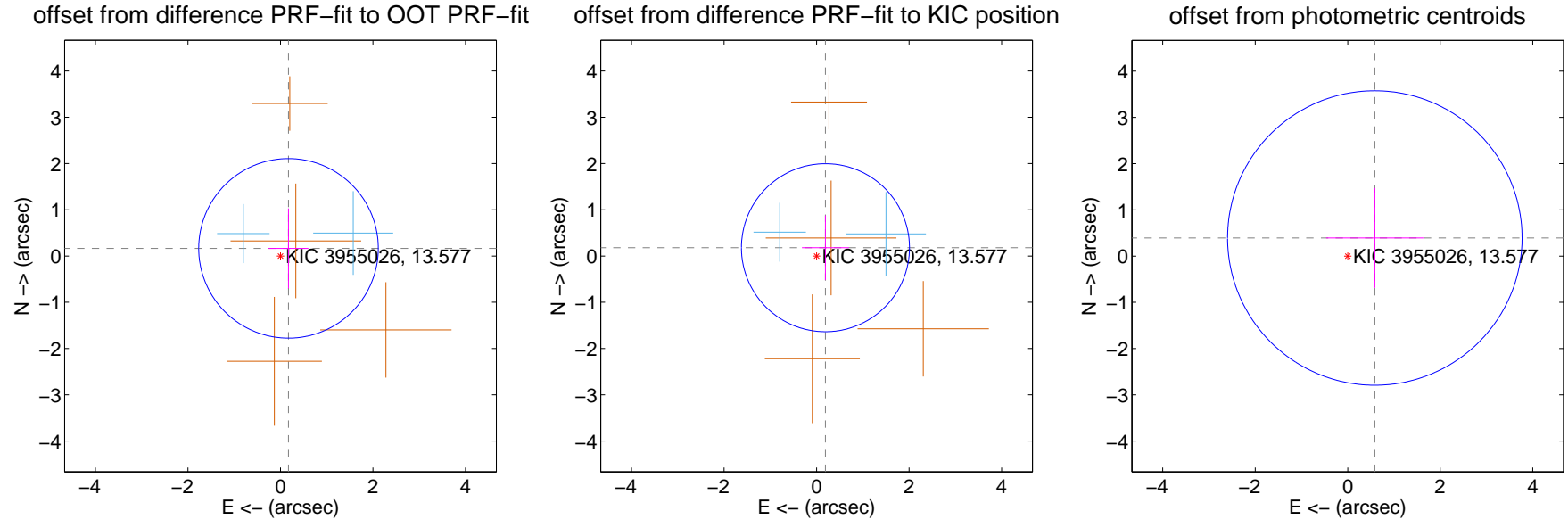
DV Centroid Data

Supplemental centroid analysis for 003955026-06. Kepler magnitude: 13.58. Transit SNR 8.12

There are 2 quarters with good PRF difference image offsets

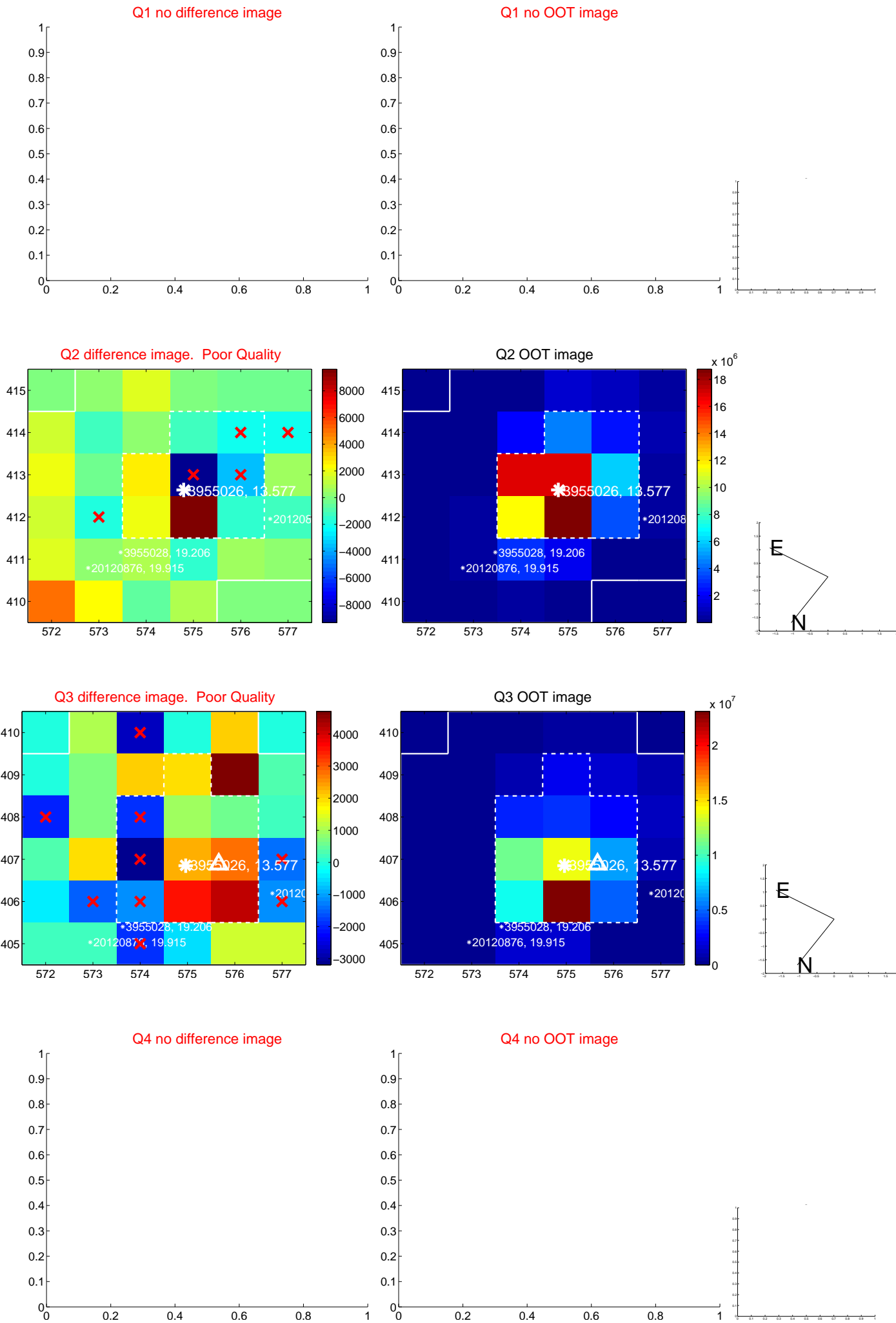
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.240 ± 0.647	0.37	-0.174 ± 0.430	0.166 ± 0.865
PRF-fit source offset from KIC position	0.263 ± 0.605	0.43	-0.192 ± 0.510	0.180 ± 0.699
photometric centroid source offset	0.70 ± 1.06	0.66	-0.59 ± 1.05	0.39 ± 1.08

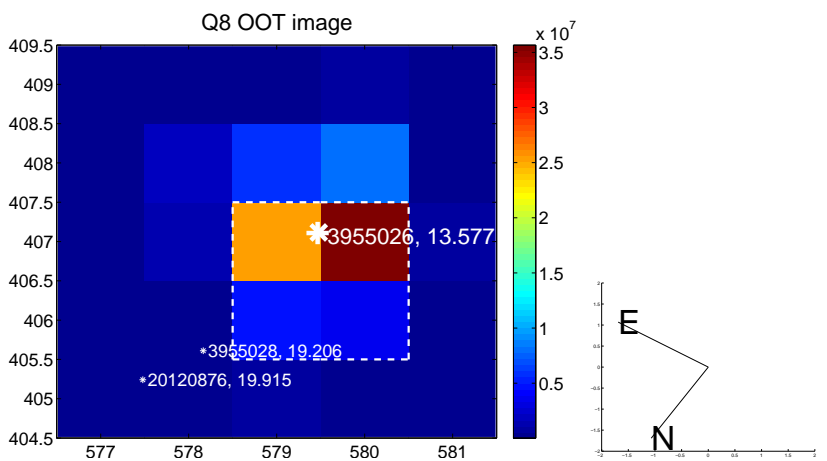
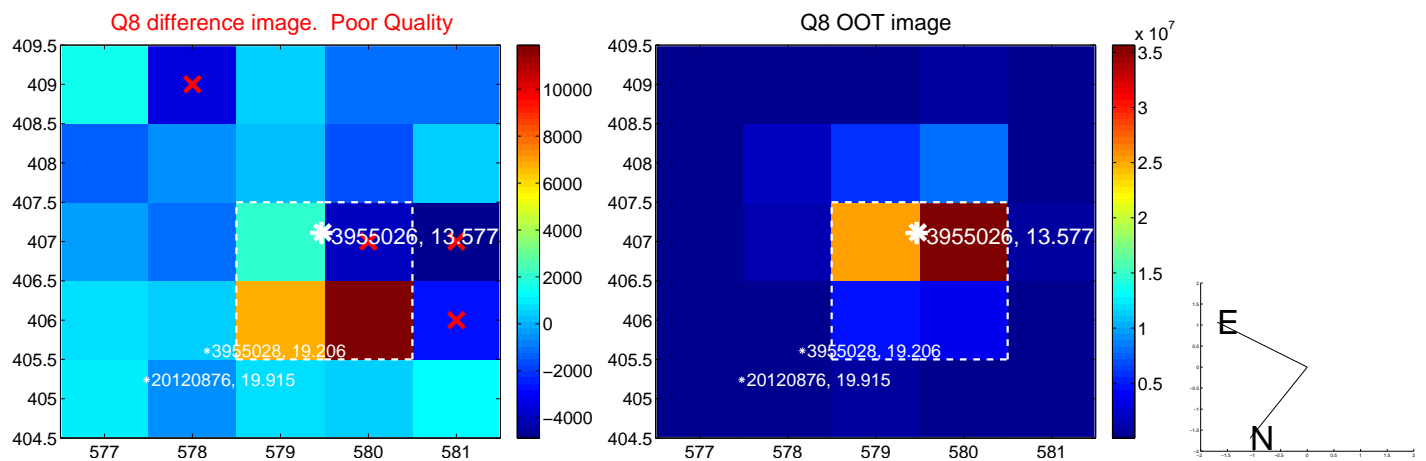
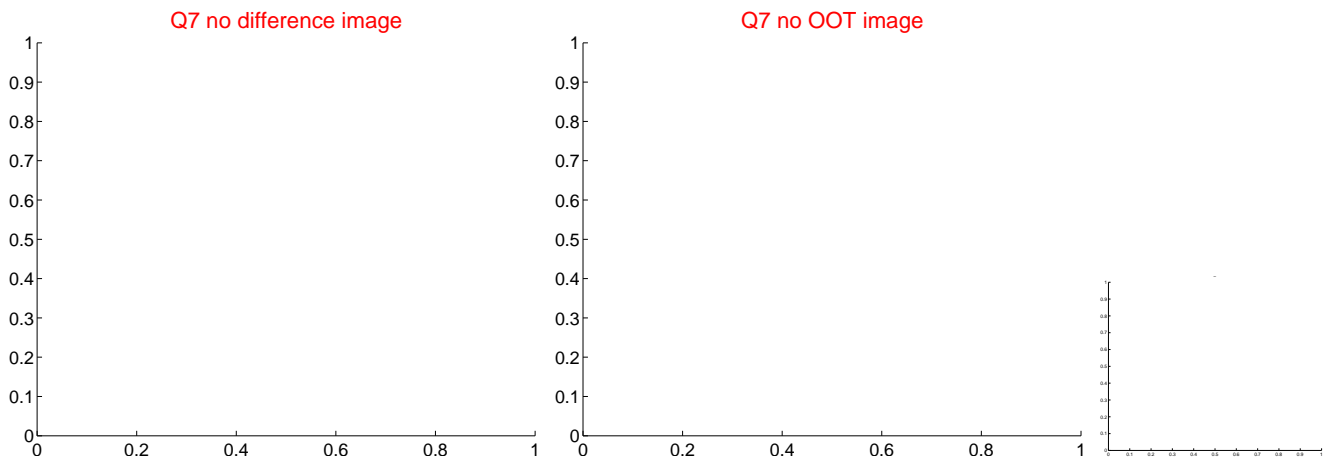
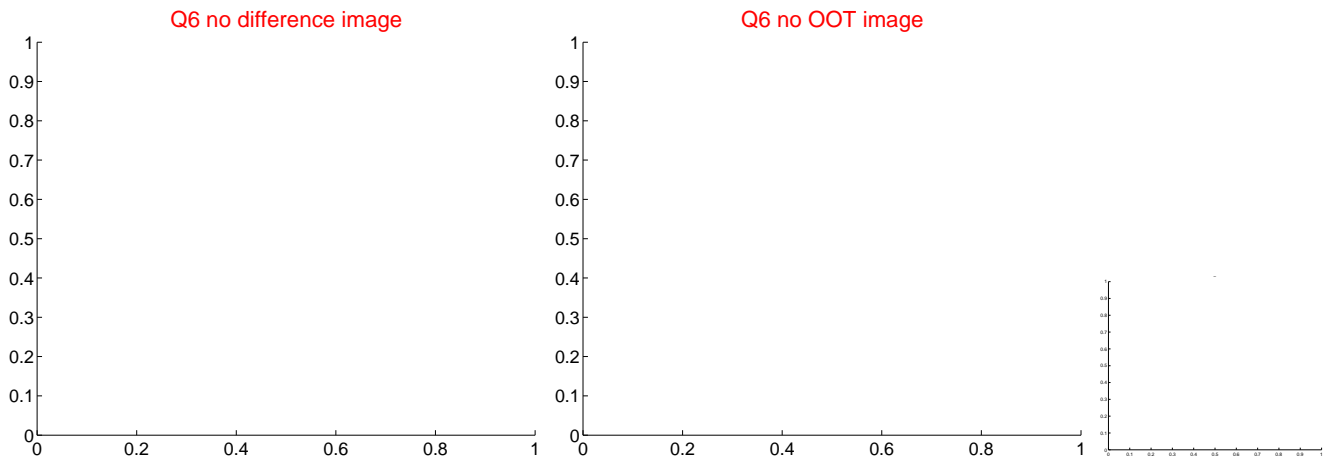
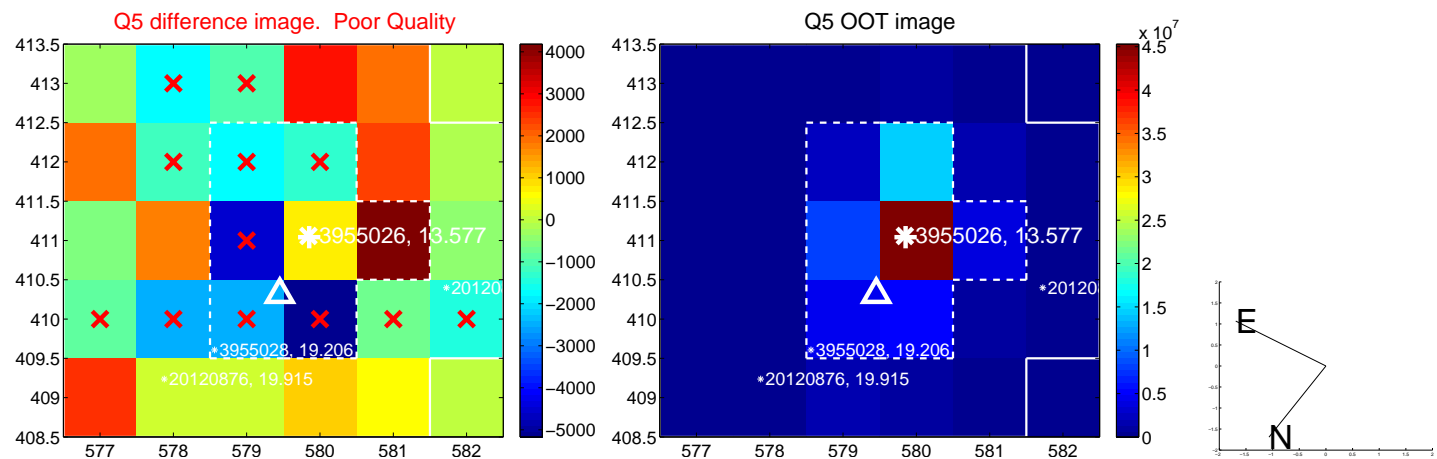


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

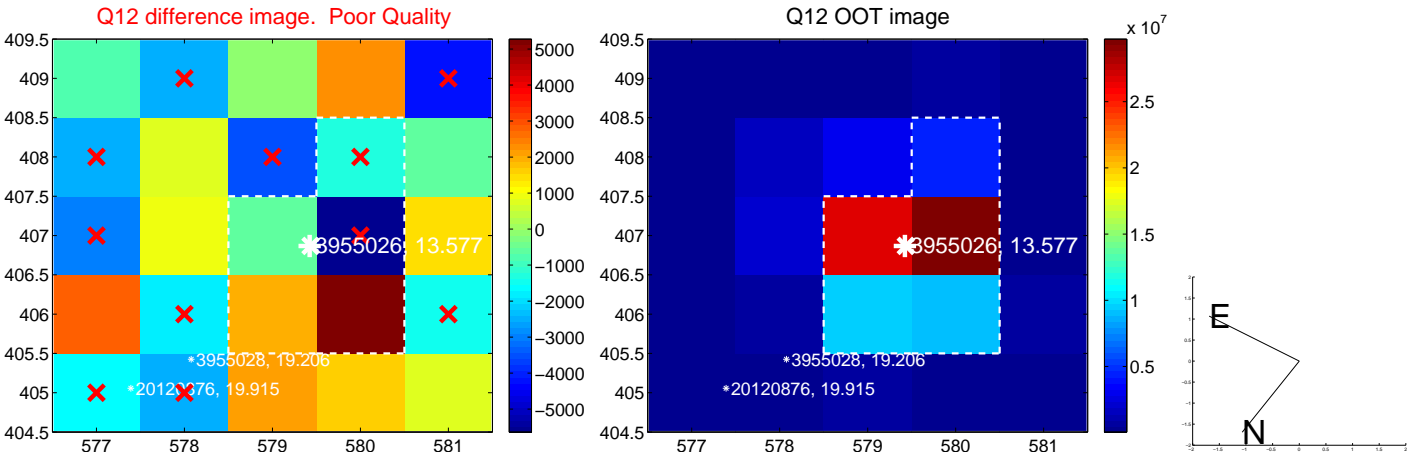
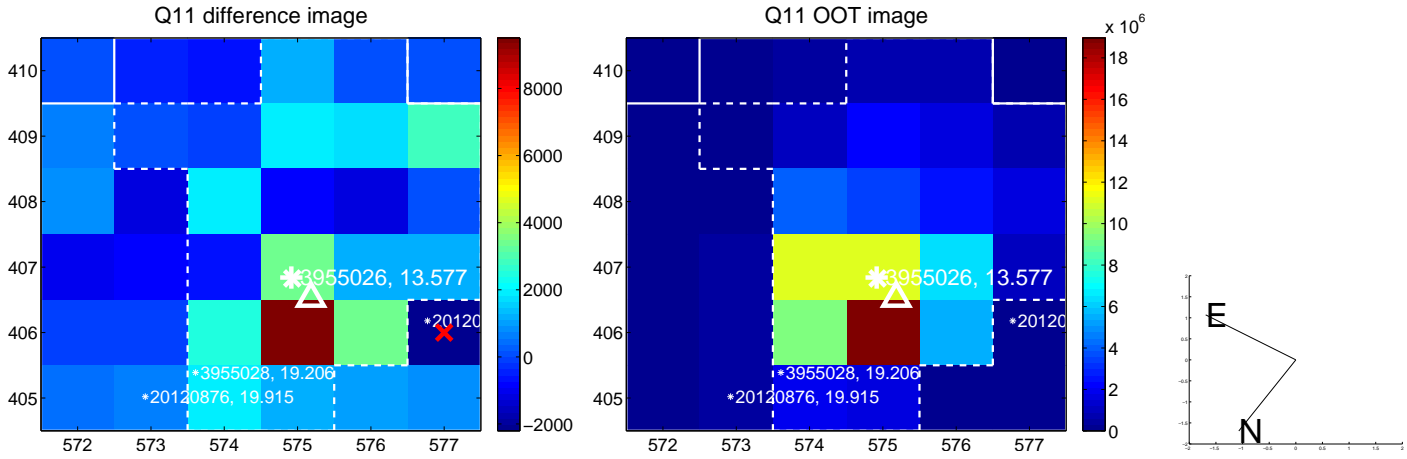
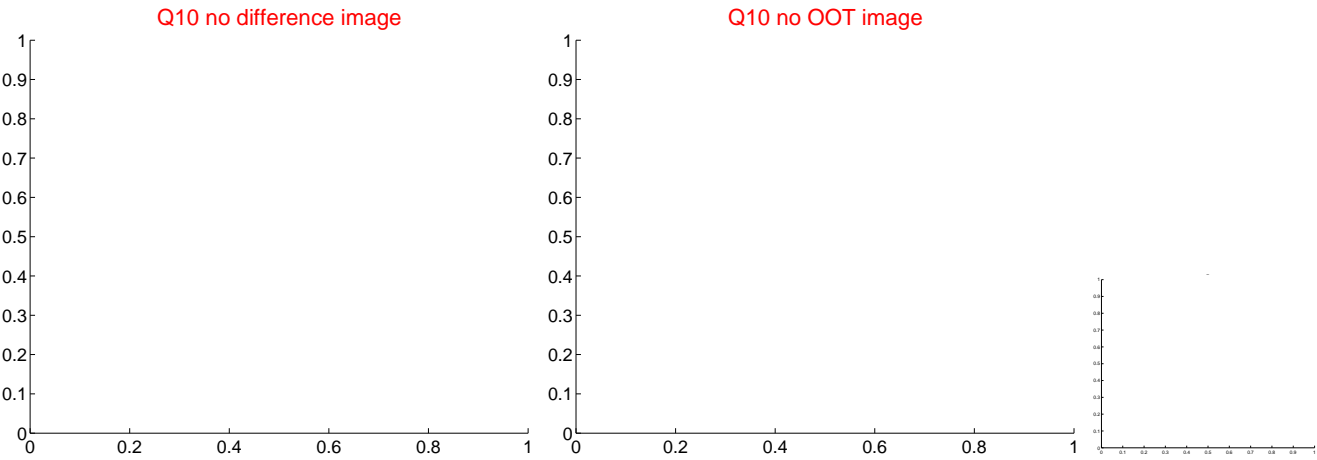
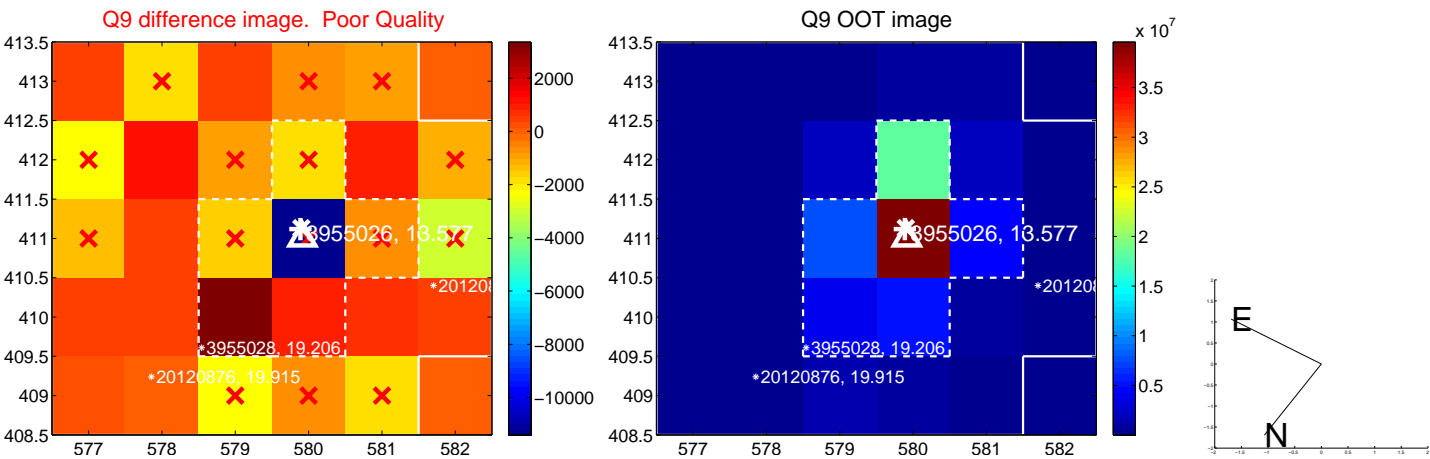
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



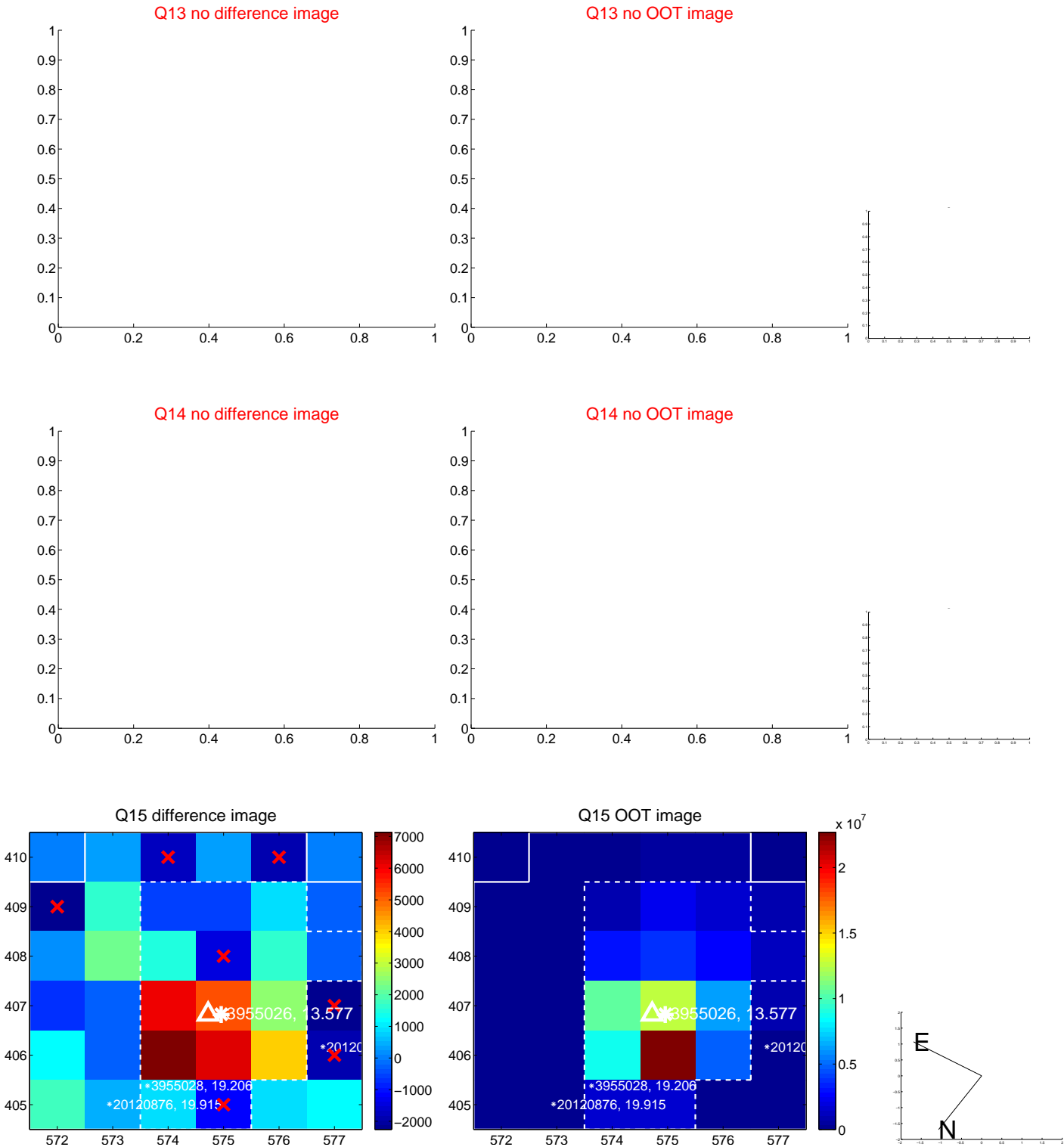
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



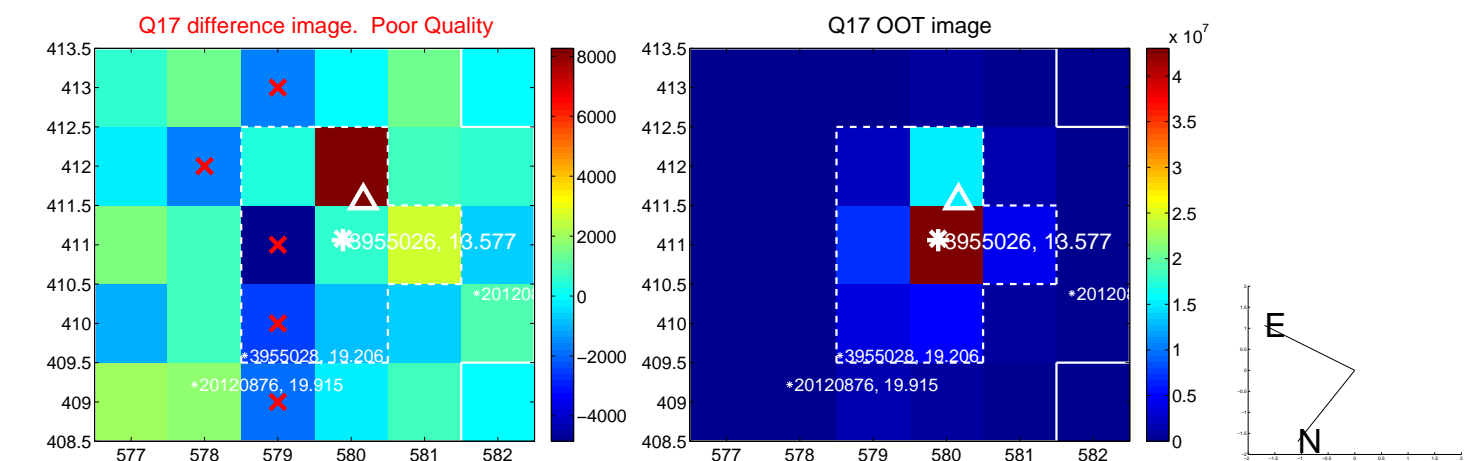
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



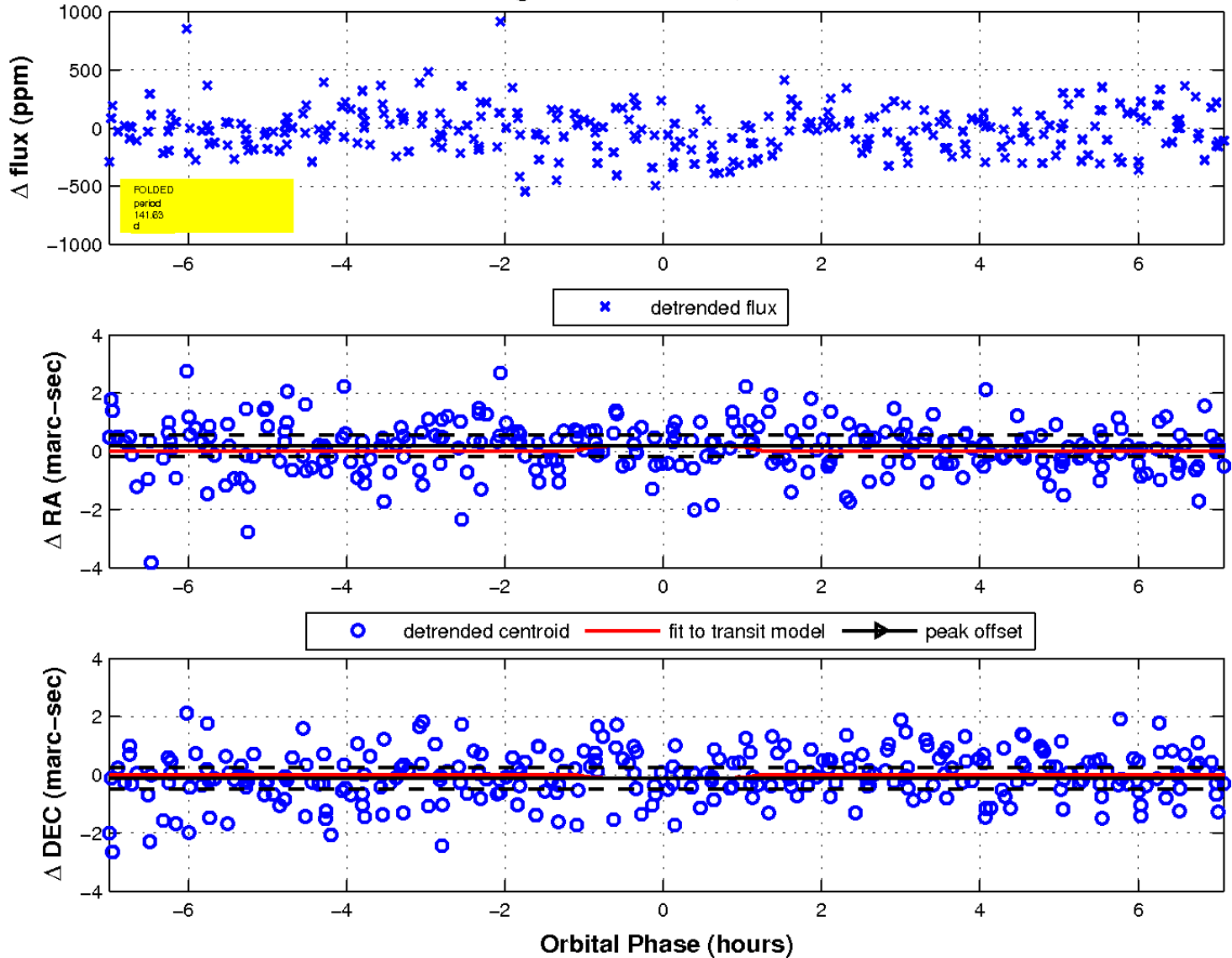
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

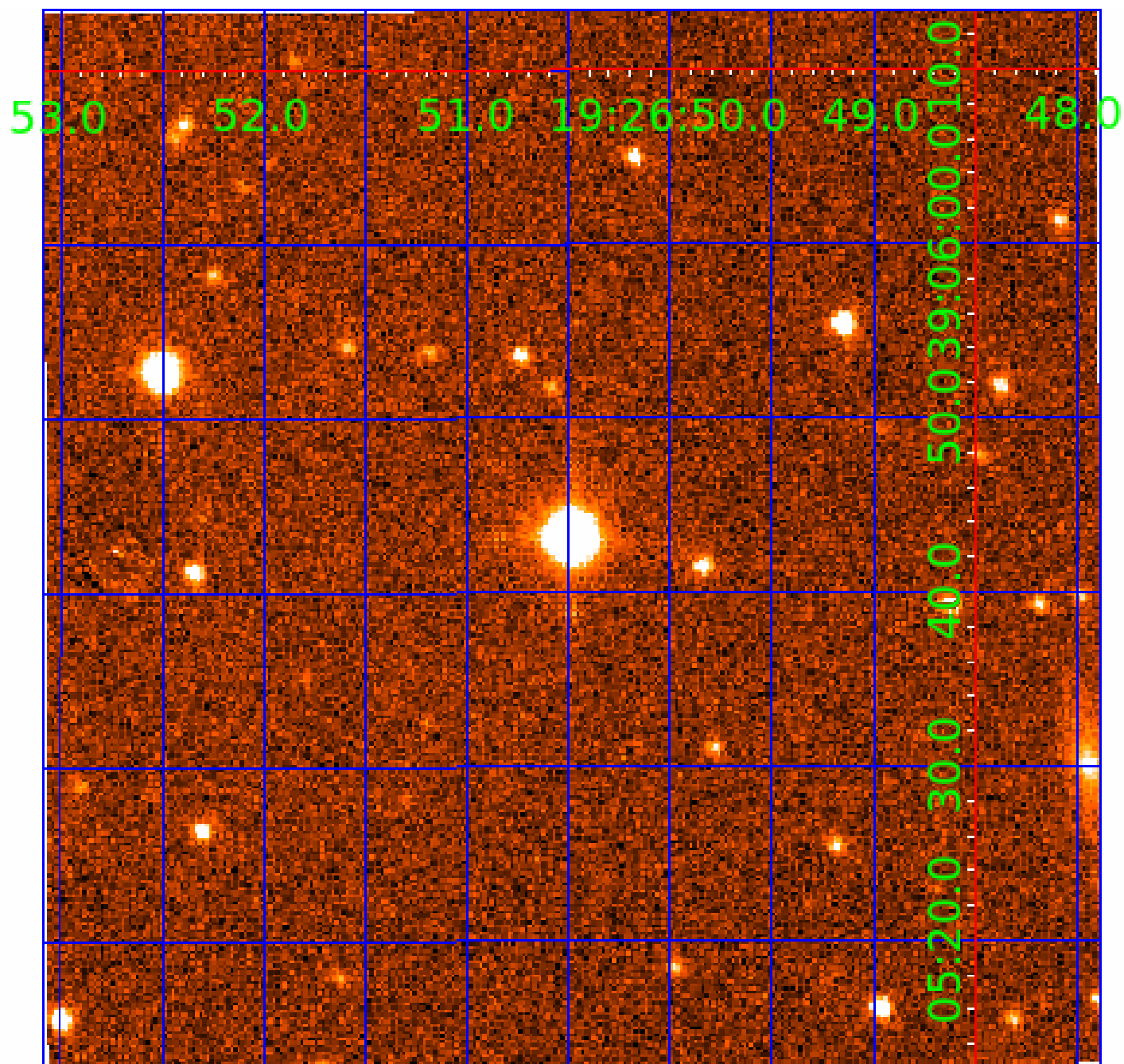


fluxWeightedCentroids, Planet 6 of 7



UKIRT Image

Declination



KIC 003955026

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
003955026-01	OBS	No	2.269846	132.925833	12.1	11.851	7.6	5.0	1.83	6887	0.64	4742.64
003955026-02	OBS	No	472.347430	158.501324	210.4	27.735	9.4	8.9	1.83	6887	3.06	3.85
003955026-03	OBS	No	137.480174	208.485675	400.2	2.120	7.8	8.5	1.83	6887	4.25	19.94
003955026-04	OBS	No	26.298968	145.354003	145.5	2.576	7.8	7.6	1.83	6887	2.48	180.90
003955026-05	OBS	No	210.044960	143.078264	335.9	3.609	7.5	8.0	1.83	6887	3.76	11.33
003955026-06	OBS	No	141.631780	173.900844	338.2	2.378	7.2	8.1	1.83	6887	3.92	19.16
003955026-07	OBS	No	96.535051	211.266209	302.1	2.559	7.4	7.9	1.83	6887	3.53	31.95

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003955026-01	OBS	FP	0.00	1	0	0	0	LPP_DV
003955026-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
003955026-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
003955026-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
003955026-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
003955026-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS—HALO_GHOST
003955026-07	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

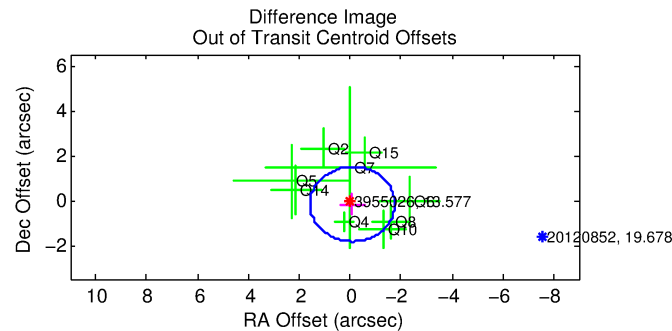
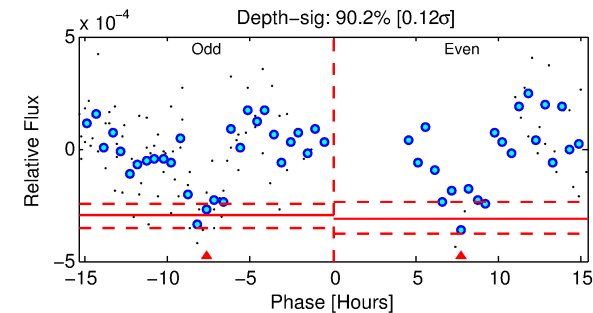
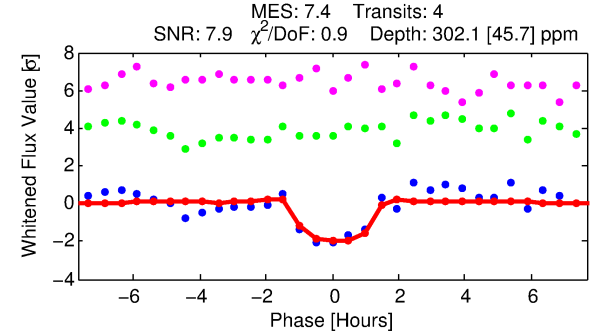
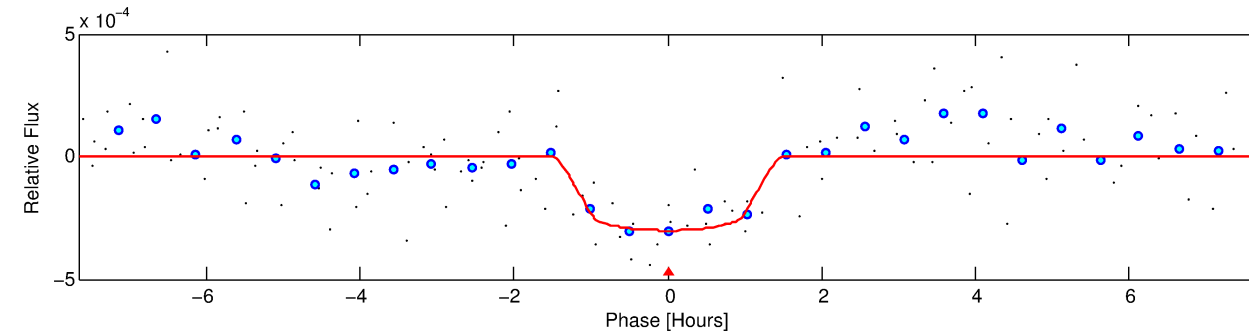
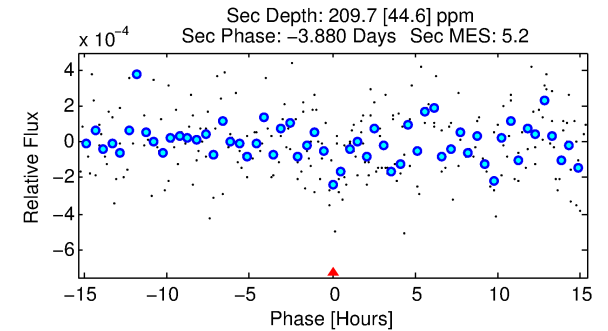
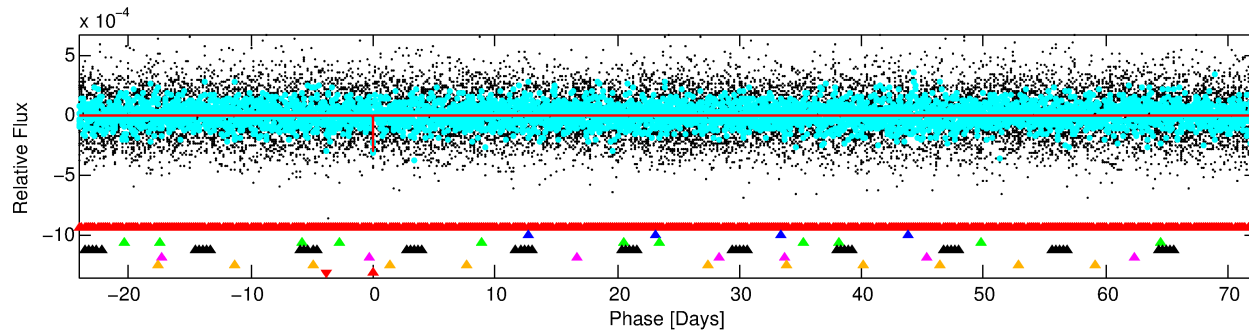
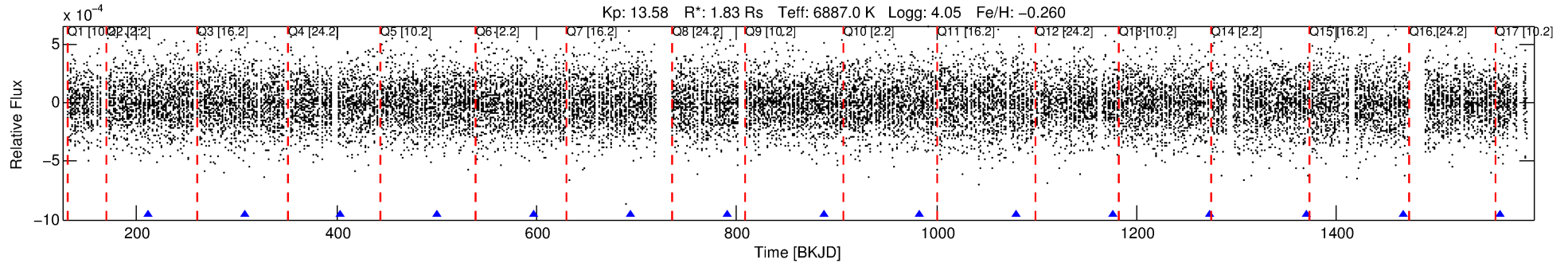
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003955026-07

No Significant Match Found

DV One-Page Summary

KIC: 3955026 Candidate: 7 of 7 Period: 96.535 d



DV Fit Results:

Period = 96.53505 [0.00084] d
Epoch = 211.2662 [0.0064] BKJD
Rp/R* = 0.0177 [0.0137]
a/R* = 174.29 [783.02]
b = 0.82 [1.83]
Seff = 31.95 [14.51]
Teq = 606 [69] K
Rp = 3.53 [2.90] Re
a = 0.4587 [0.1230] AU
Ag = 1947.74 [3141.29] [0.62σ]
Teffp = 6227 [2436] K [2.31σ]

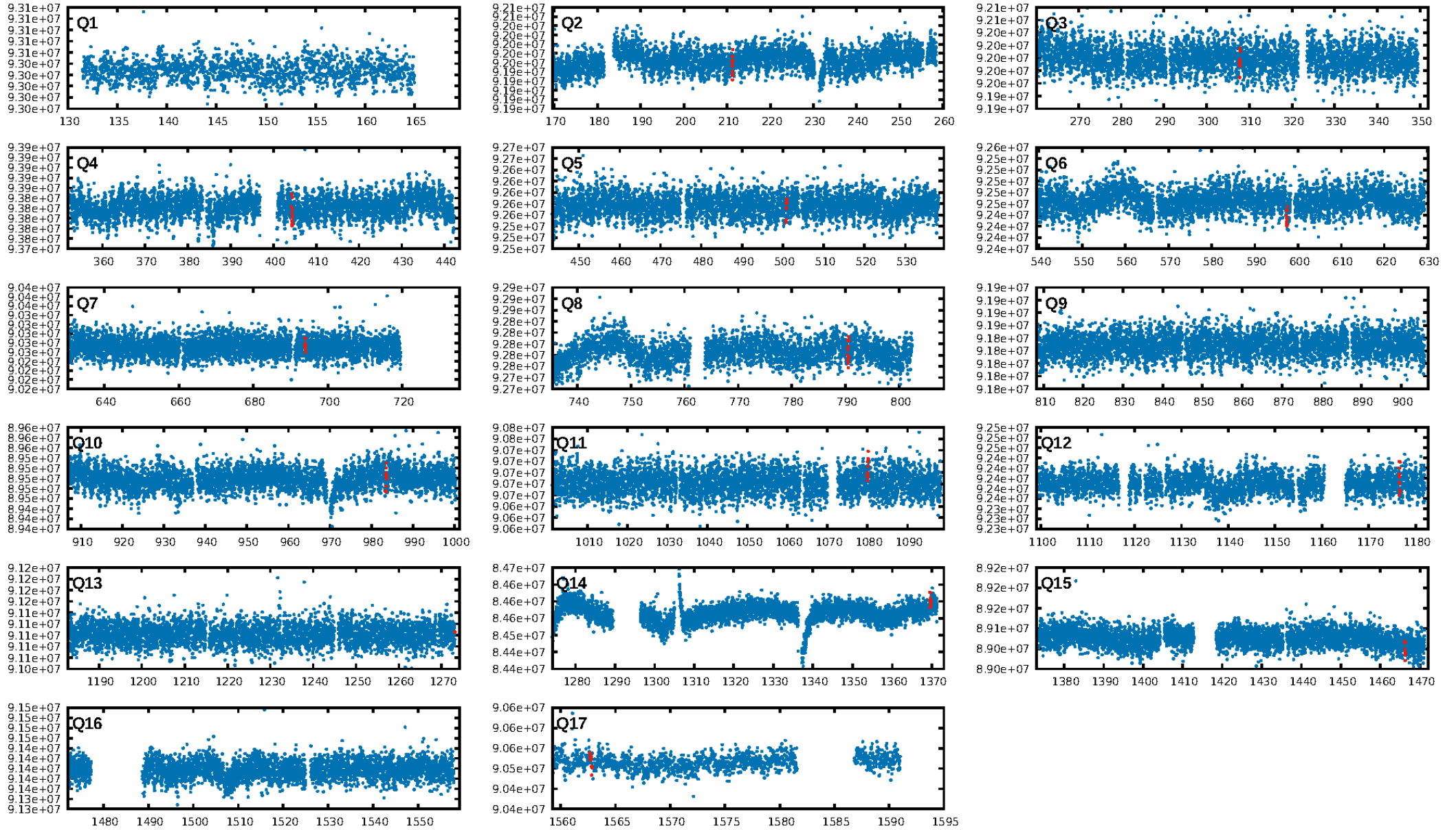
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [464.19σ]
LongPeriod-sig: 100.0% [295.69σ]
ModelChiSquare2-sig: 95.7%
ModelChiSquareGof-sig: 99.0%
Bootstrap-pfa: 7.74e-09
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.01115
Centroid-sig: 53.7%
Centroid-so: 0.681 arcsec [0.68σ]
OotOffset-rm: 0.193 arcsec [0.35σ]
OotOffset-st: 4/2/2/1 [9]
KicOffset-rm: 0.106 arcsec [0.18σ]
KicOffset-st: 4/2/2/1 [9]
DiffImageQuality-fgm: 0.22 [2/9]
DiffImageOverlap-fno: 0.46 [6/13]

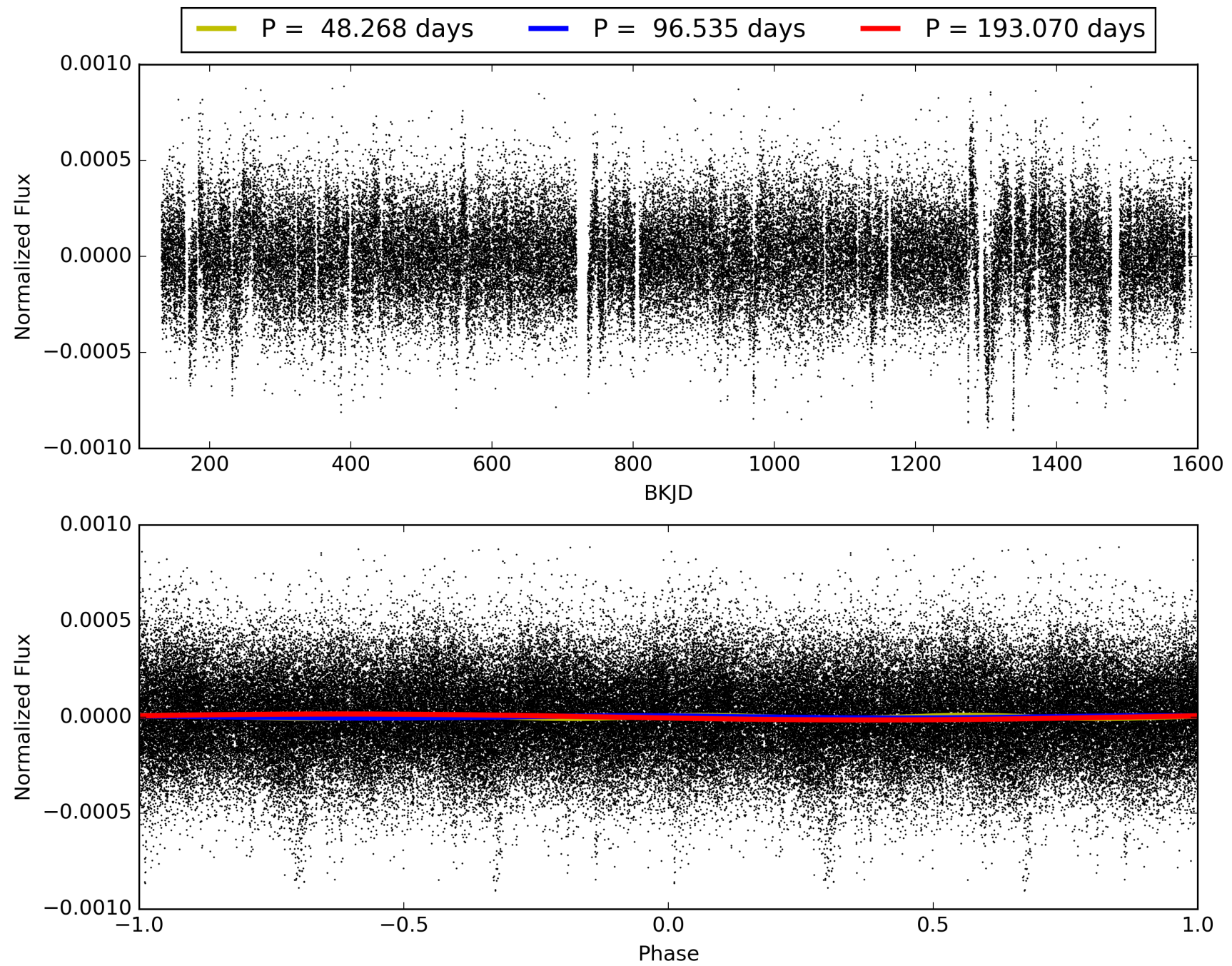
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 11:25:16 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 003955026-07, PDC Light Curves

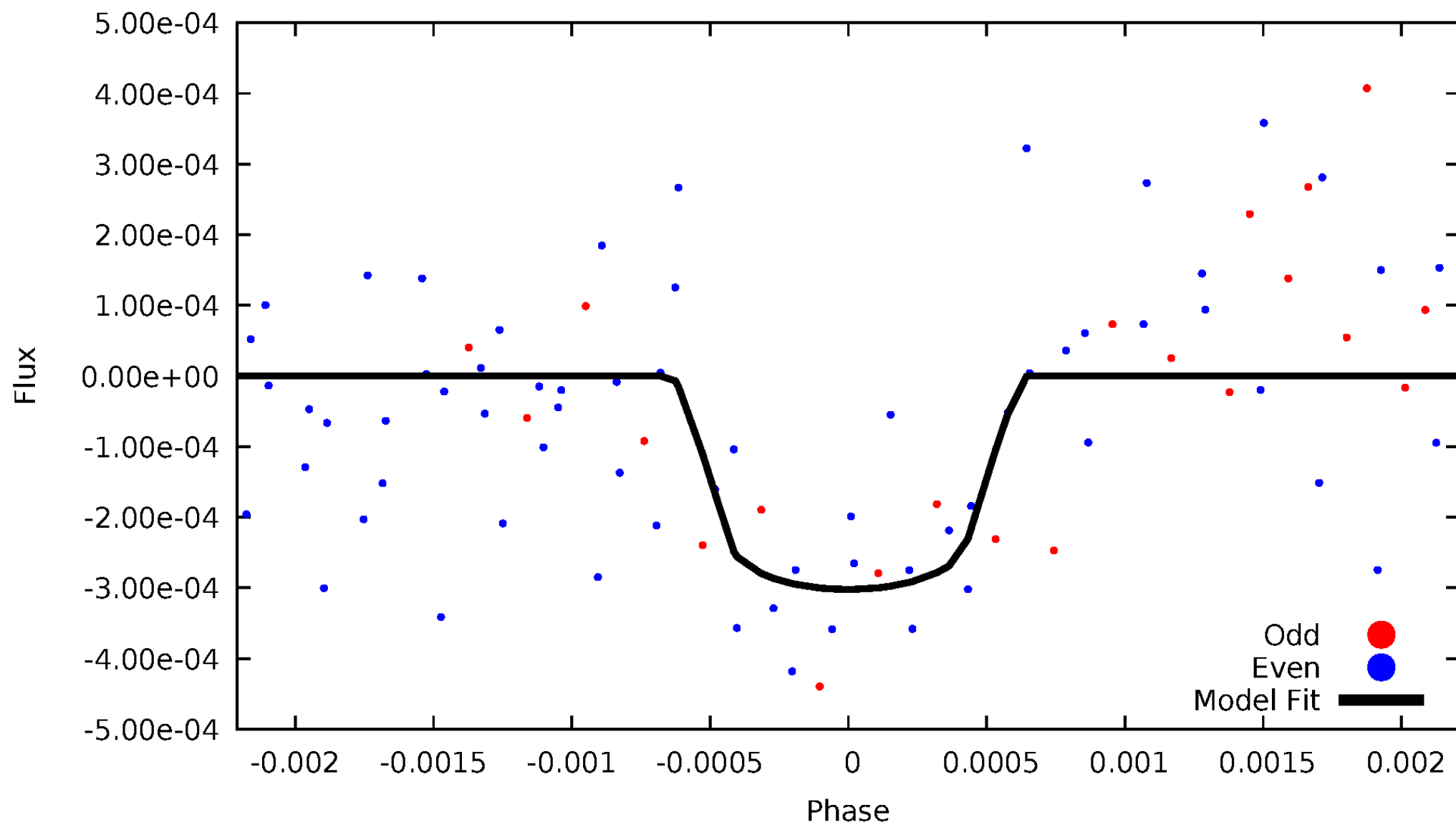


TCE 003955026-07



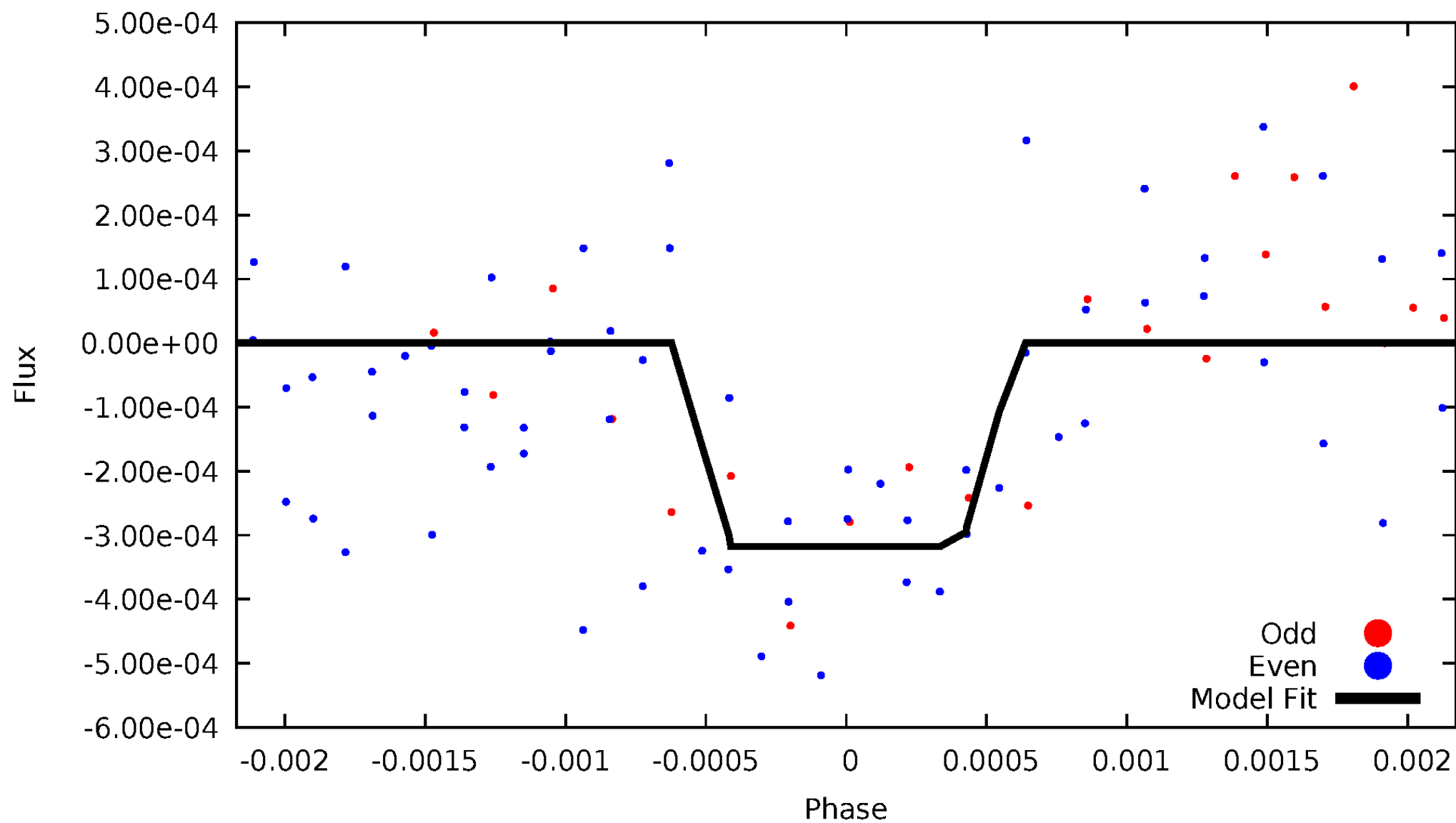
DV Odd/Even

TCE 003955026-07



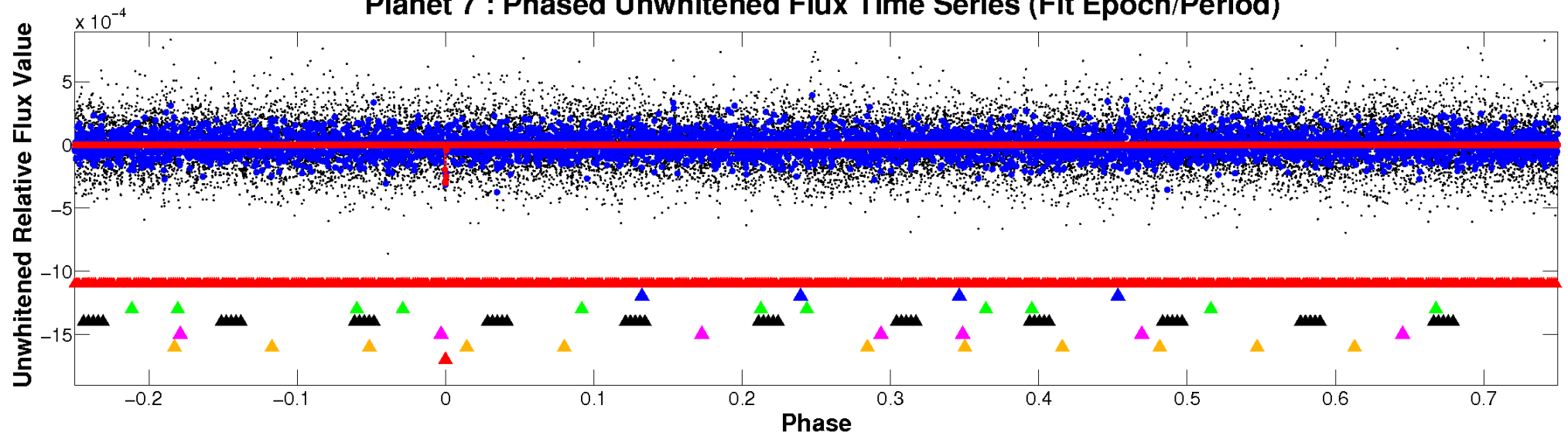
ALT Odd/Even

TCE 003955026-07

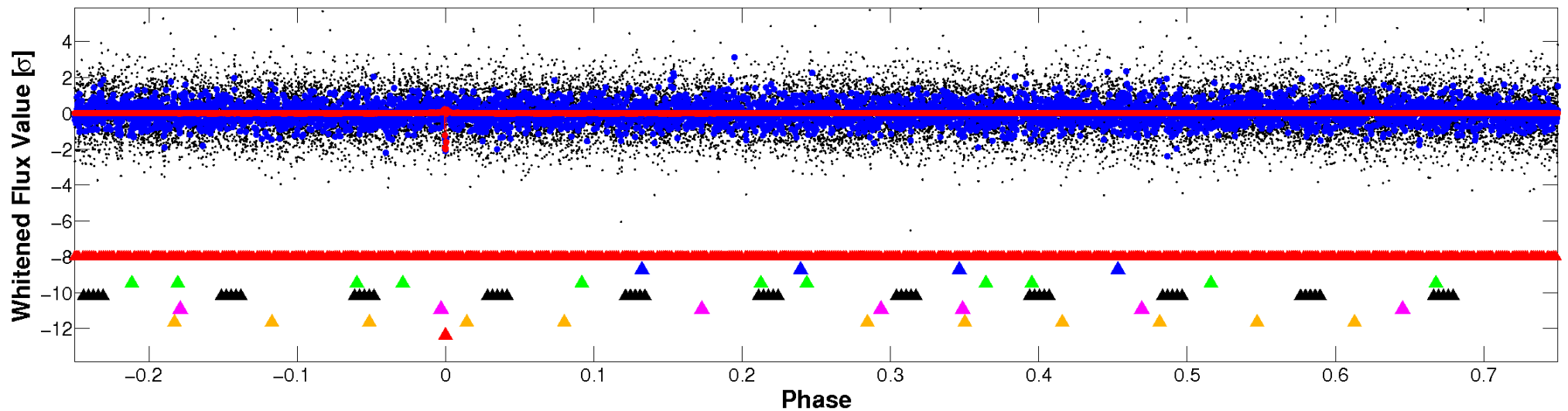


Non-Whitened Vs. Whitened Light Curve

Planet 7 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

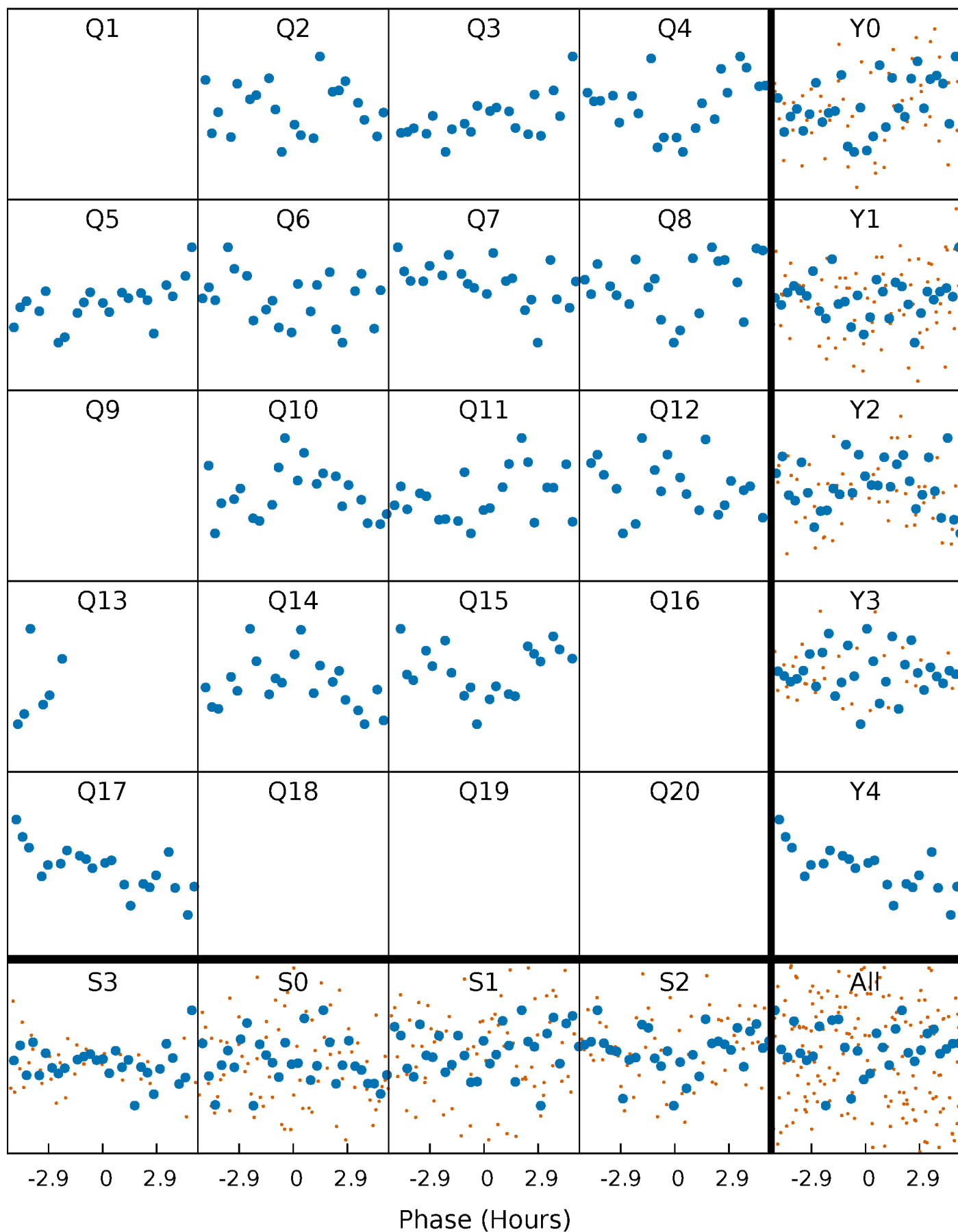


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



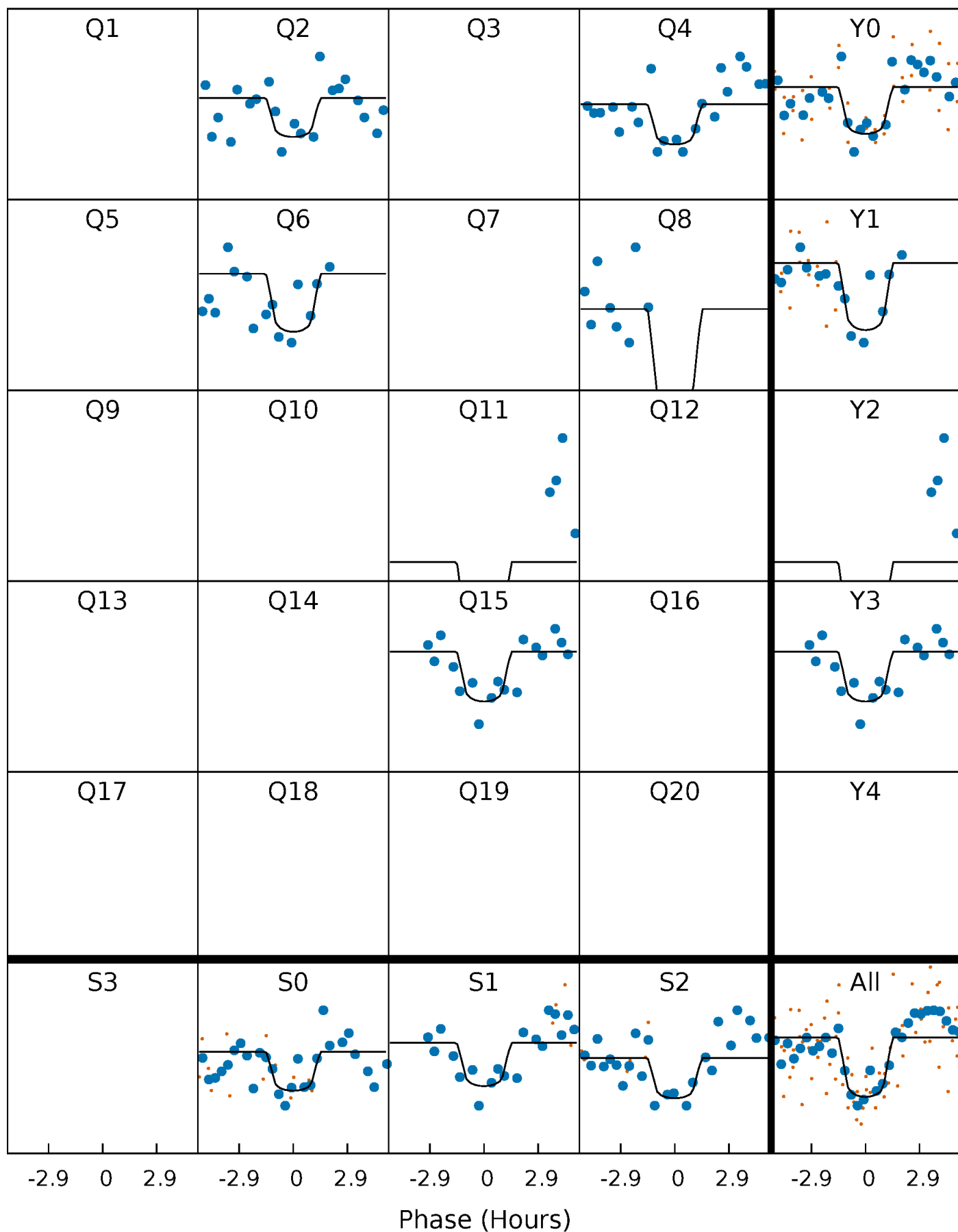
PDC Quarter-Phased Transit Curves

TCE 003955026-07 $P = 96.535051$ Days $T_0 = 211.266209$ (BKJD)



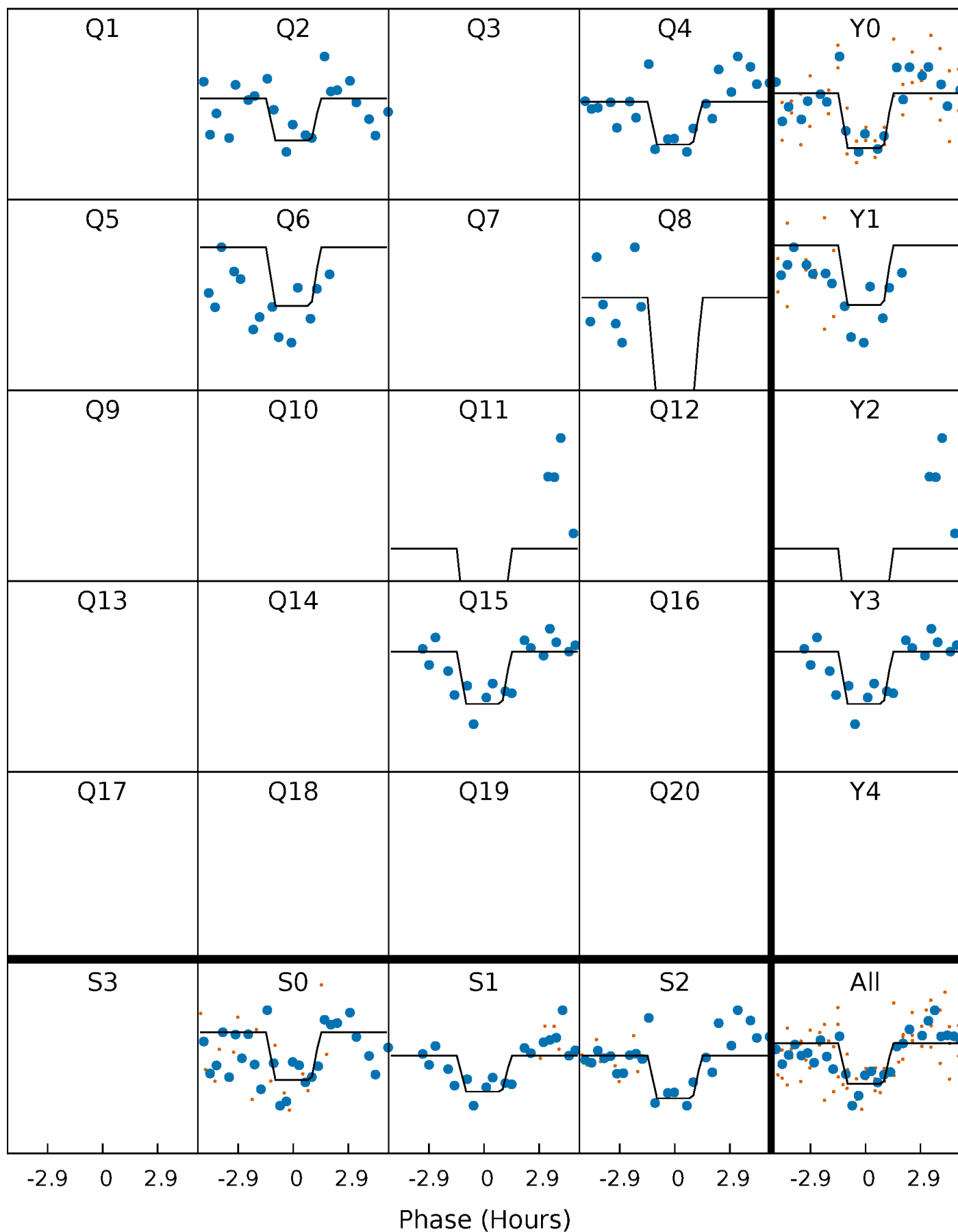
DV Quarter-Phased Transit Curves

TCE 003955026-07 P= 96.535051 Days $T_0=211.266209$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

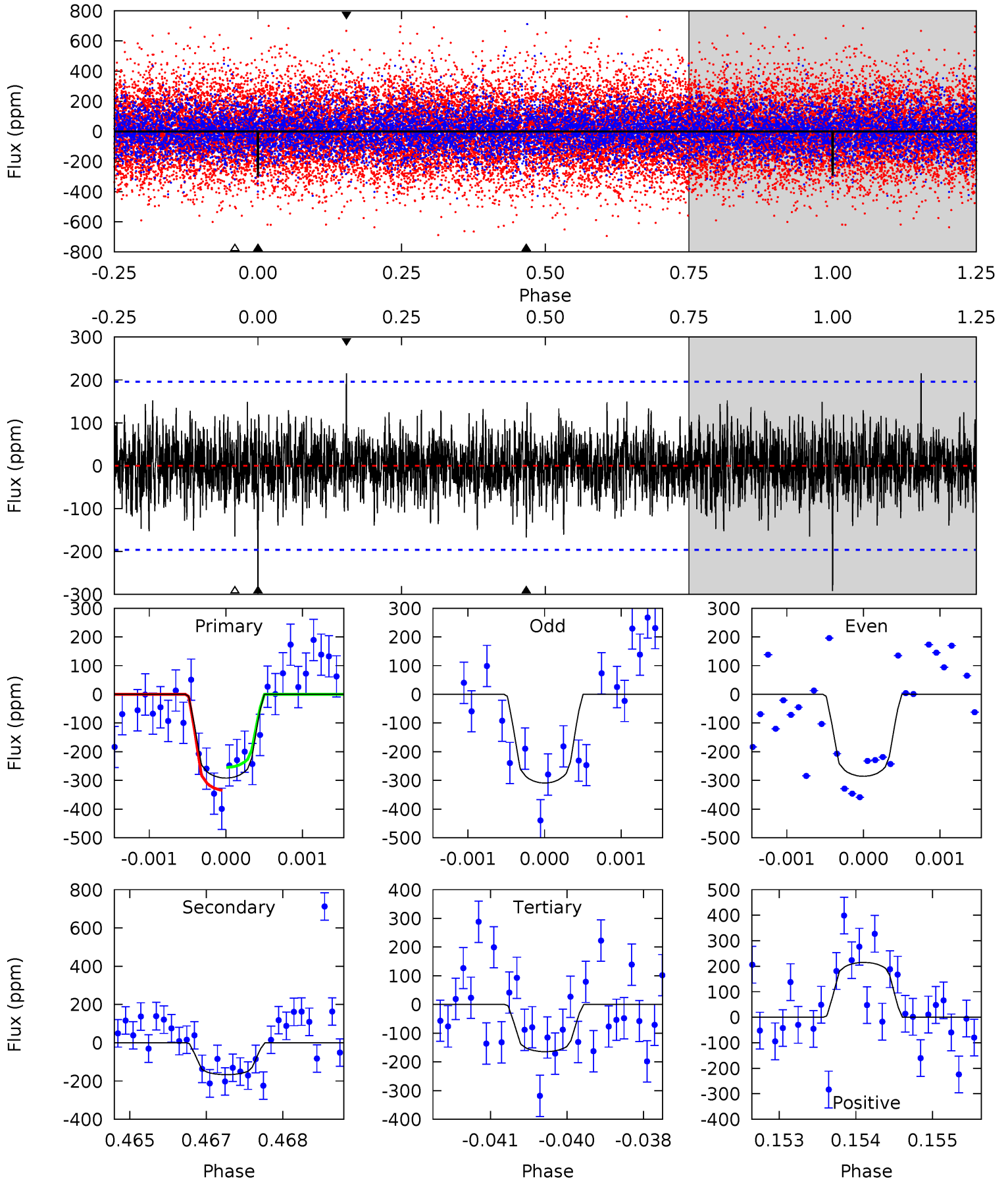
TCE 003955026-07 P= 96.535744 Days $T_0=211.266442$ (BKJD)



DV Model-Shift Uniqueness Test

003955026-07, P = 96.535051 Days, E = 114.731158 Days

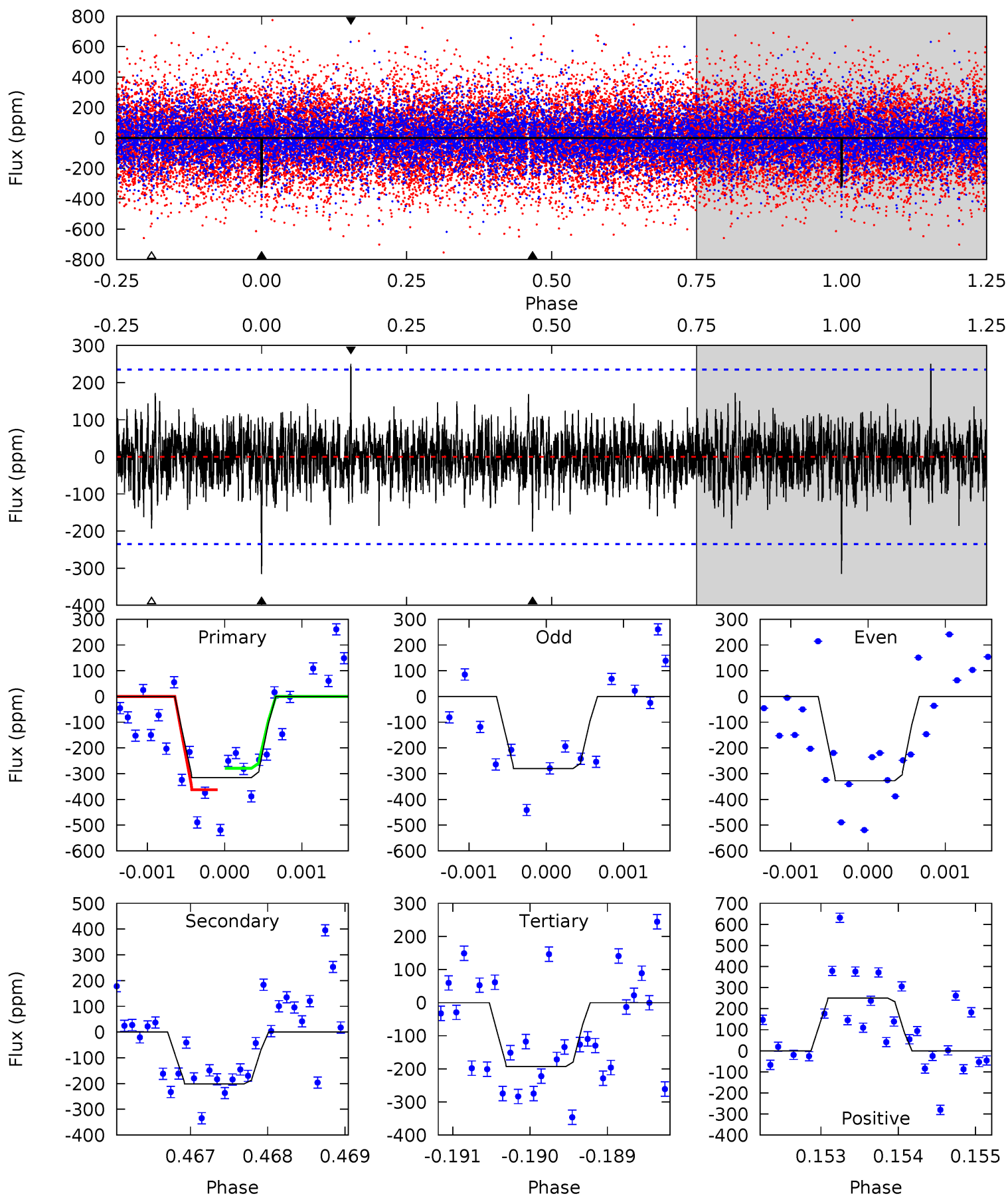
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.06	4.60	4.54	5.93	5.41	3.22	1.31	3.52	2.13	0.06	-1.33	0.28	0.98	0.42	1.10



Alt Model-Shift Uniqueness Test

003955026-07, P = 96.535744 Days, E = 114.730698 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.32	4.67	4.48	5.82	5.46	3.30	1.17	2.84	1.50	0.18	-1.16	0.49	1.09	0.44	0.95



Stellar Parameters For KIC 003955026

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6887^{+214}_{-285}	$4.055^{+0.246}_{-0.164}$	$-0.260^{+0.300}_{-0.300}$	$1.826^{+0.522}_{-0.522}$	$1.383^{+0.207}_{-0.253}$	$0.320^{+0.440}_{-0.151}$
	+3%/-4%	+6%/-4%	+115%/-115%	+29%/-29%	+15%/-18%	+137%/-47%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 003955026-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-167 ± 36	$3.75^{+2.60}_{-2.19}$	838^{+69}_{-67}	5607^{+3862}_{-1153}	1415^{+7127}_{-973}
Alt.	-201 ± 43	$3.74^{+2.77}_{-2.28}$	839^{+63}_{-68}	5810^{+4316}_{-1225}	1578^{+8758}_{-1042}

T_{max} = Theoretical Maximum Planetary Temperature
 T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)
 A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

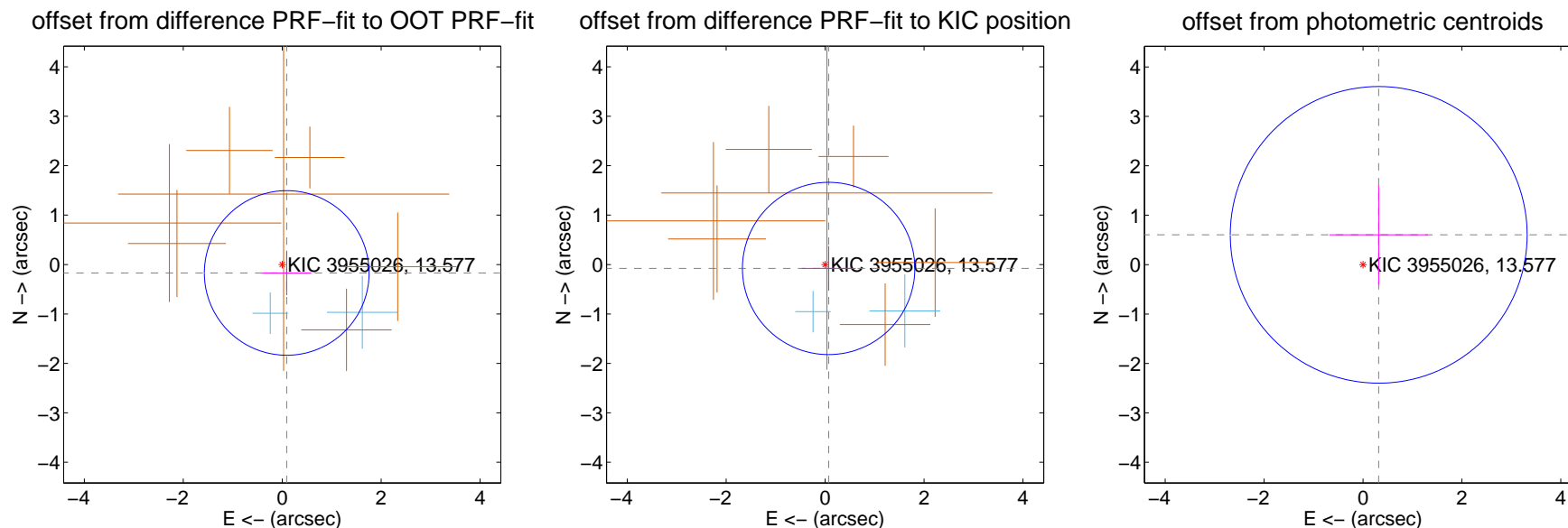
DV Centroid Data

Supplemental centroid analysis for 003955026-07. Kepler magnitude: 13.58. Transit SNR 7.86

There are 2 quarters with good PRF difference image offsets

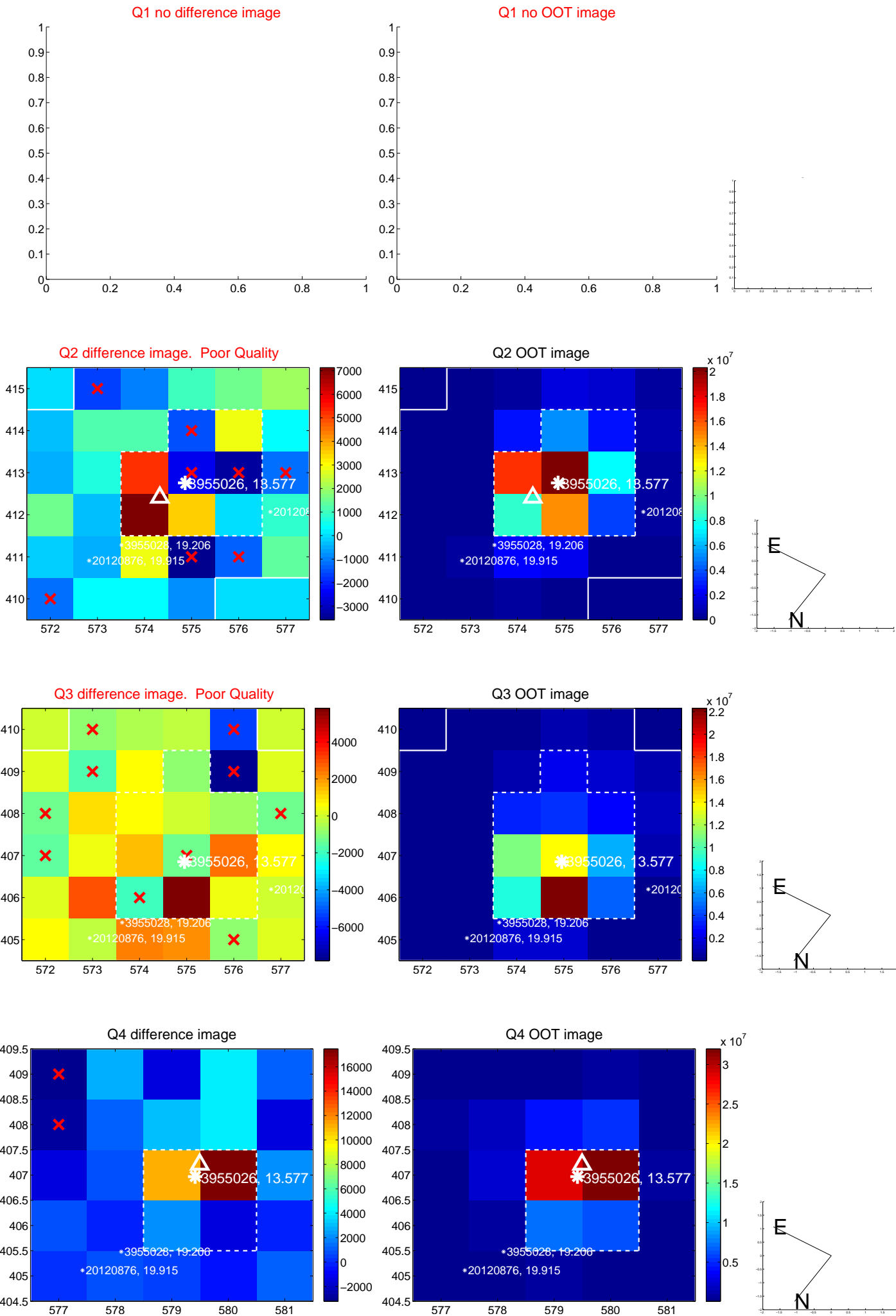
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.193 ± 0.555	0.35	-0.091 ± 0.497	-0.170 ± 0.450
PRF-fit source offset from KIC position	0.106 ± 0.581	0.18	-0.071 ± 0.547	-0.079 ± 0.452
photometric centroid source offset	0.68 ± 1.00	0.68	-0.32 ± 0.99	0.60 ± 1.00

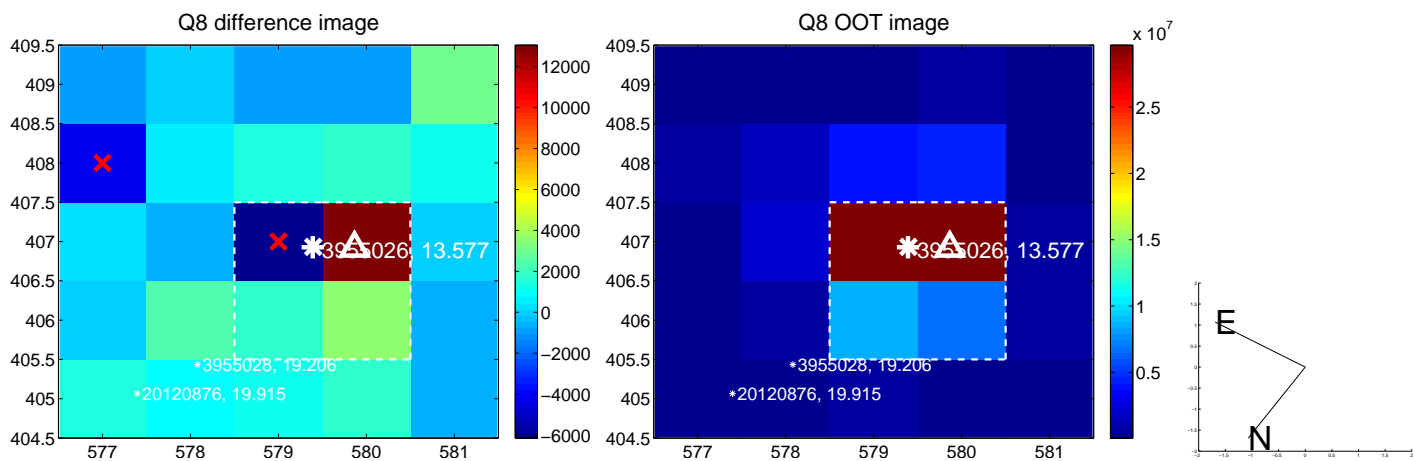
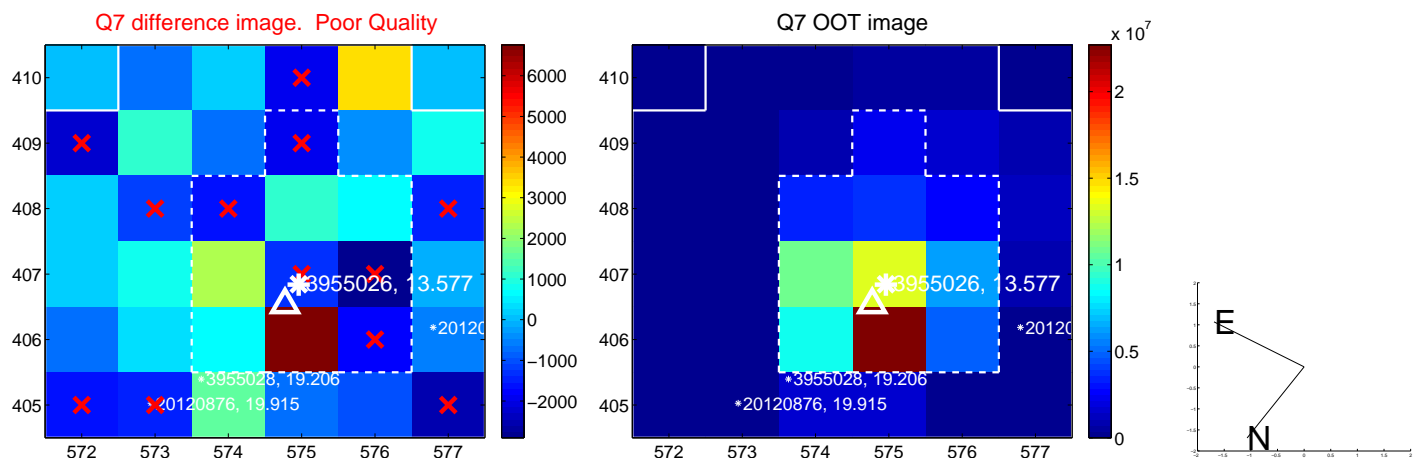
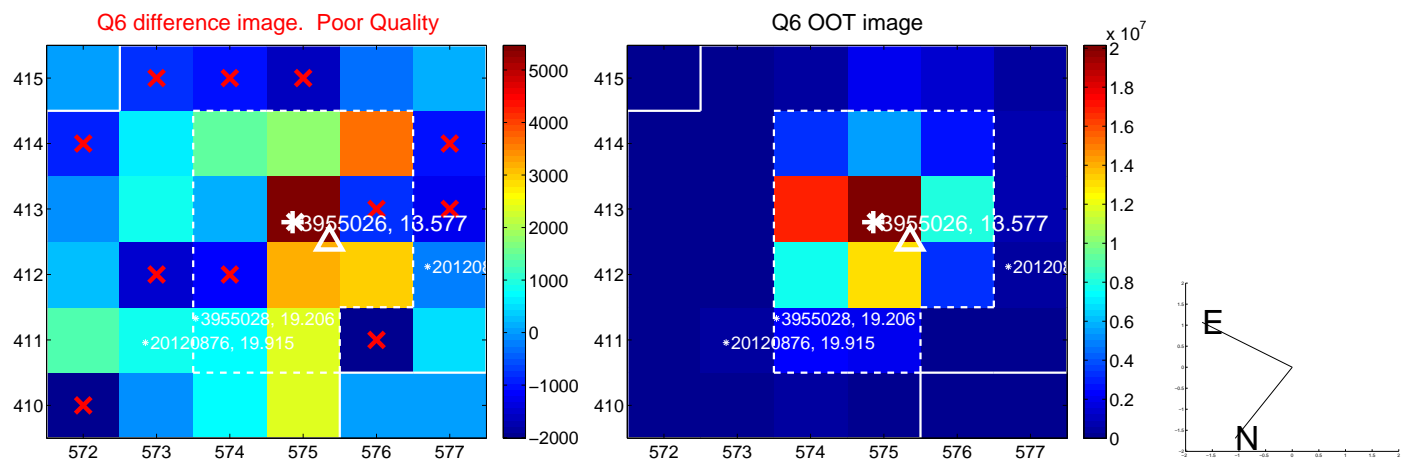
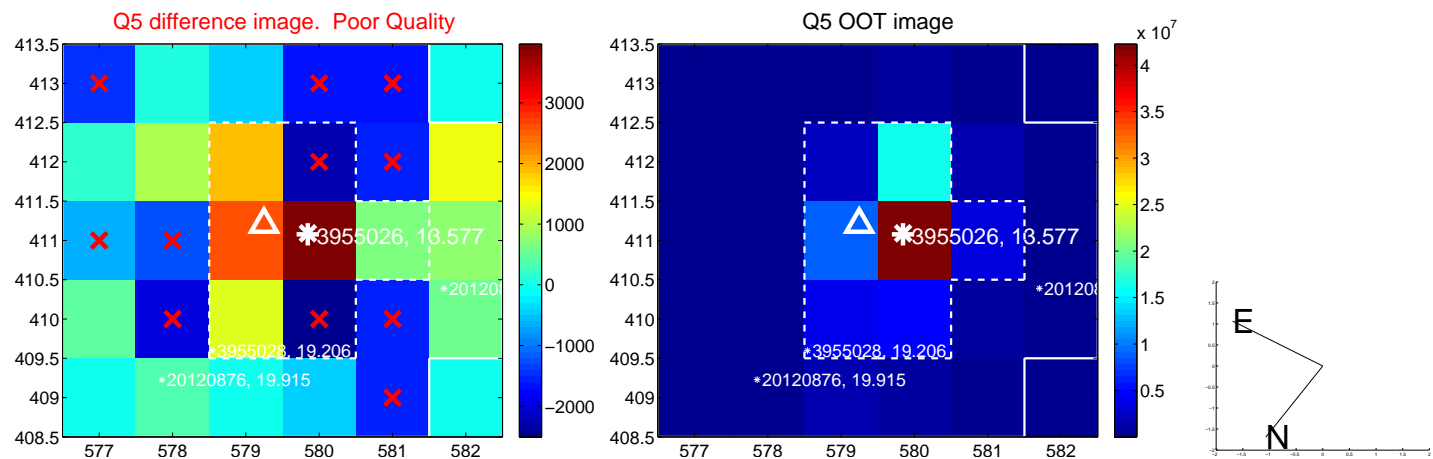


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

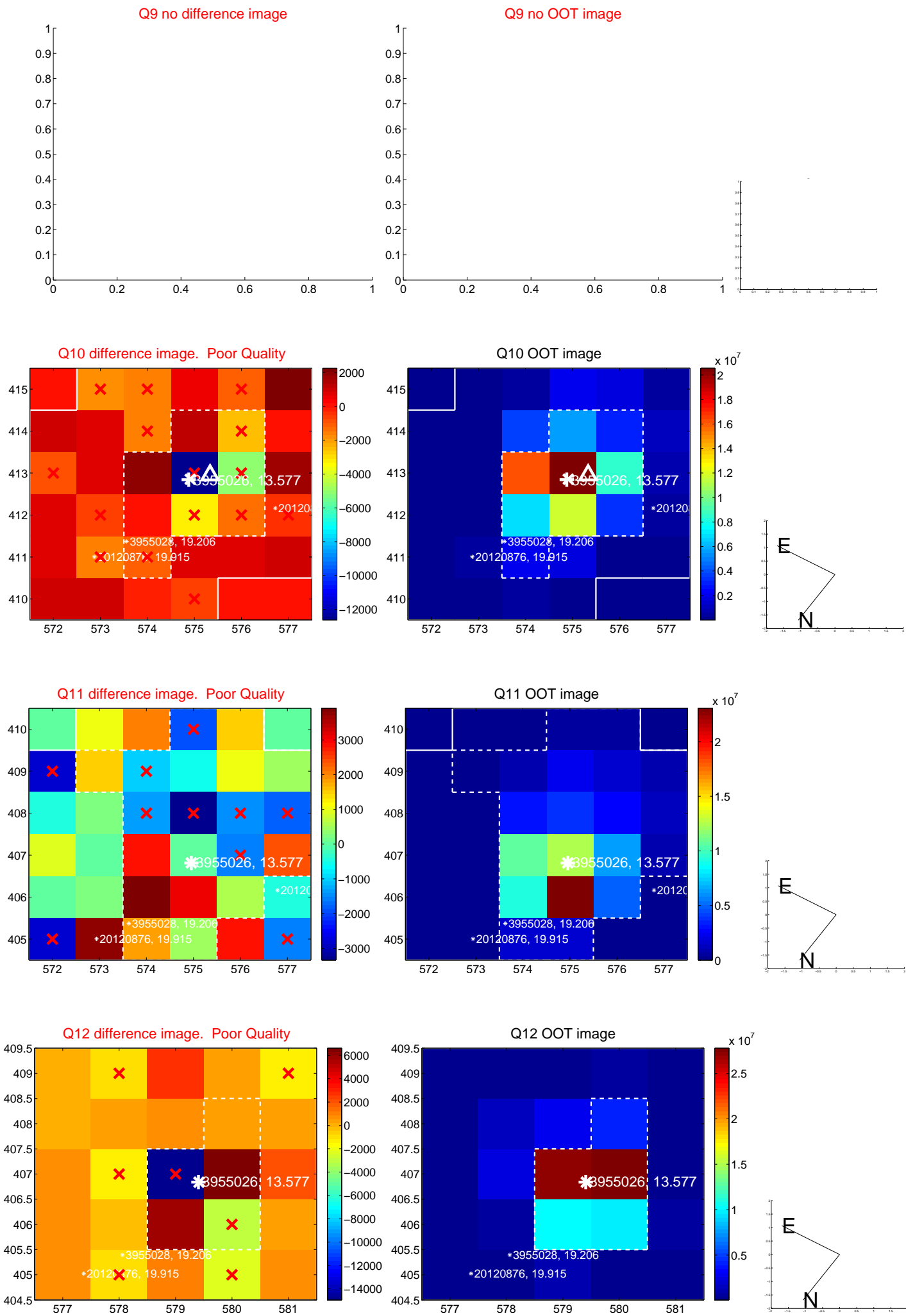
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



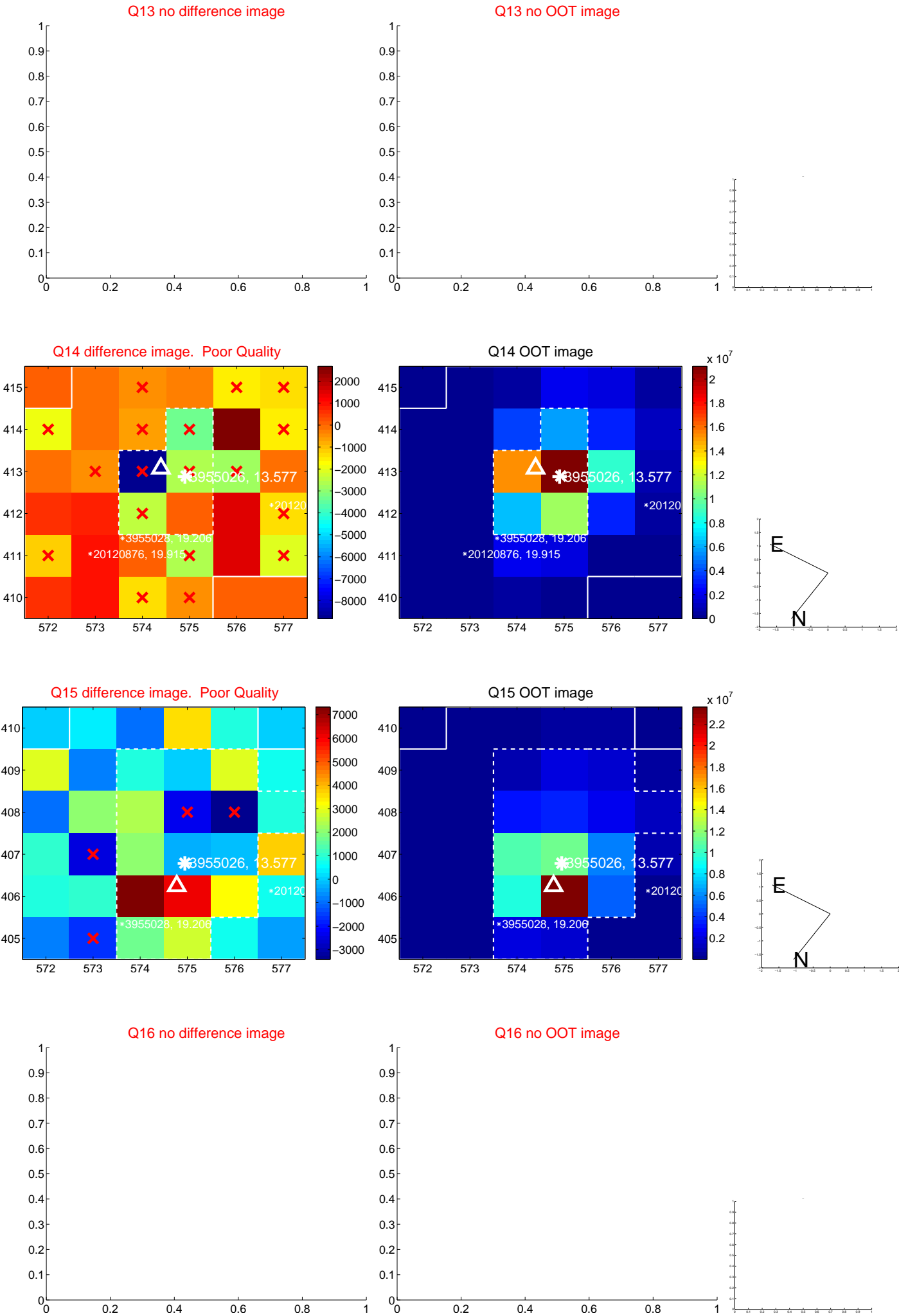
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

