

KIC 004945266

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})
004945266-01	OBS	No	1.197557	131.957025	3.7	7.974	8.7	2.6	1.77	6777	0.36	9611.85
004945266-02	OBS	No	197.254787	190.095347	218.2	4.735	12.6	9.4	1.77	6777	3.11	10.64
004945266-03	OBS	No	43.670555	173.893348	211.0	1.636	11.0	10.5	1.77	6777	2.97	79.48
004945266-04	OBS	No	58.180105	142.246997	118.0	6.605	9.6	8.6	1.77	6777	2.21	54.22
004945266-05	OBS	No	38.216314	166.445720	111.5	7.070	9.2	9.3	1.77	6777	2.06	94.96
004945266-06	OBS	No	239.524693	134.479079	196.6	26.074	10.3	10.2	1.77	6777	2.73	8.22
004945266-07	OBS	No	150.297522	241.464117	179.6	2.319	9.8	9.3	1.77	6777	2.69	15.30
004945266-08	OBS	No	25.564376	143.427468	169.2	1.330	10.0	10.1	1.77	6777	2.33	162.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004945266-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
004945266-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_SATURATED
004945266-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
004945266-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
004945266-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
004945266-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
004945266-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
004945266-08	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_SATURATED

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

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

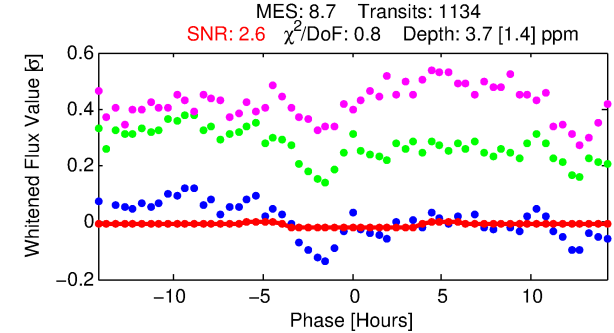
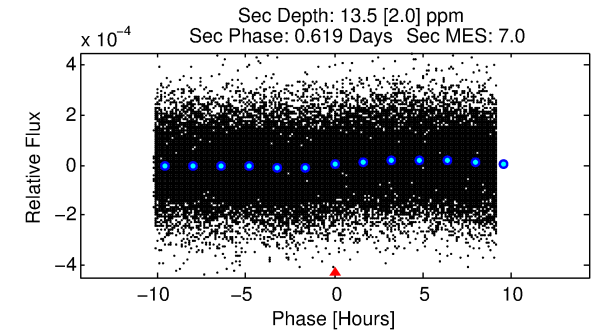
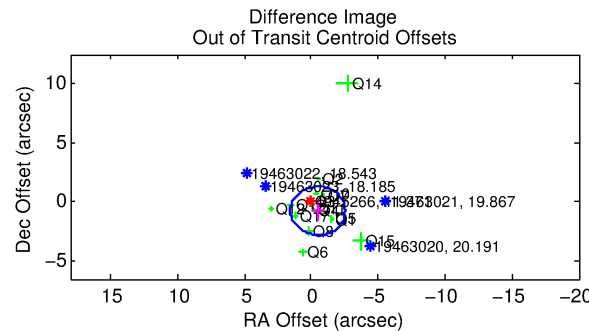
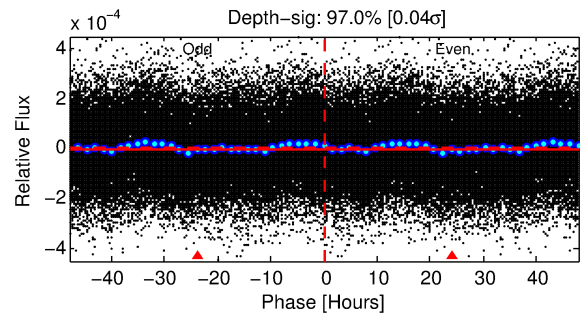
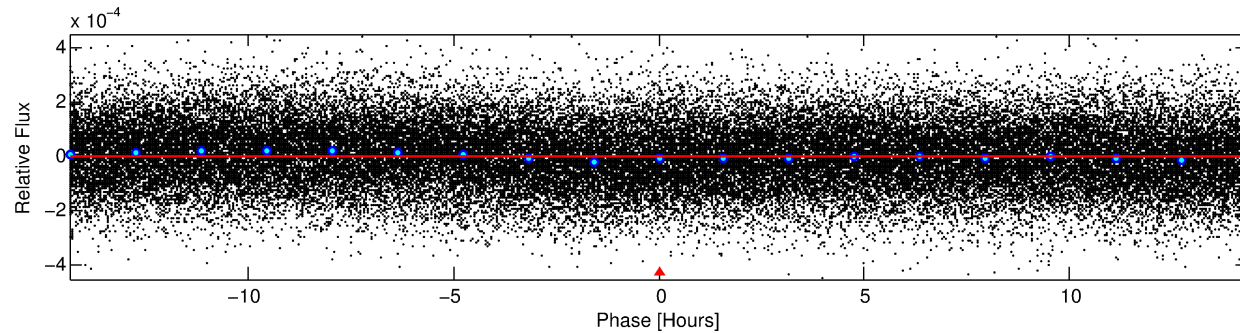
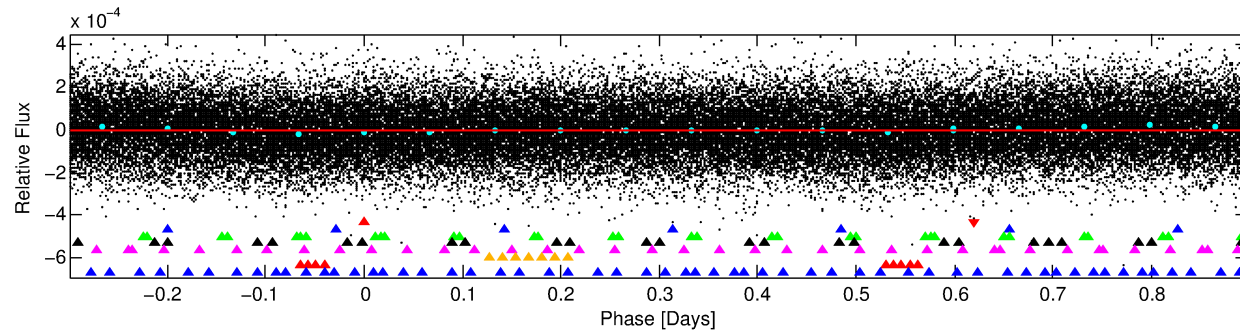
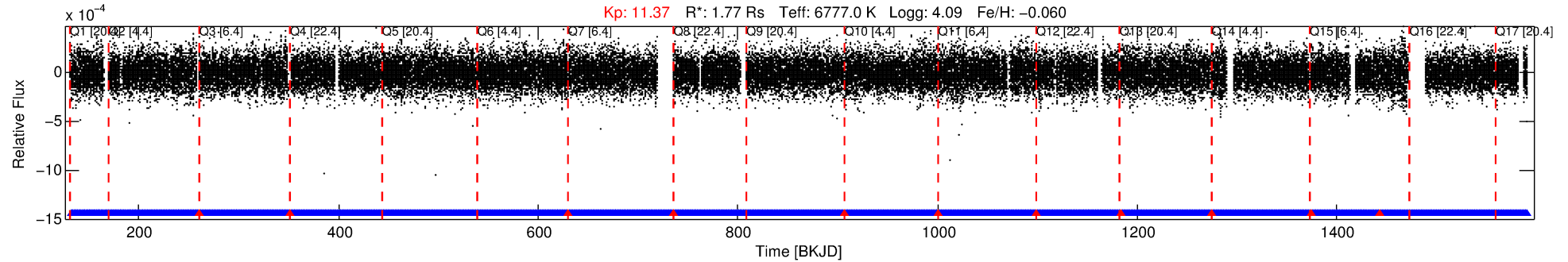
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004945266-01

No Significant Match Found

DV One-Page Summary

KIC: 4945266 Candidate: 1 of 8 Period: 1.198 d



DV Fit Results:

Period = 1.19756 [0.00007] d
Epoch = 131.9570 [0.0181] BKJD
Rp/R* = 0.0019 [0.0011]
a/R* = 1.16 [0.97]
b = 0.71 [2.23]
Seff = 9611.85 [2427.24]
Teq = 2525 [159] K
Rp = 0.37 [0.22] Re
a = 0.0248 [0.0042] AU
Ag = 34.20 [40.77] [0.81 σ]
Teffp = 9440 [2756] K [2.51 σ]

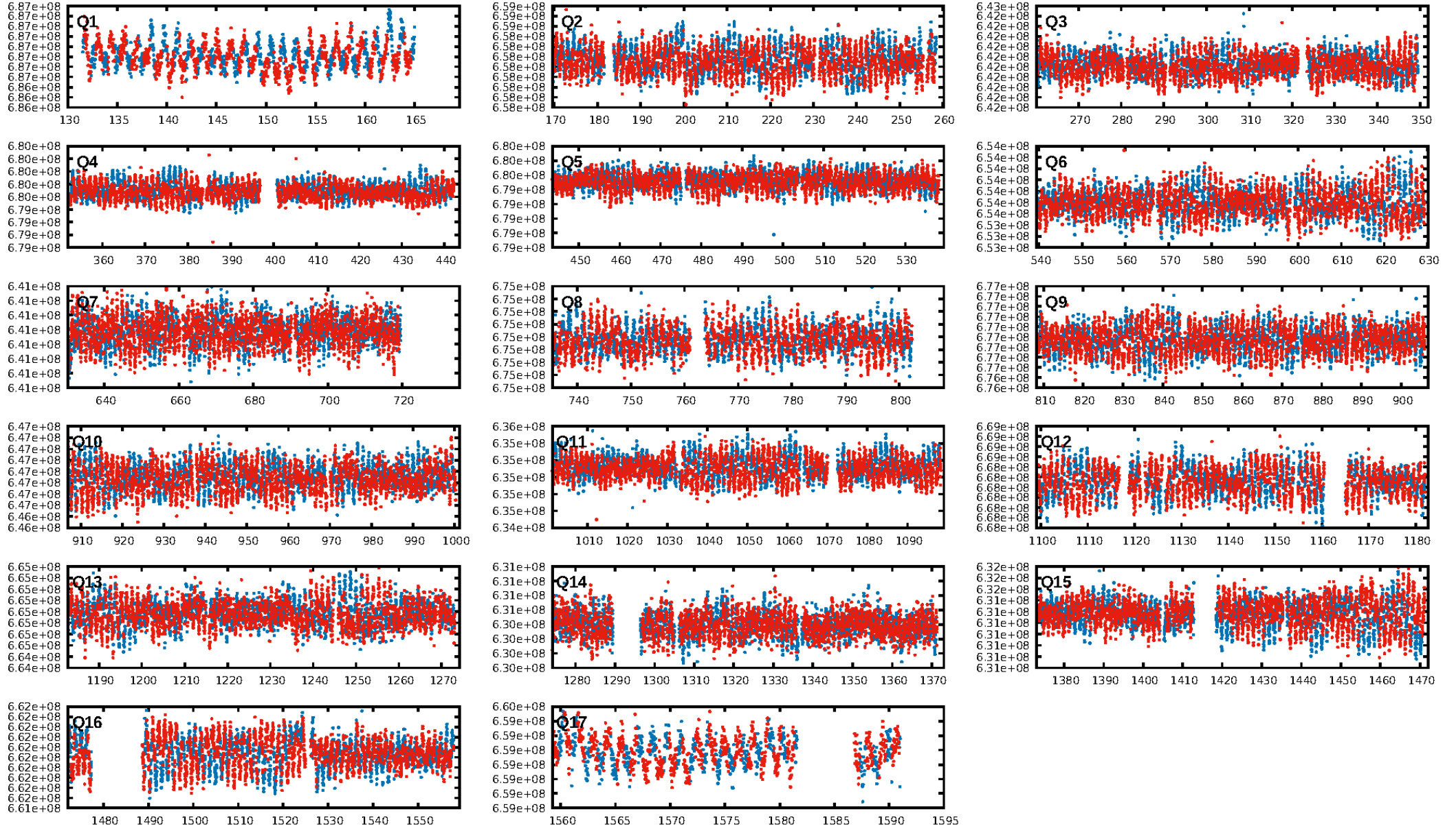
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [72.34 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [1072/1083]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.885 arcsec [1.30 σ]
KicOffset-rm: 0.925 arcsec [1.36 σ]
OotOffset-st: 4/4/3/4 [15]
KicOffset-st: 4/4/3/4 [15]
DiffImageQuality-fgm: 0.73 [11/15]
DiffImageOverlap-fno: 1.00 [17/17]

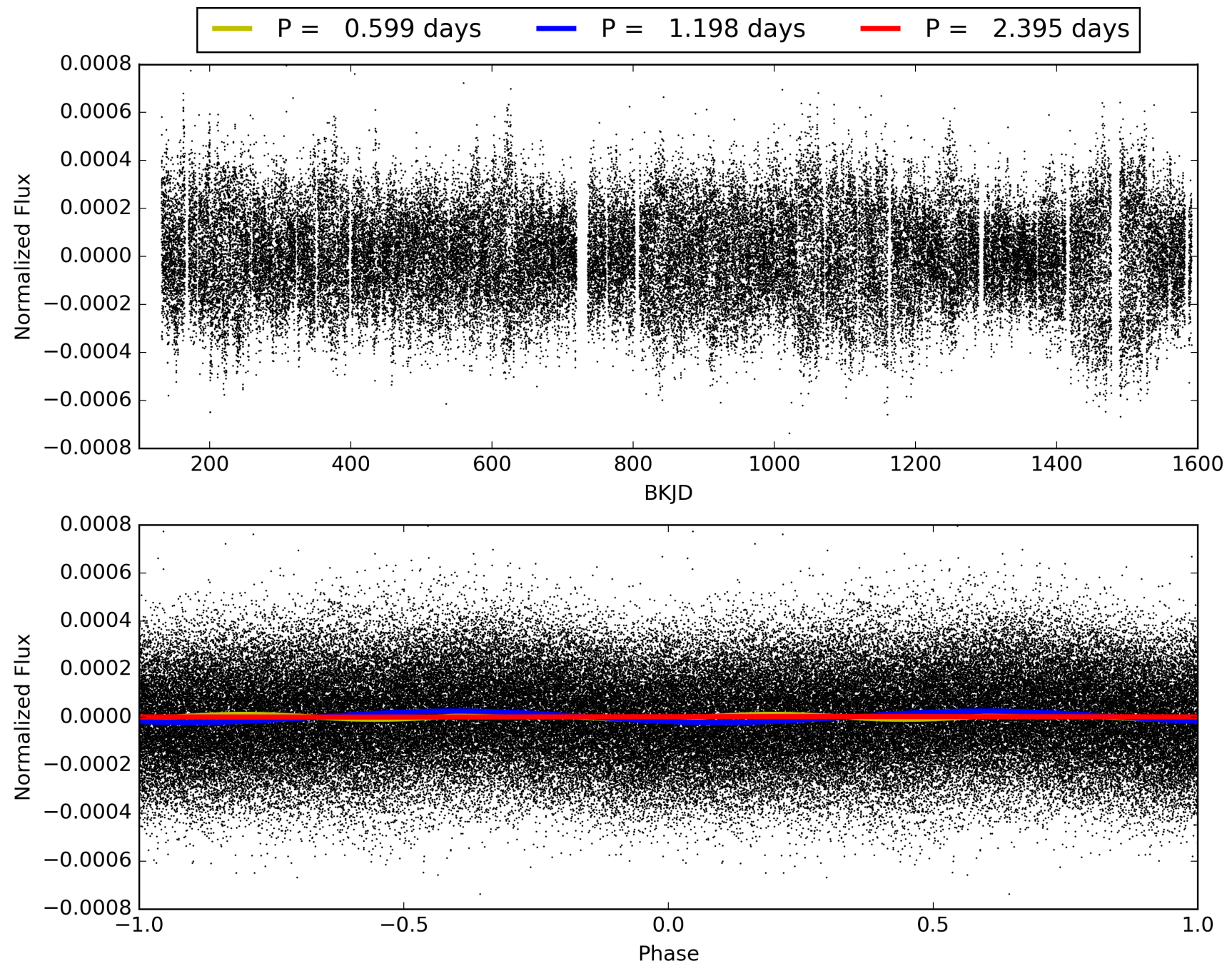
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 004945266-01, PDC Light Curves

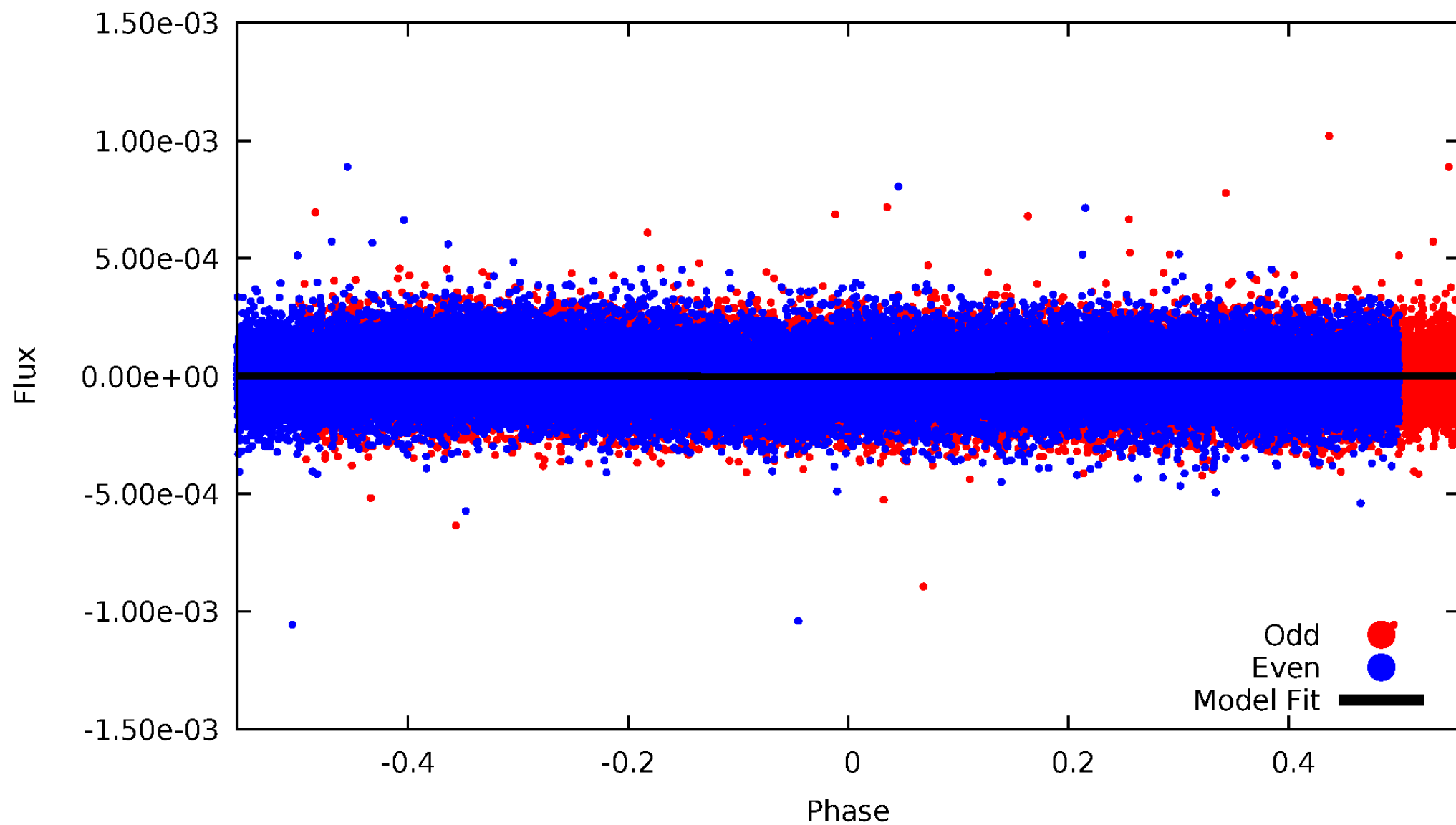


TCE 004945266-01



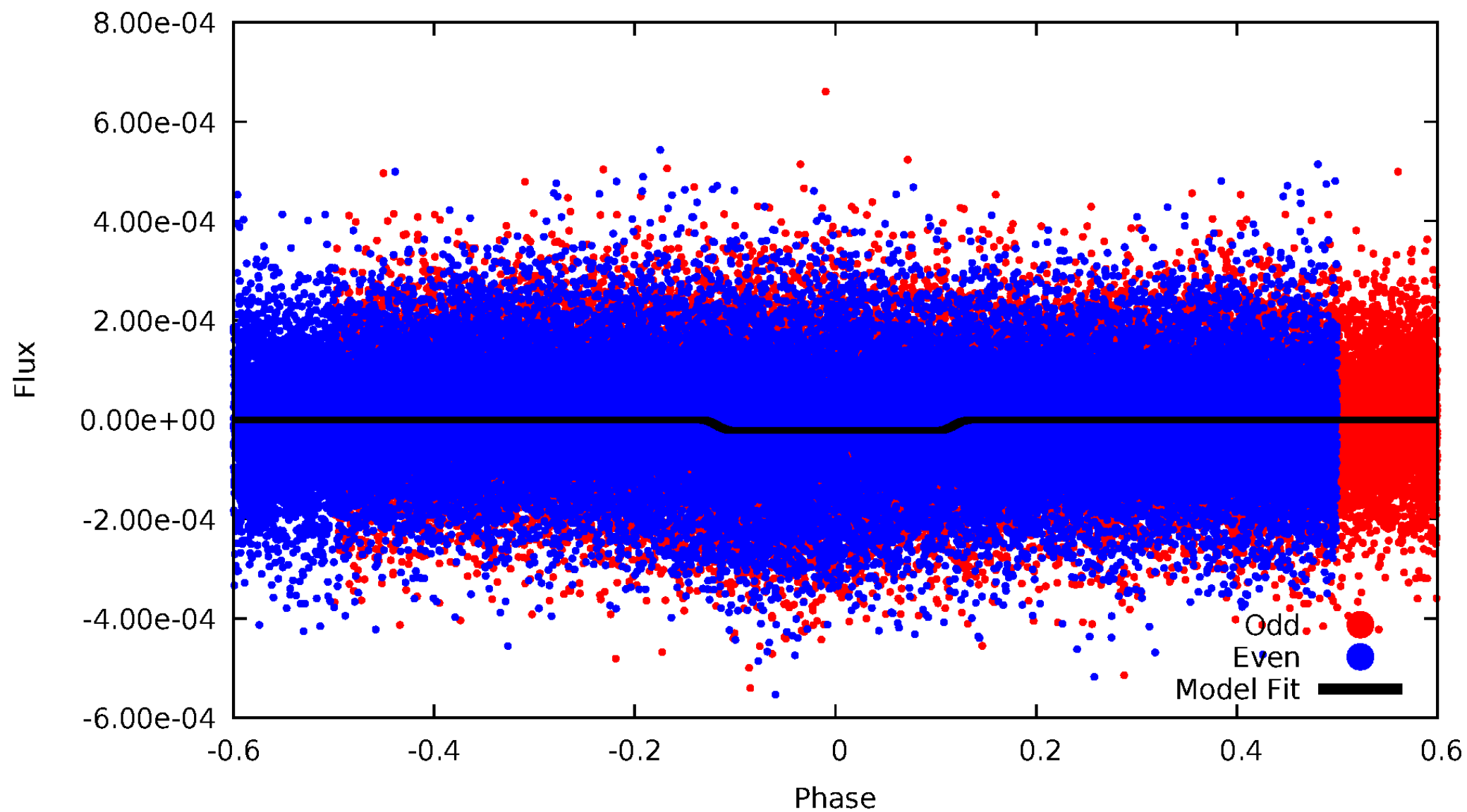
DV Odd/Even

TCE 004945266-01

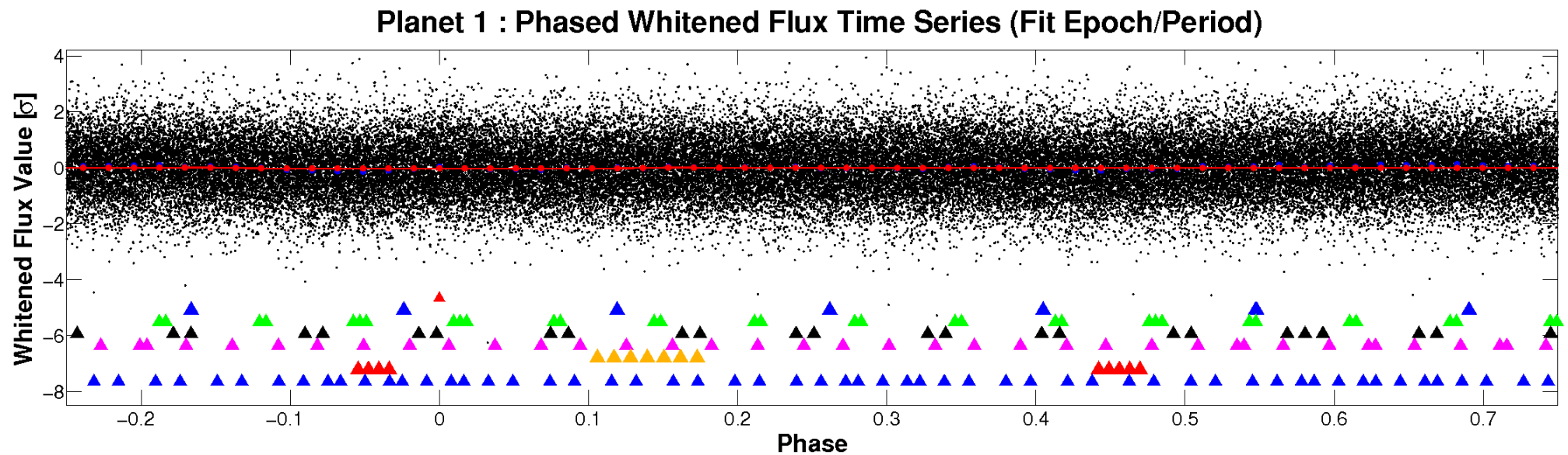
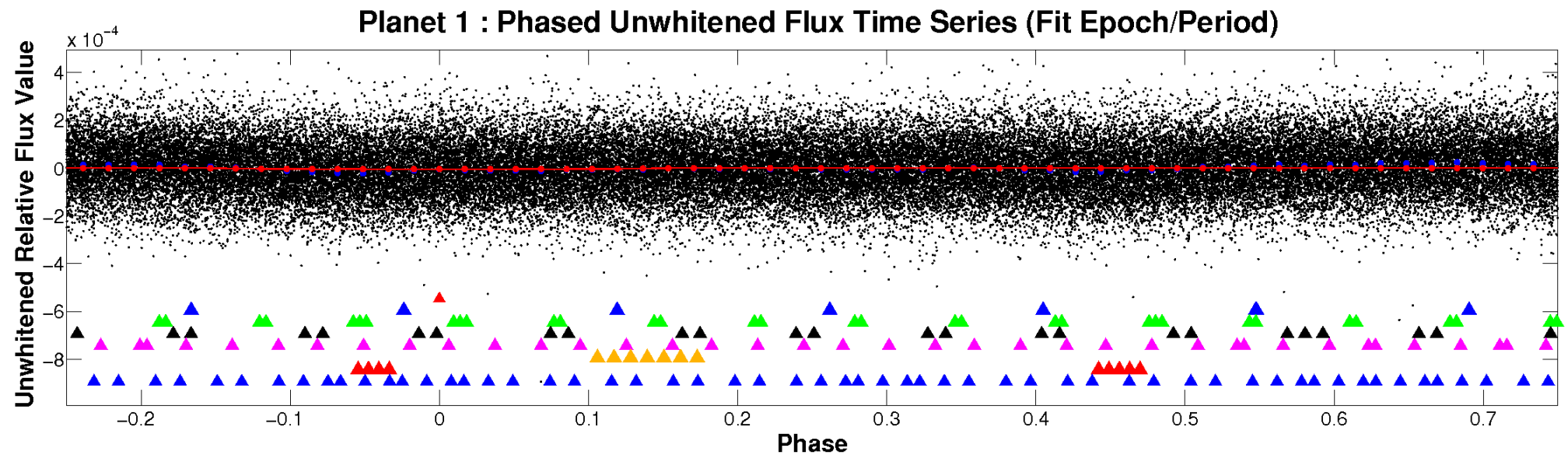


ALT Odd/Even

TCE 004945266-01

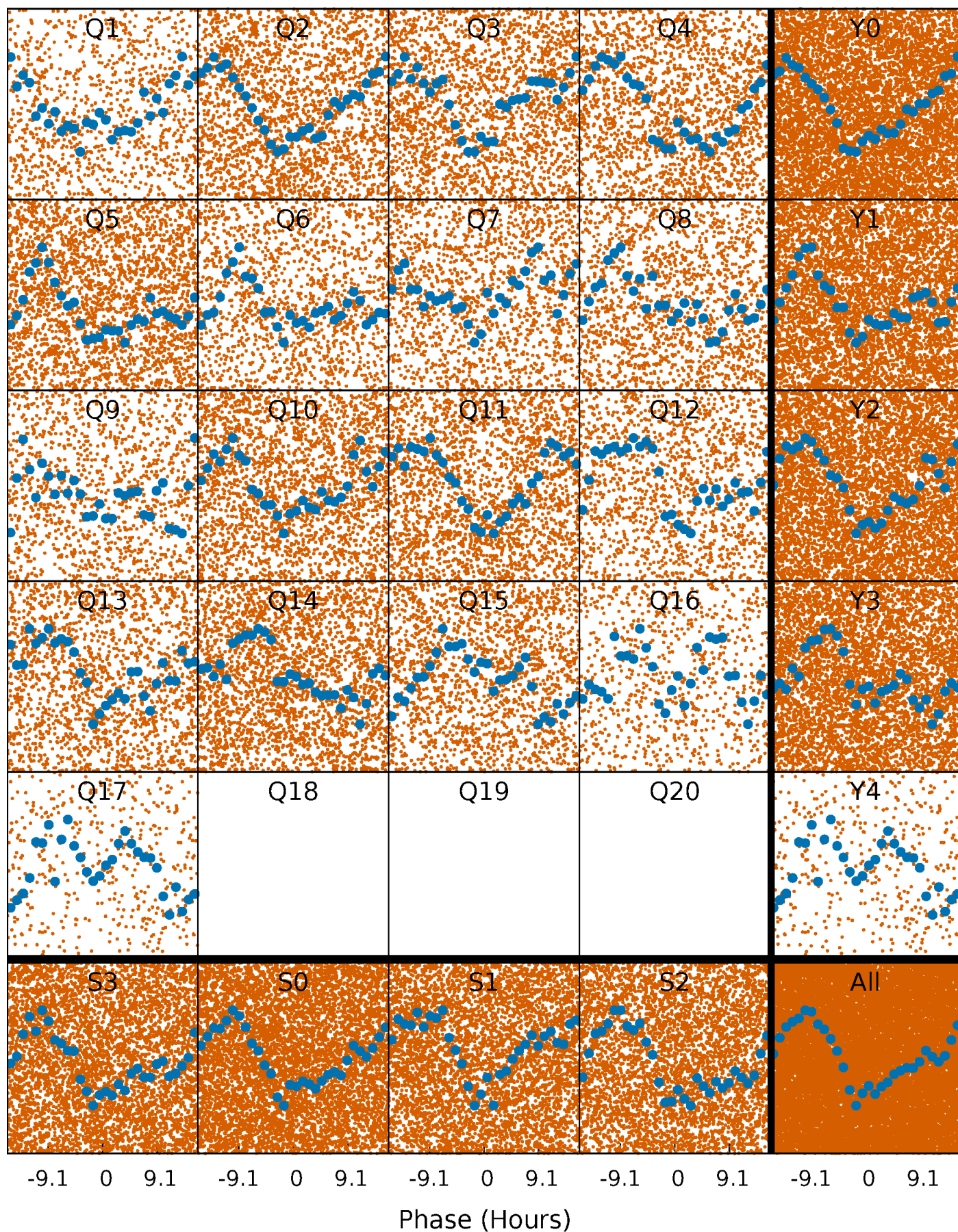


Non-Whitened Vs. Whitened Light Curve



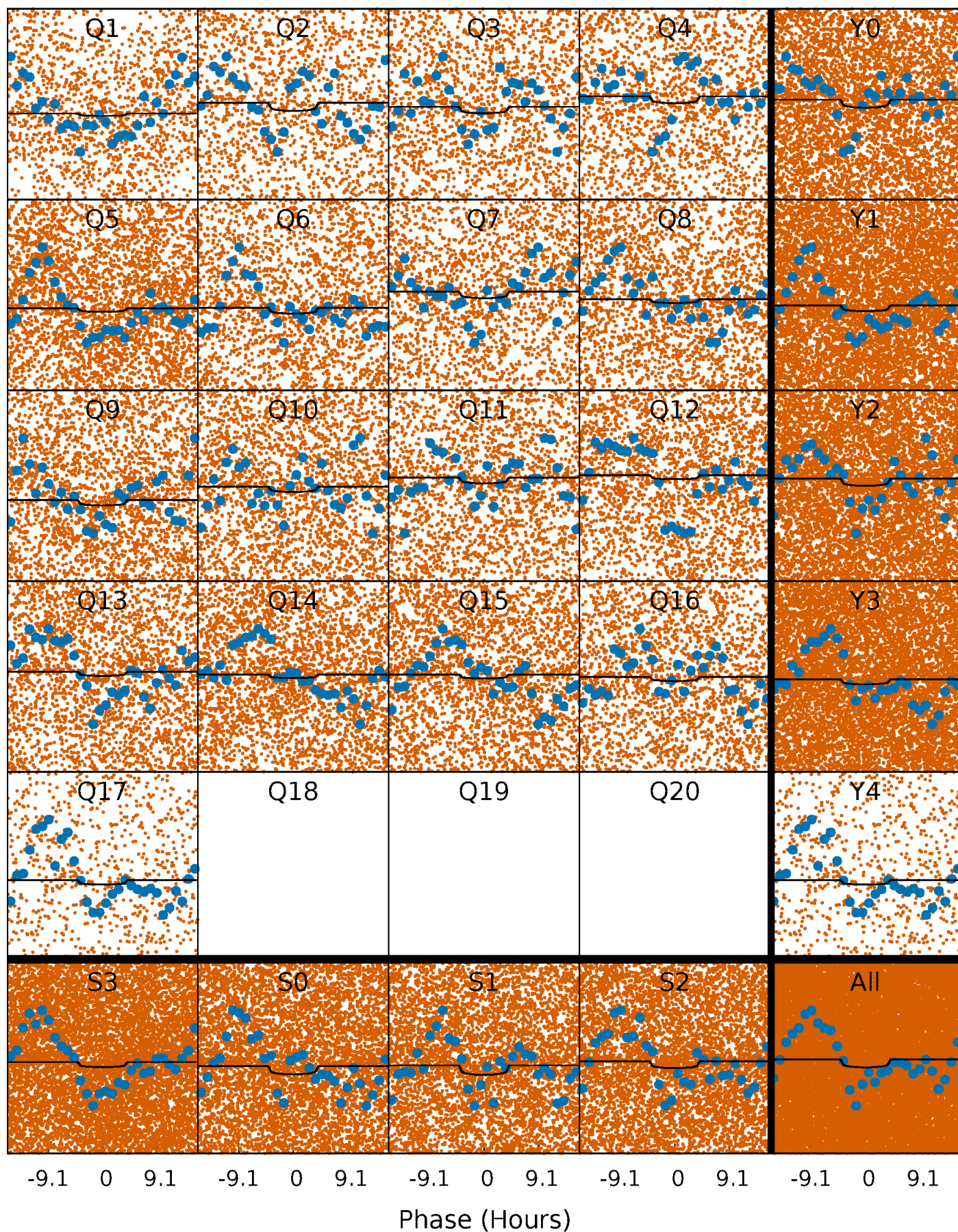
PDC Quarter-Phased Transit Curves

TCE 004945266-01 P= 1.197557 Days $T_0=131.957025$ (BKJD)



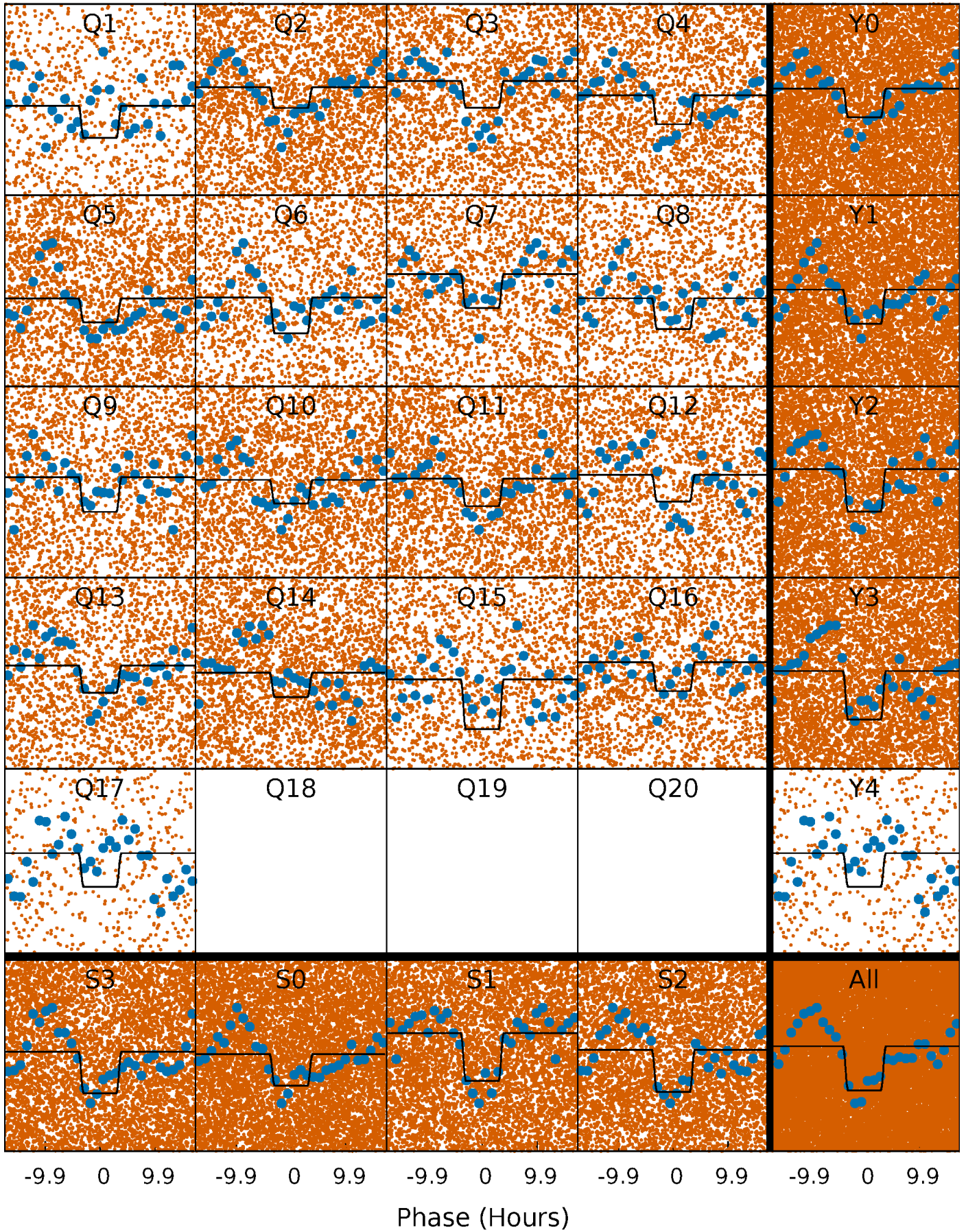
DV Quarter-Phased Transit Curves

TCE 004945266-01 P= 1.197557 Days $T_0=131.957025$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

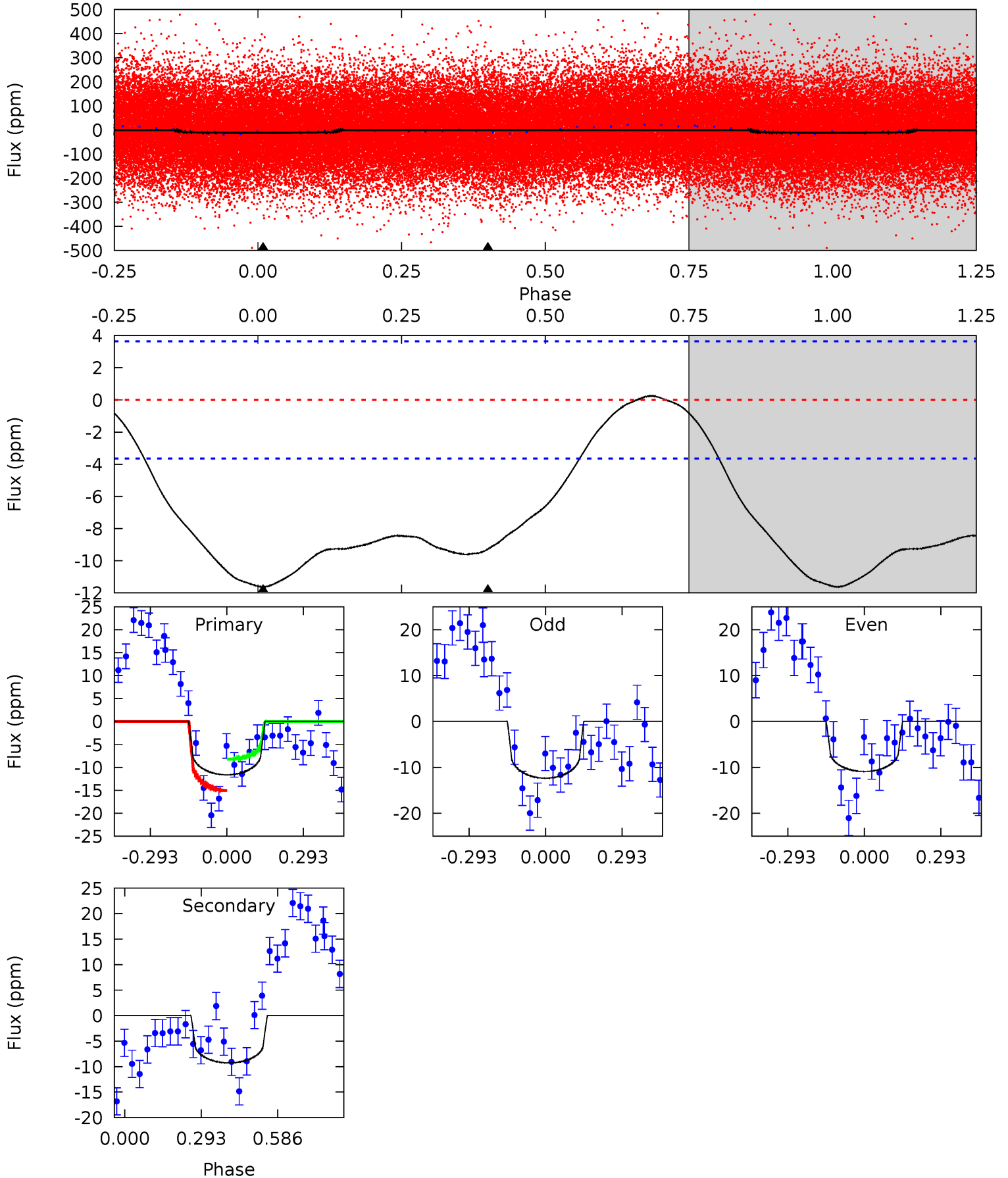
TCE 004945266-01 P= 1.197612 Days $T_0=131.907630$ (BKJD)



DV Model-Shift Uniqueness Test

004945266-01, P = 1.197557 Days, E = 130.759468 Days

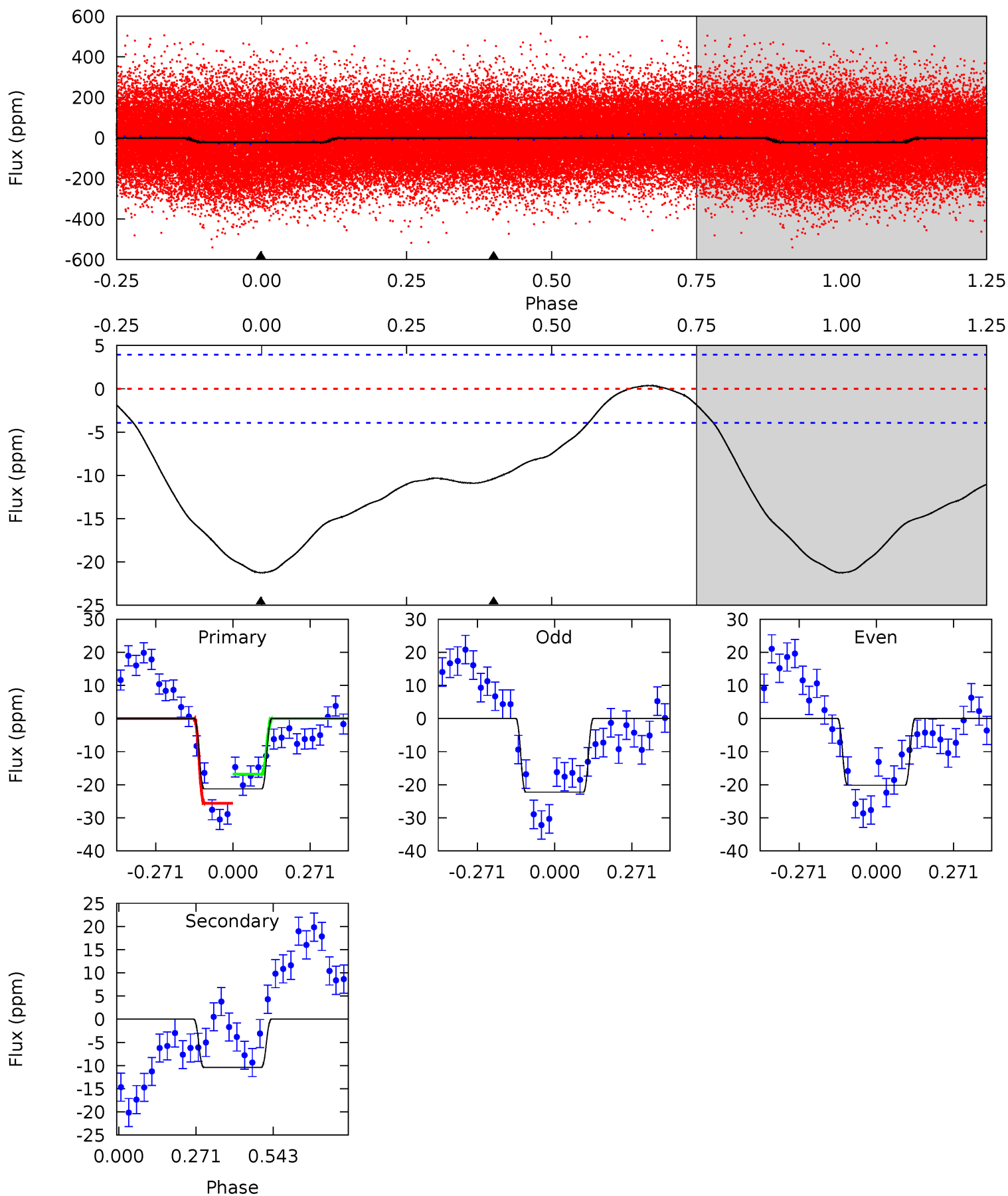
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.8	11.0	0	0	4.33	1.05	0.40	13.8	13.8	11.0	11.0	0.87	1.10	0.02	4.15



Alt Model-Shift Uniqueness Test

004945266-01, P = 1.197612 Days, E = 130.710018 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.4	11.5	0	0	4.35	1.10	0.69	23.4	23.4	11.5	11.5	1.16	0.98	0.02	4.85



Stellar Parameters For KIC 004945266

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6777^{+71}_{-91}	$4.094^{+0.135}_{-0.135}$	$-0.060^{+0.150}_{-0.150}$	$1.767^{+0.355}_{-0.323}$	$1.422^{+0.116}_{-0.129}$	$0.363^{+0.234}_{-0.142}$
	+1%/-1%	+3%/-3%	+250%/-250%	+20%/-18%	+8%/-9%	+64%/-39%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 004945266-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-9 ± 1	$0.37^{+0.21}_{-0.19}$	3529^{+174}_{-164}	8916^{+7867}_{-2088}	24^{+78}_{-14}
Alt.	-10 ± 1	$0.91^{+0.22}_{-0.23}$	3529^{+174}_{-177}	5503^{+858}_{-511}	$4.327^{+3.370}_{-1.663}$

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 $A_{obs} \gg 1.0$

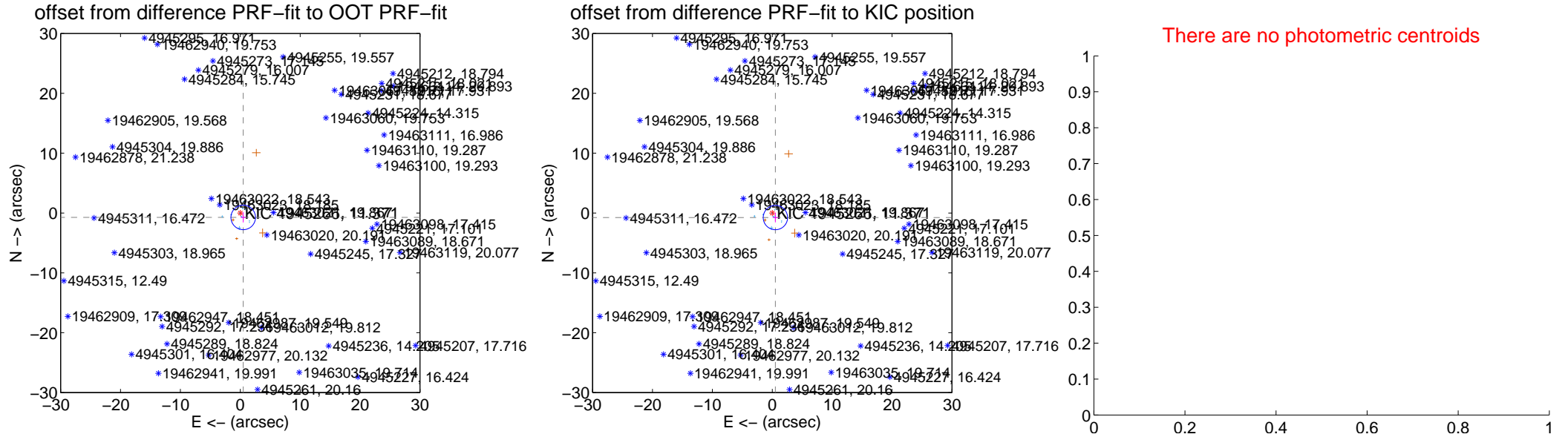
DV Centroid Data

Supplemental centroid analysis for 004945266-01. **Kepler magnitude: 11.37**. Transit SNR 2.61

There are 11 quarters with good PRF difference image offsets

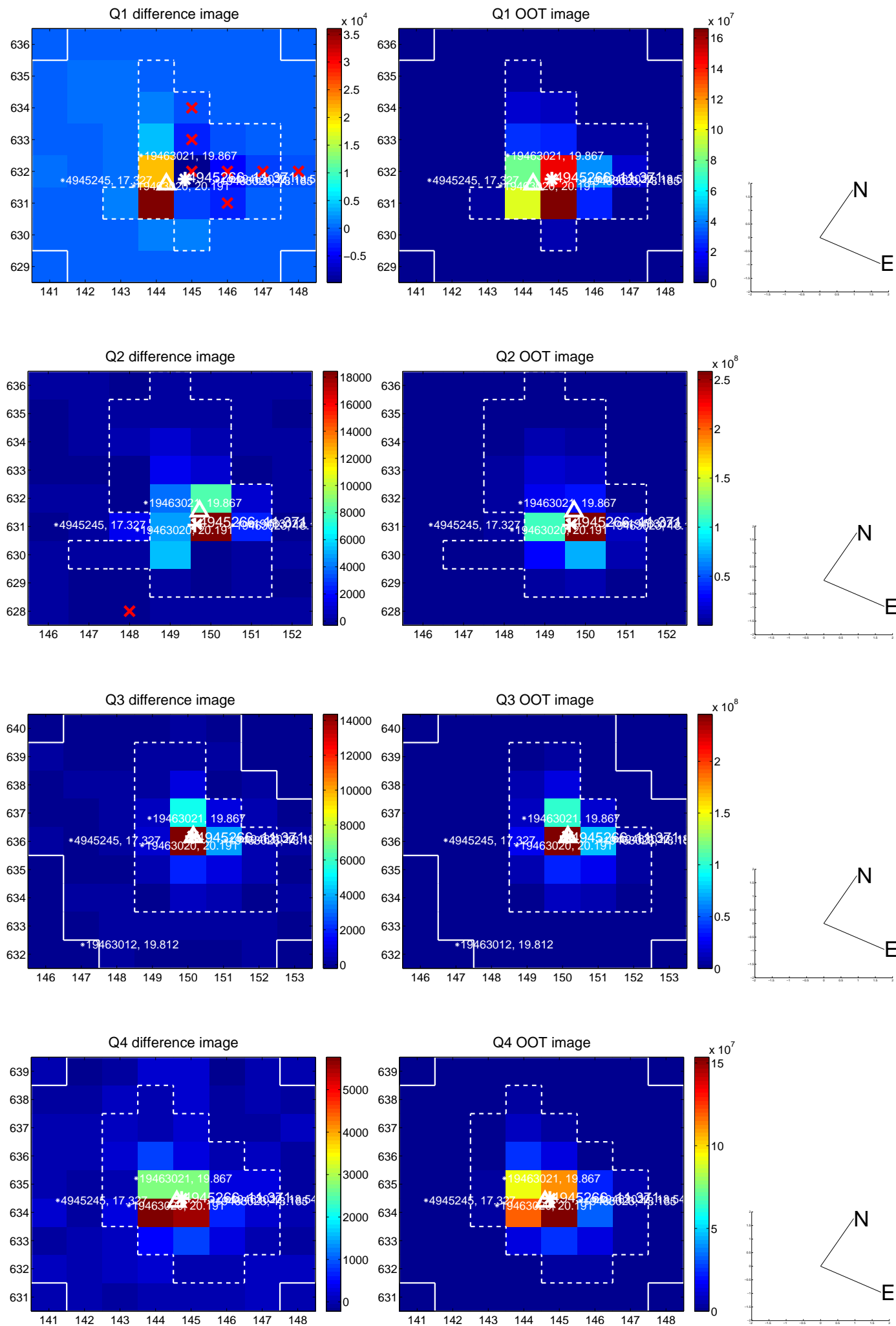
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.885 ± 0.683	1.30	-0.490 ± 0.419	-0.737 ± 0.852
PRF-fit source offset from KIC position	0.925 ± 0.677	1.36	-0.525 ± 0.444	-0.761 ± 0.814
photometric centroid source offset	—	—	—	—

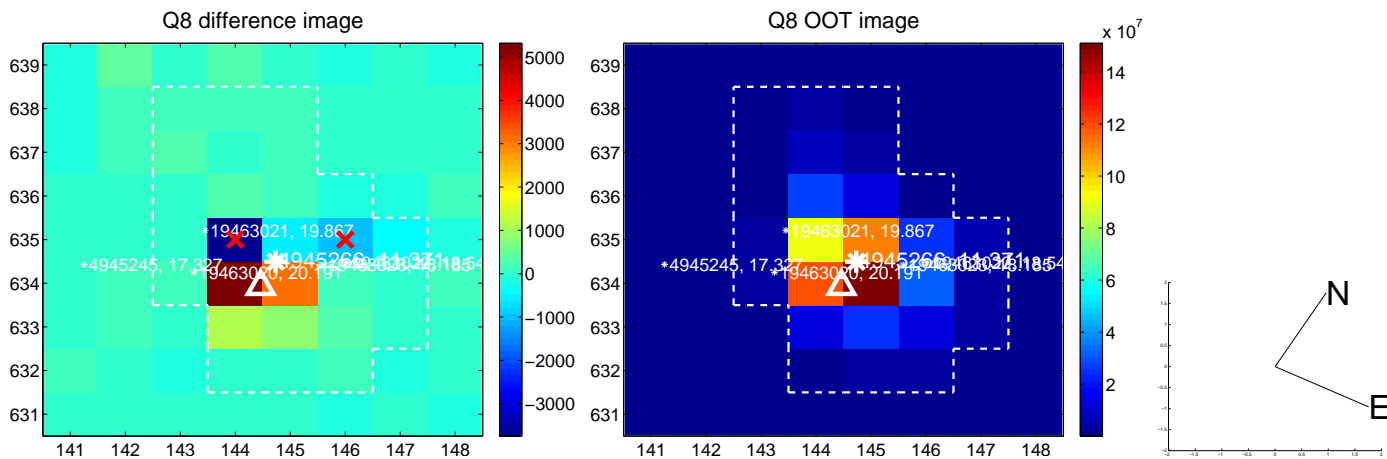
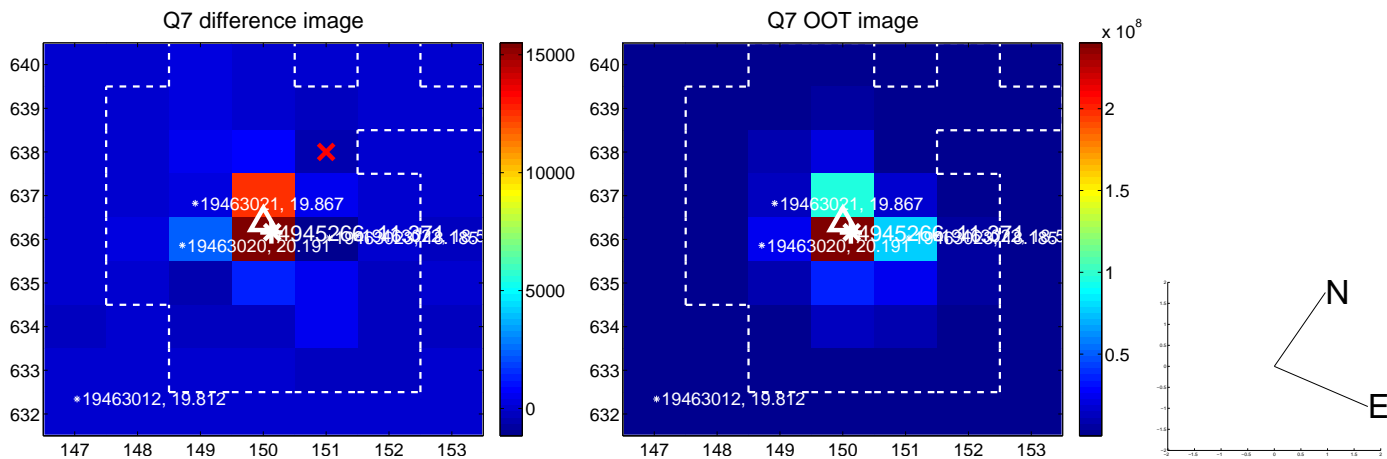
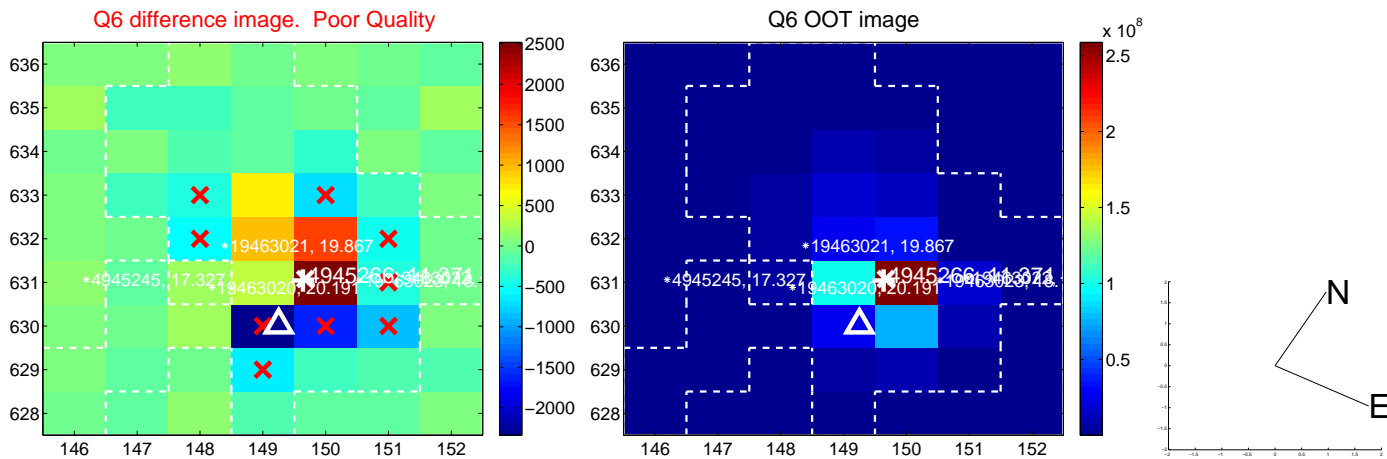
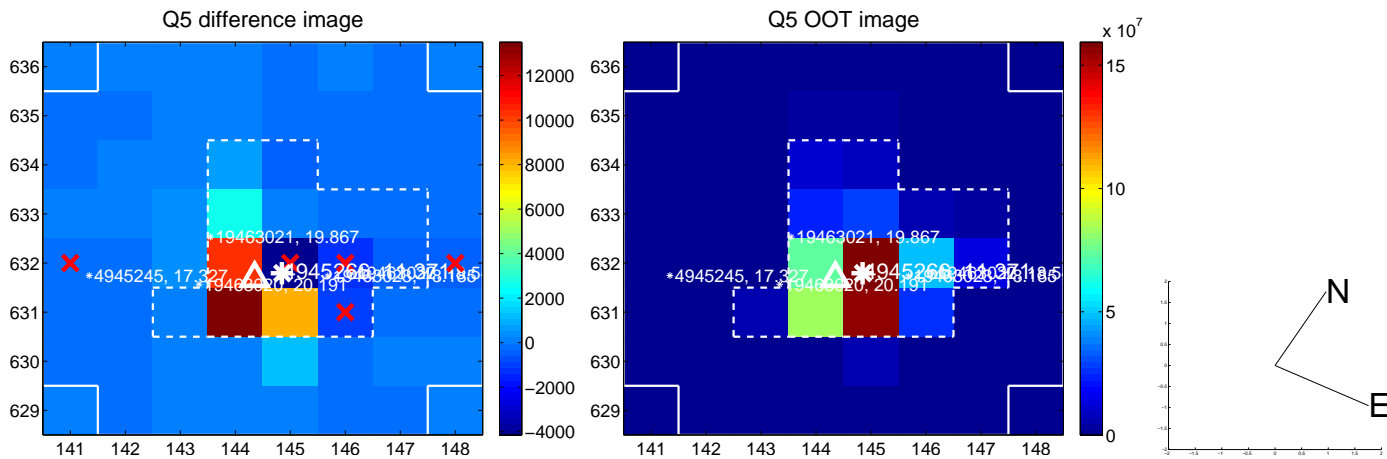


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

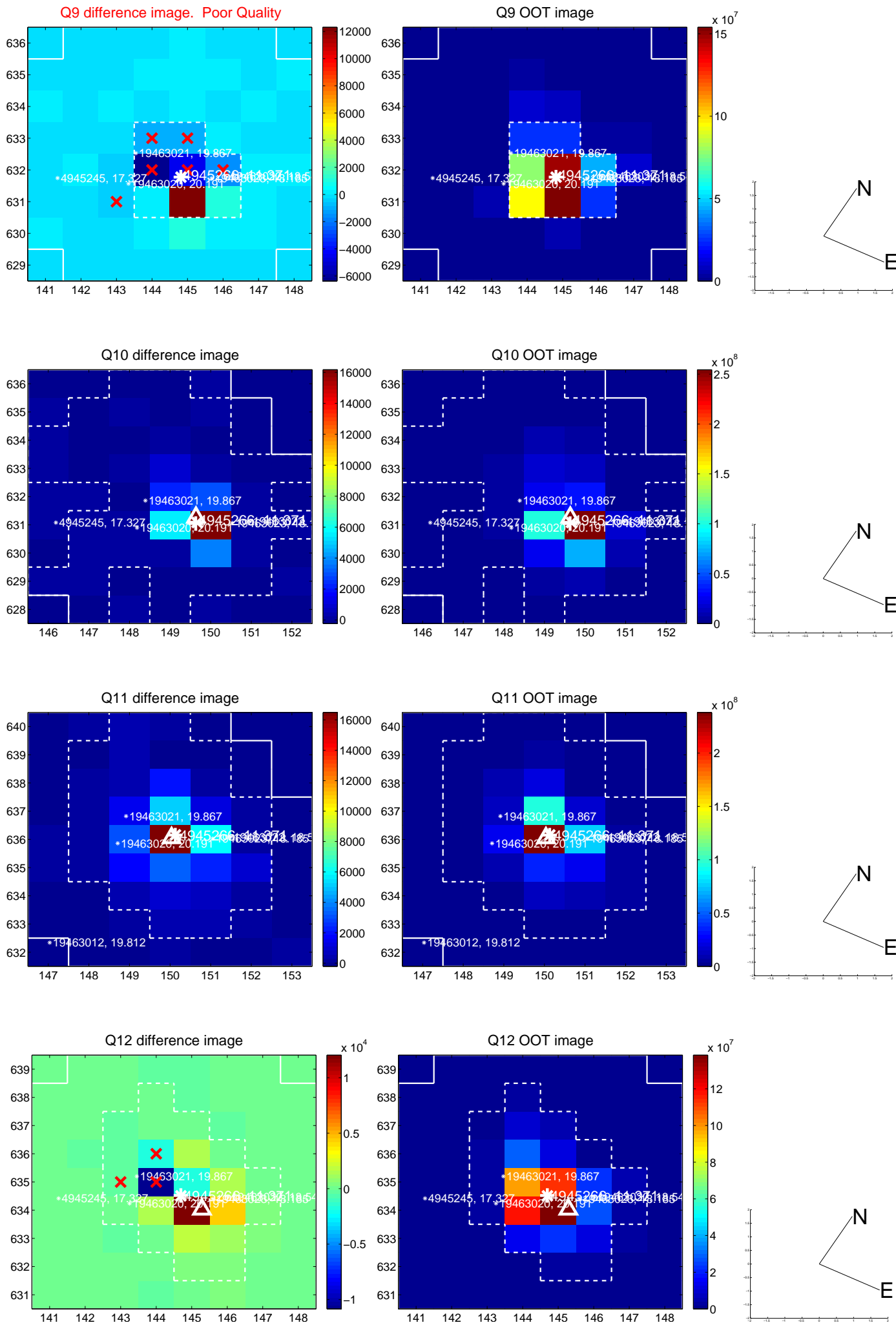
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



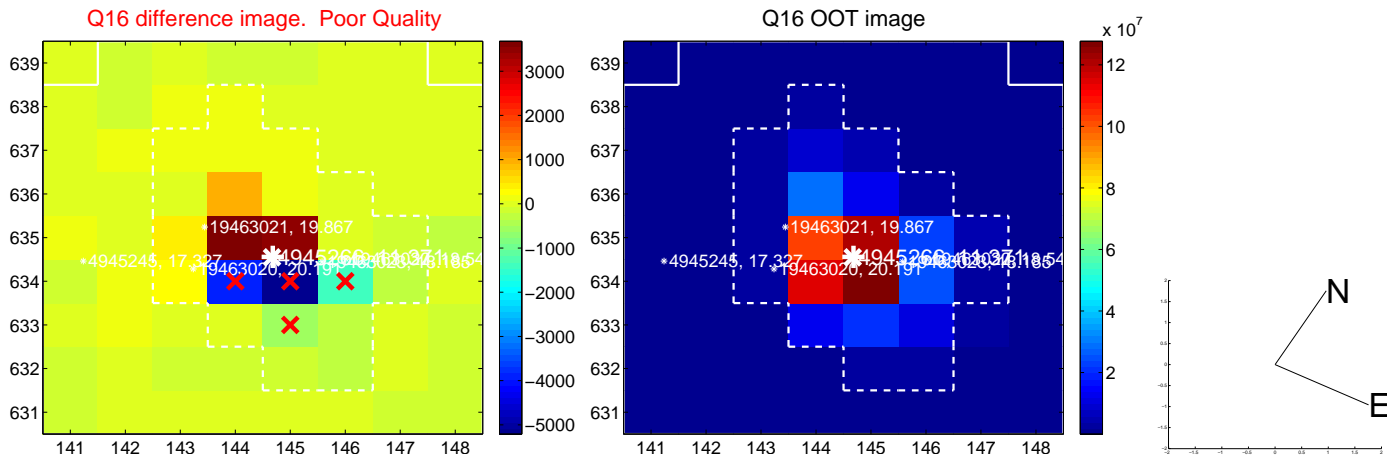
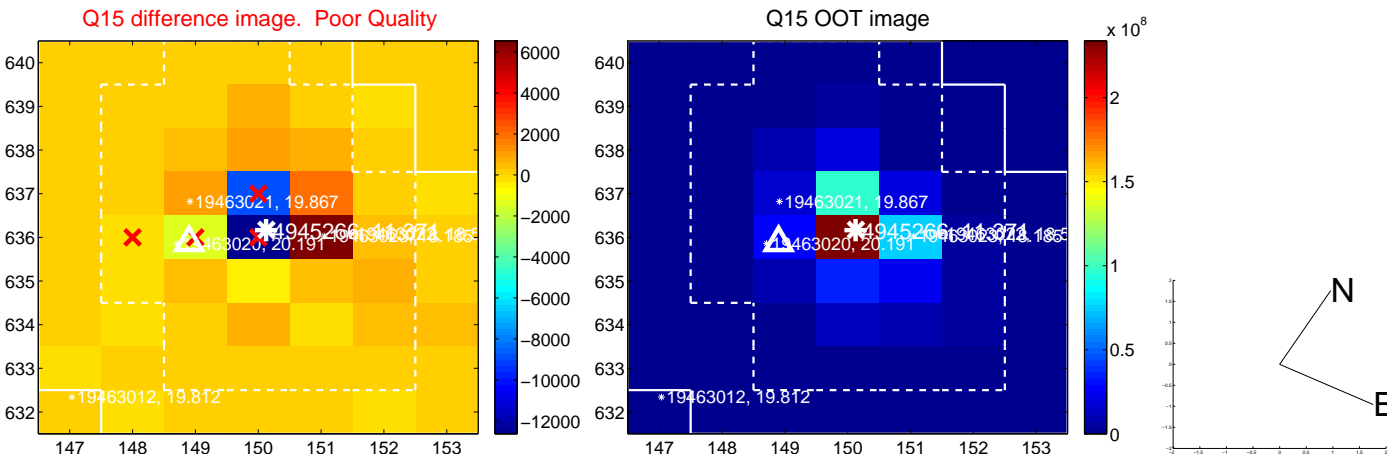
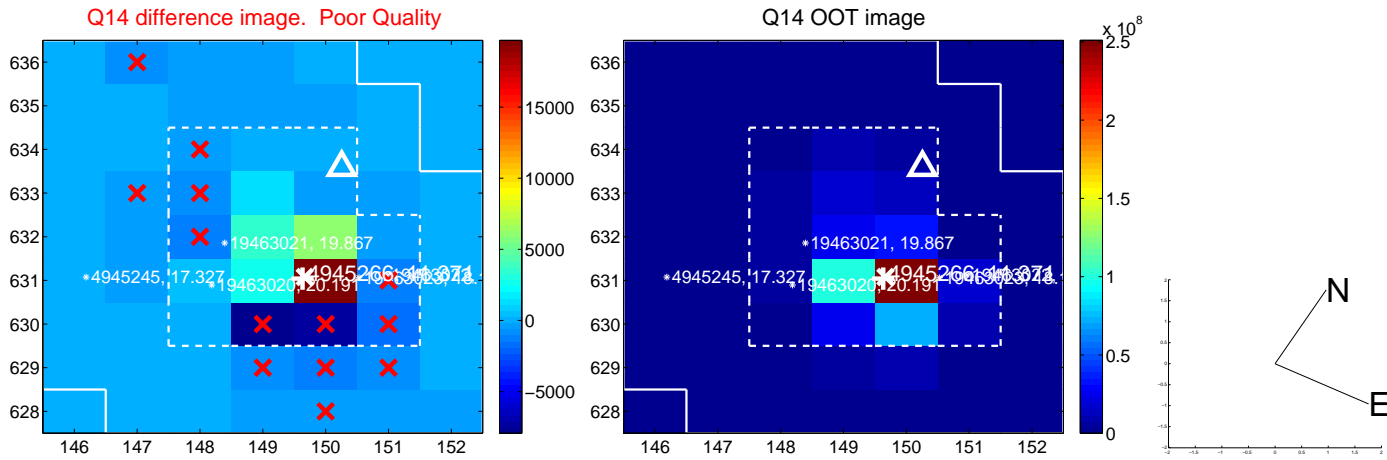
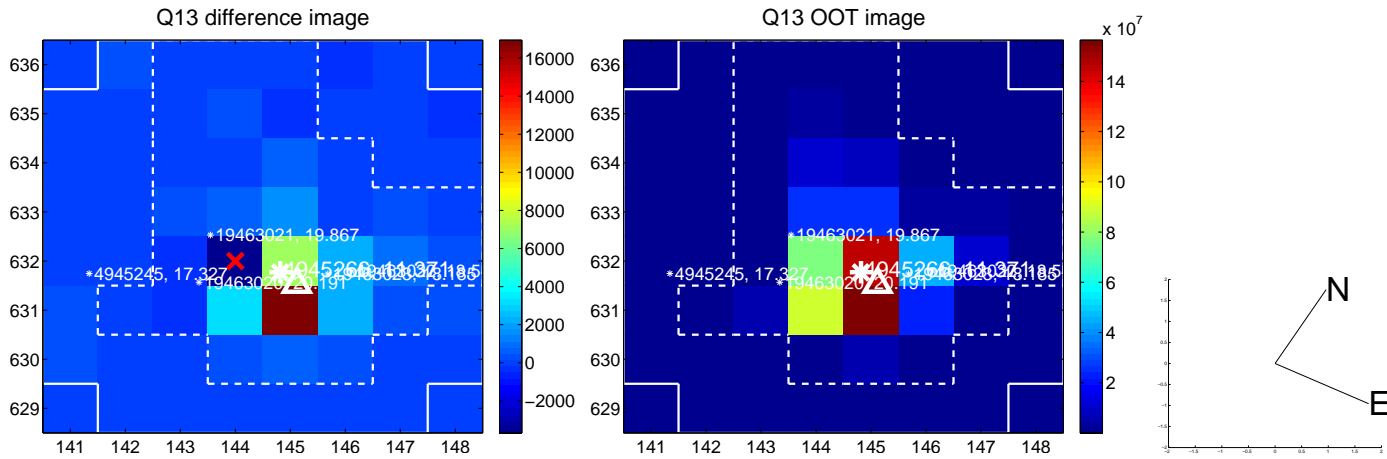
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



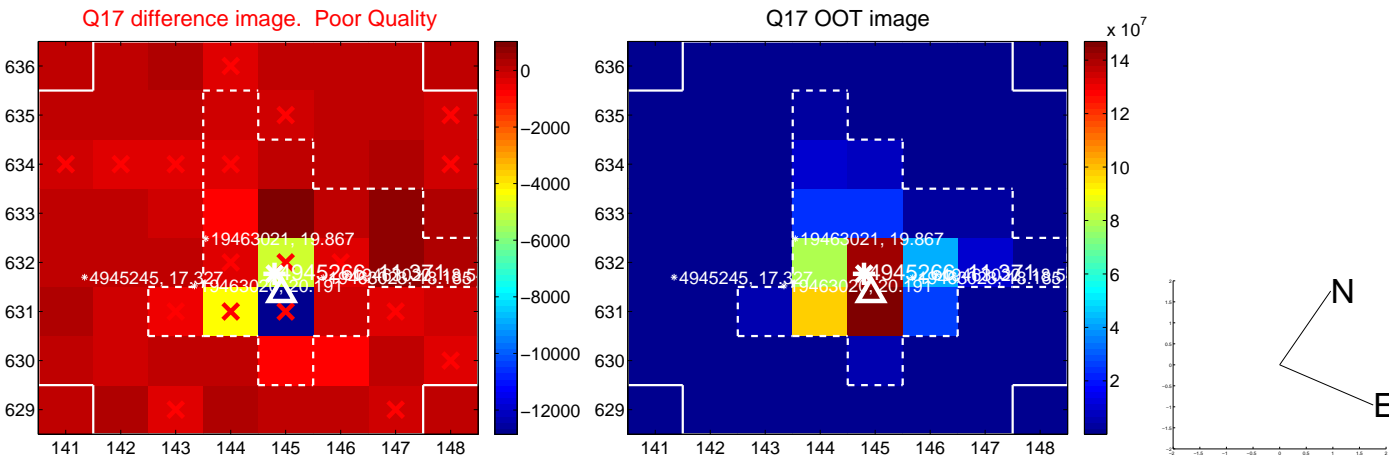
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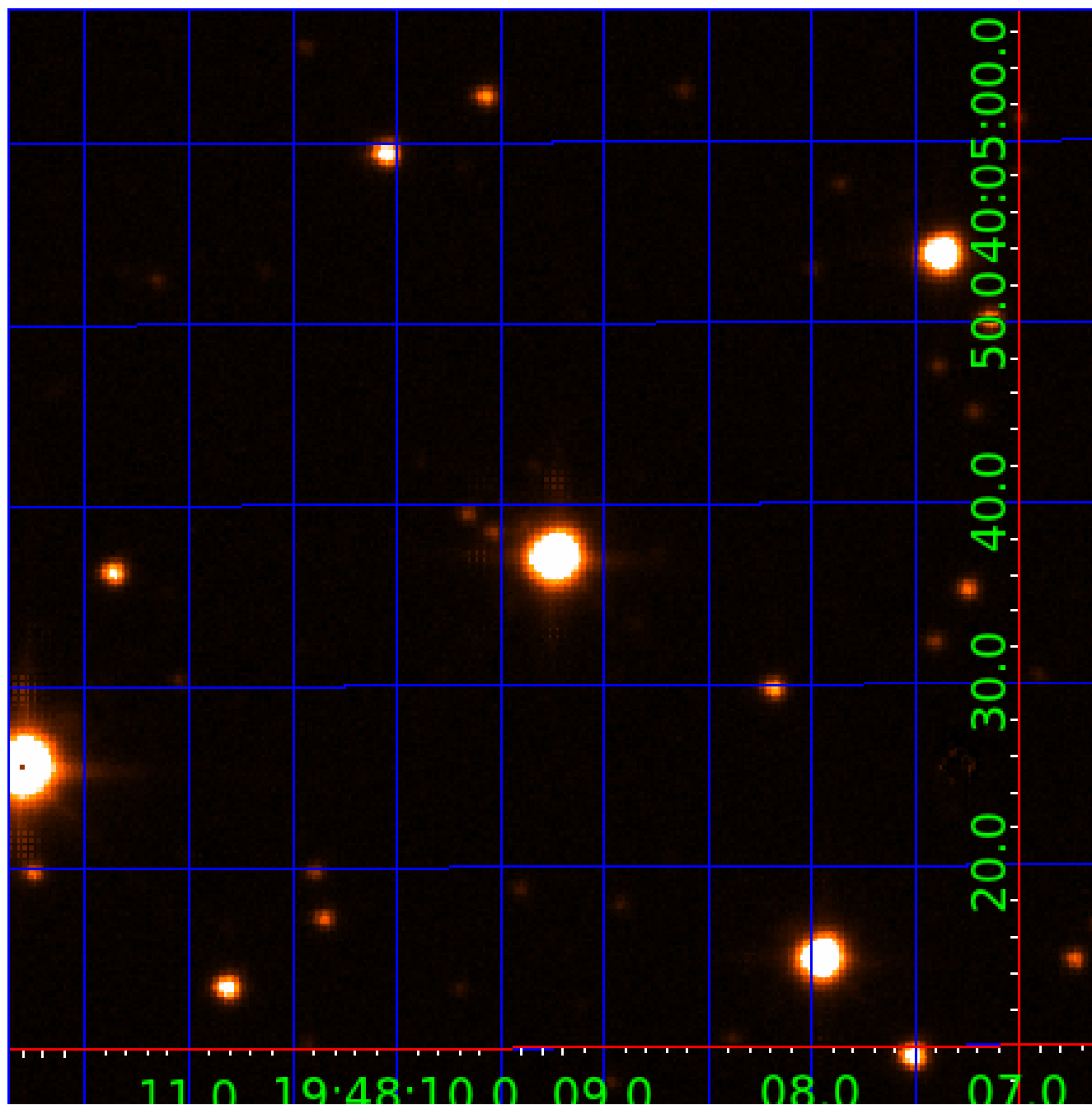
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 004945266

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})
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004945266-03	OBS	No	43.670555	173.893348	211.0	1.636	11.0	10.5	1.77	6777	2.97	79.48
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004945266-05	OBS	No	38.216314	166.445720	111.5	7.070	9.2	9.3	1.77	6777	2.06	94.96
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004945266-08	OBS	No	25.564376	143.427468	169.2	1.330	10.0	10.1	1.77	6777	2.33	162.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004945266-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
004945266-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_SATURATED
004945266-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
004945266-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
004945266-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
004945266-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
004945266-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
004945266-08	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_SATURATED

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

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

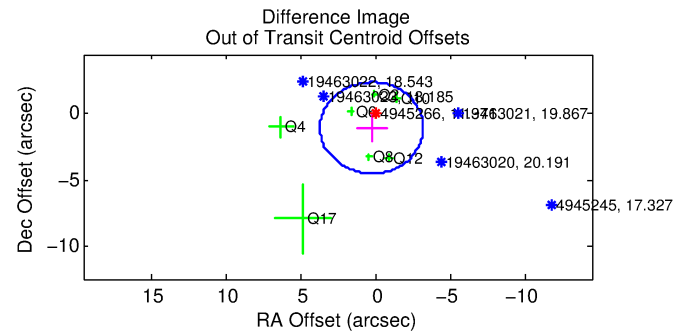
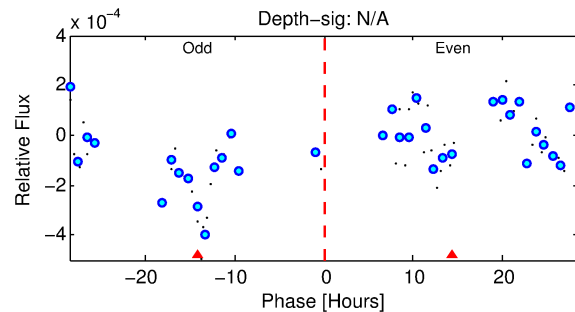
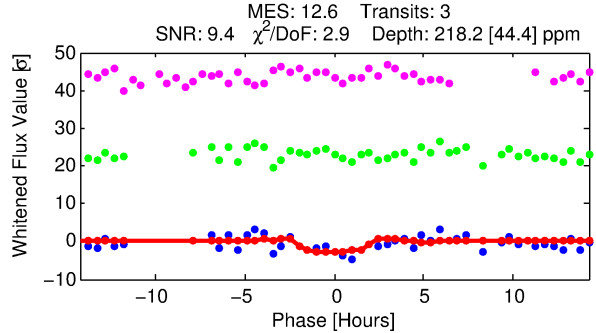
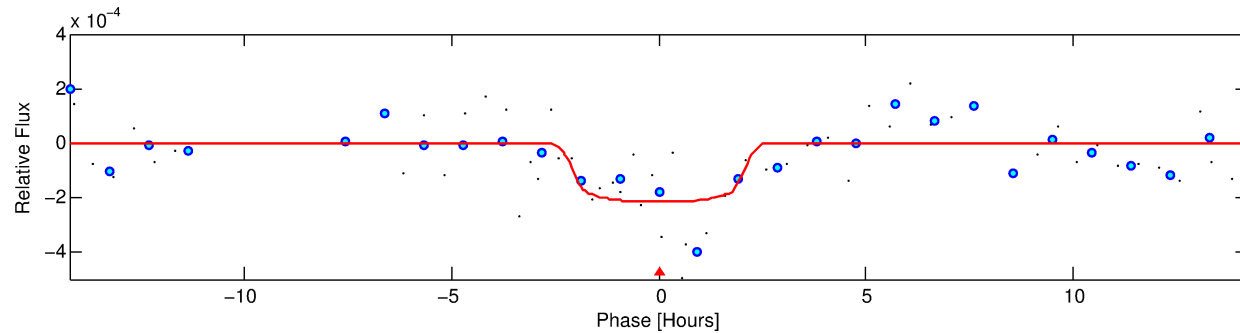
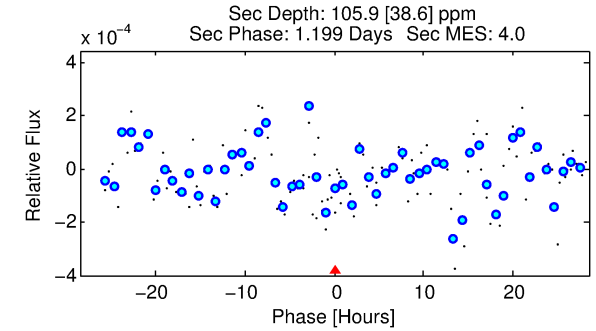
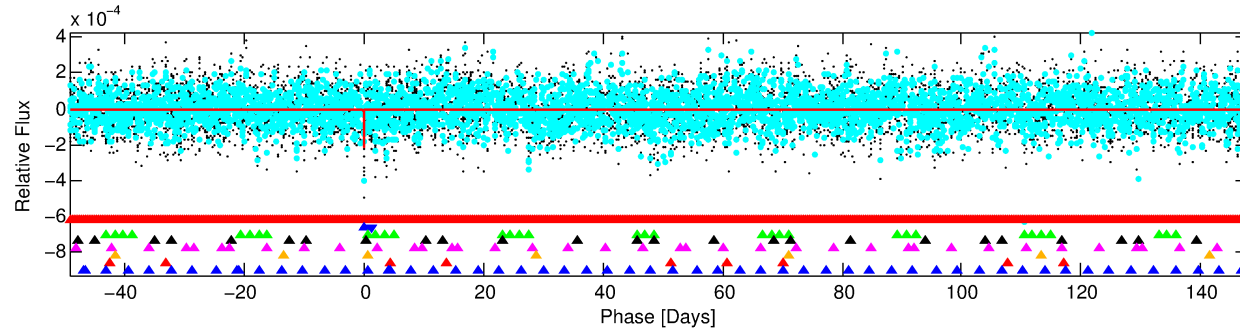
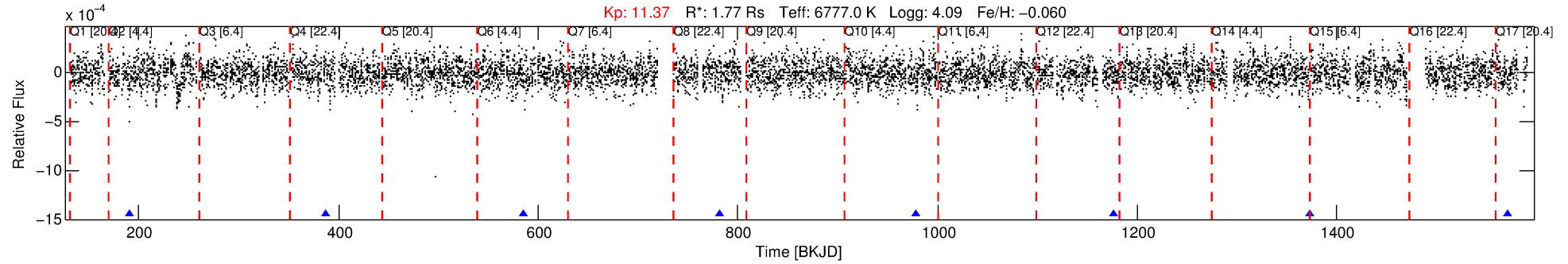
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004945266-02

No Significant Match Found

DV One-Page Summary

KIC: 4945266 Candidate: 2 of 8 Period: 197.255 d



DV Fit Results:

Period = 197.25479 [0.00338] d
Epoch = 190.0953 [0.0182] BKJD
Rp/R* = 0.0161 [0.0069]
a/R* = 133.79 [339.49]
b = 0.93 [0.40]
Seff = 10.65 [2.69]
Teq = 461 [29] K
Rp = 3.11 [1.48] Re
a = 0.7445 [0.1261] AU
Ag = 3338.75 [3230.69] [1.03σ]
Teffp = 5413 [1268] K [3.90σ]

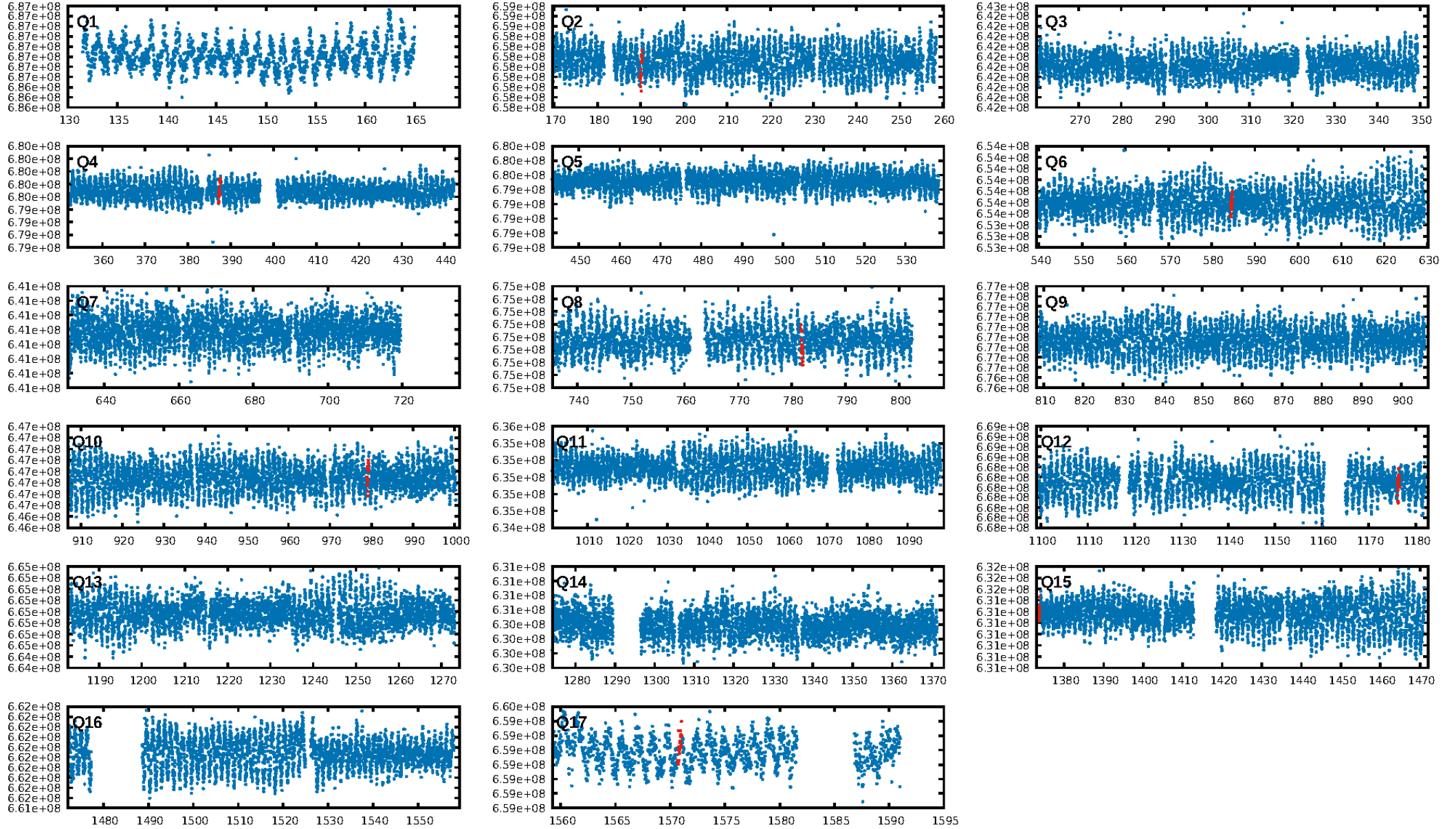
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [213.75σ]
LongPeriod-sig: 100.0% [38.28σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 32.3%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -0.2564
Centroid-sig: 41.3%
Centroid-so: 0.522 arcsec [0.85σ]
OotOffset-rm: 1.090 arcsec [0.95σ]
KicOffset-rm: 1.157 arcsec [1.12σ]
OotOffset-st: 3/0/3/1 [7]
KicOffset-st: 3/0/3/1 [7]
DiffImageQuality-fgm: 0.57 [4/7]
DiffImageOverlap-fno: 0.00 [0/7]

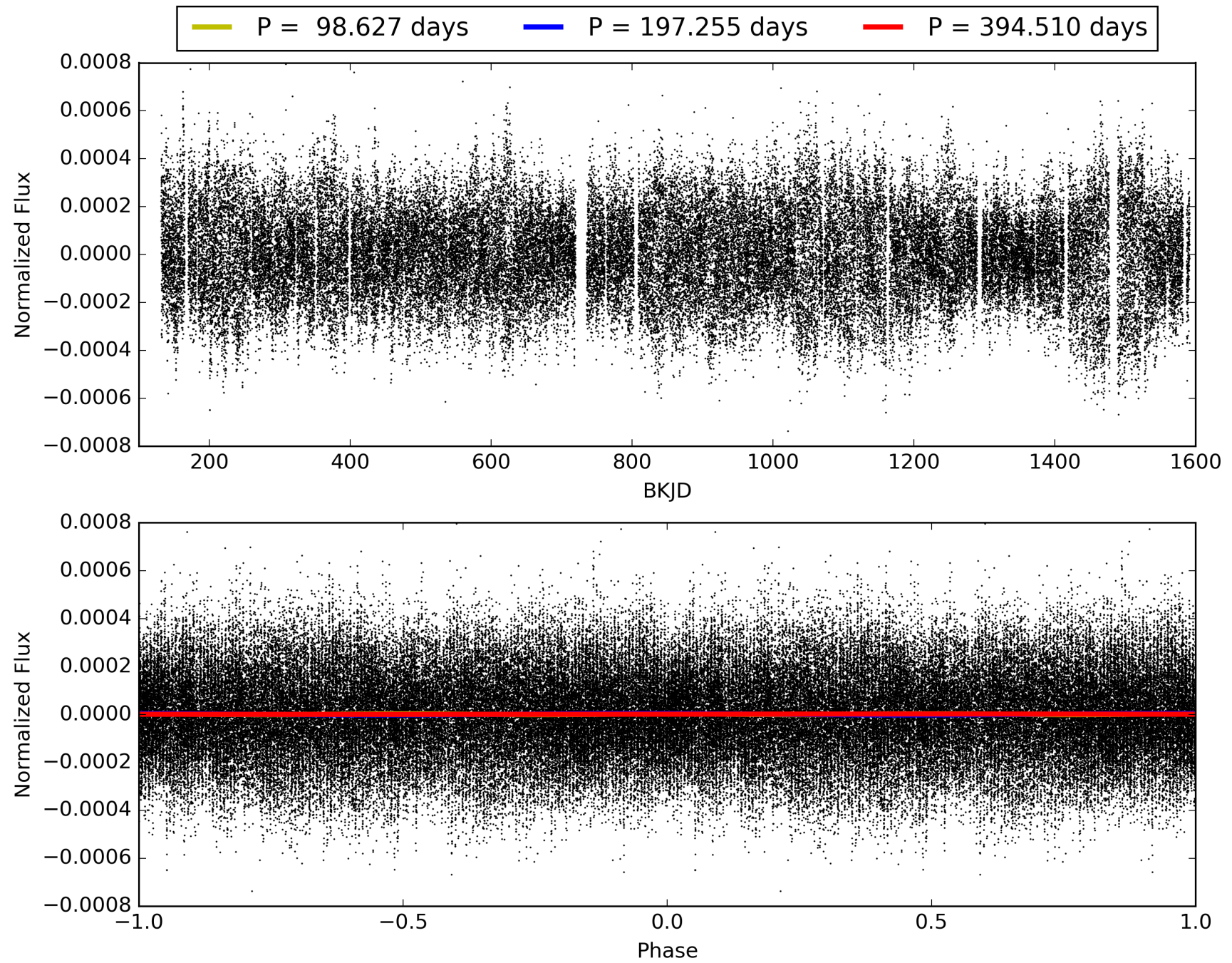
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:29:52 Z

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

TCE 004945266-02, PDC Light Curves

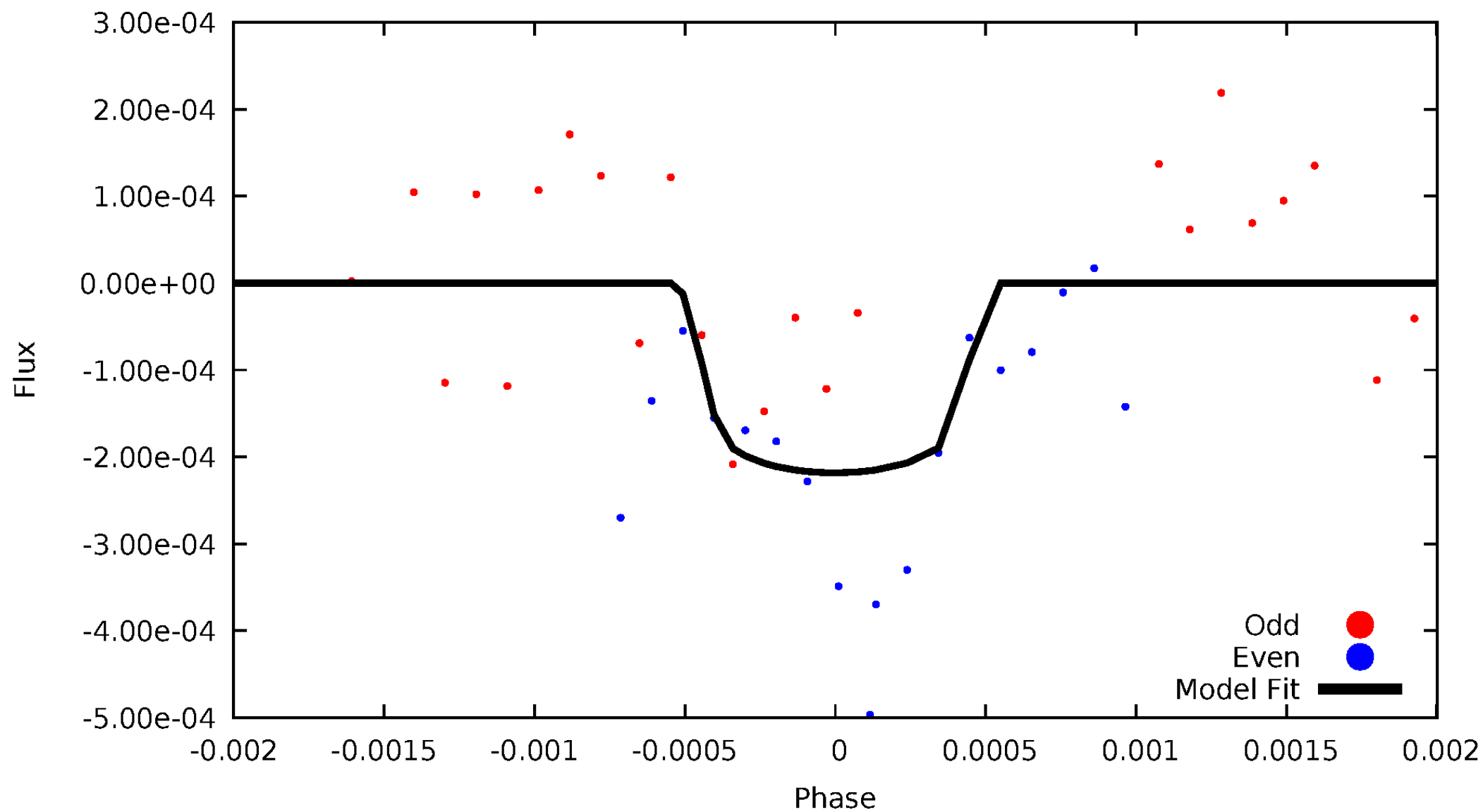


TCE 004945266-02



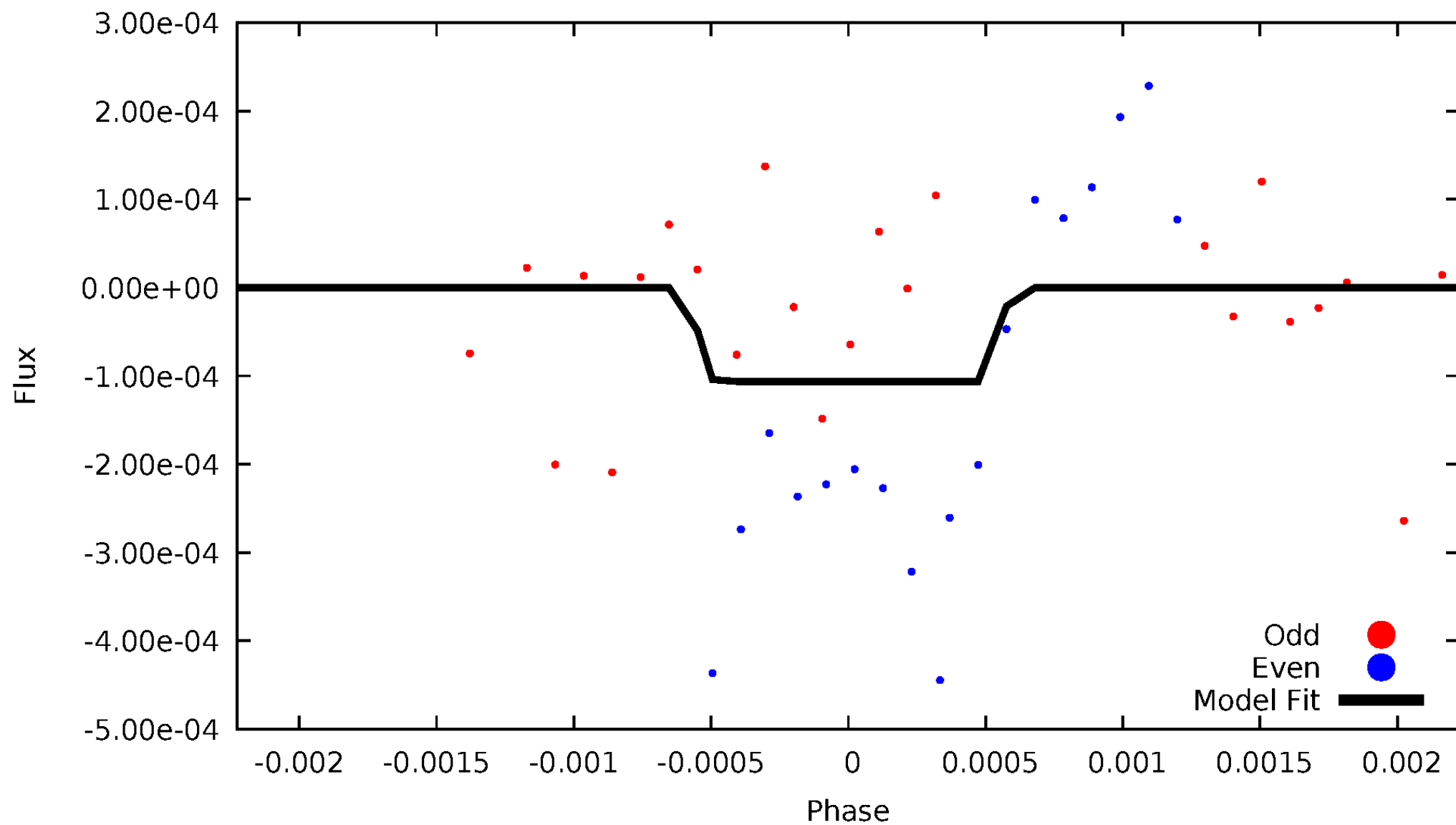
DV Odd/Even

TCE 004945266-02



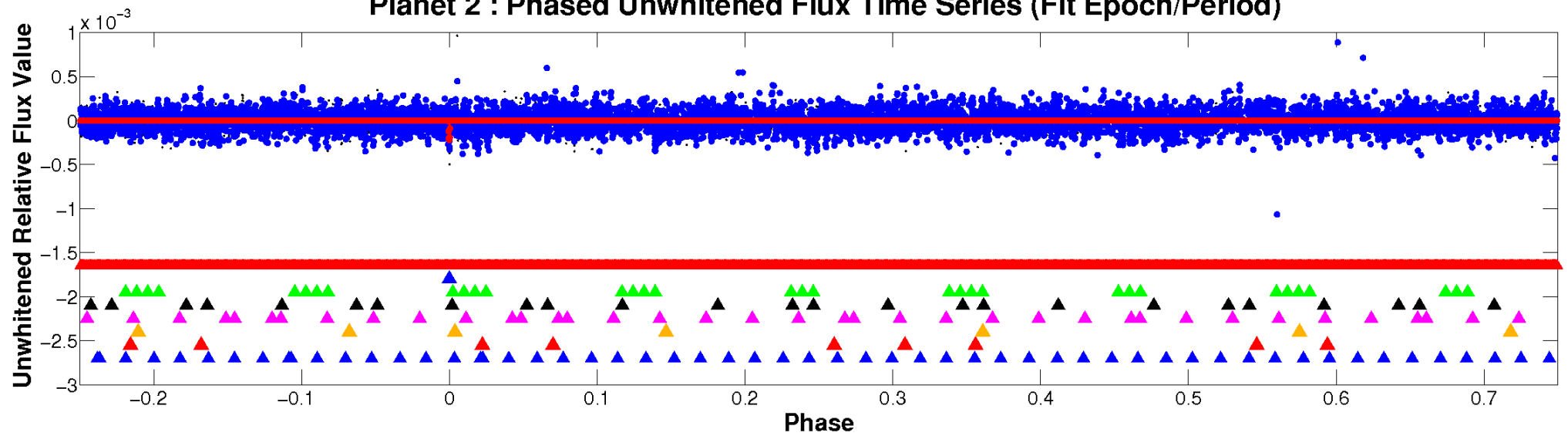
ALT Odd/Even

TCE 004945266-02

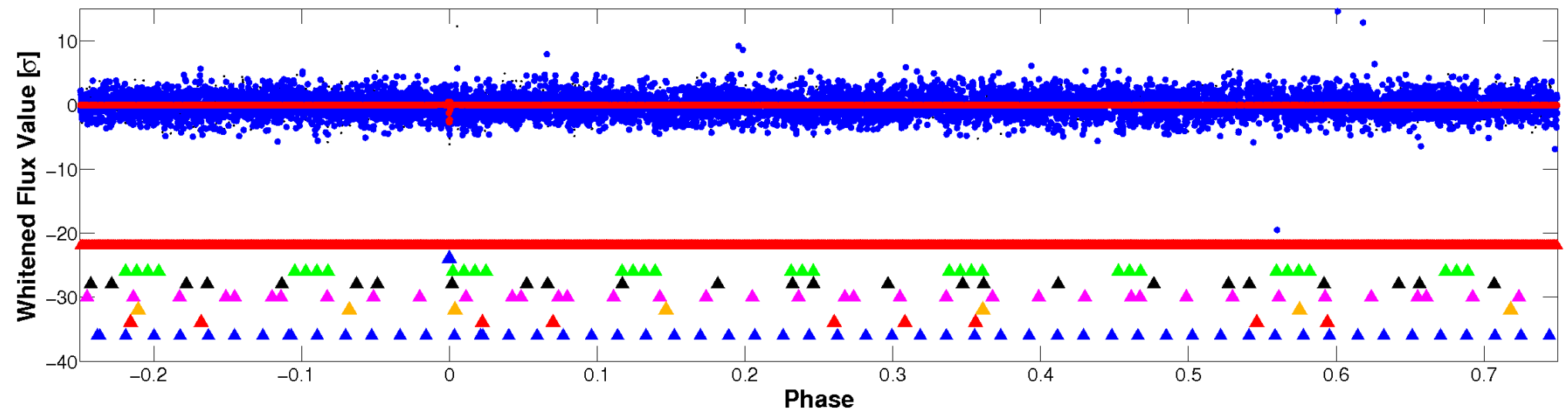


Non-Whitened Vs. Whitened Light Curve

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

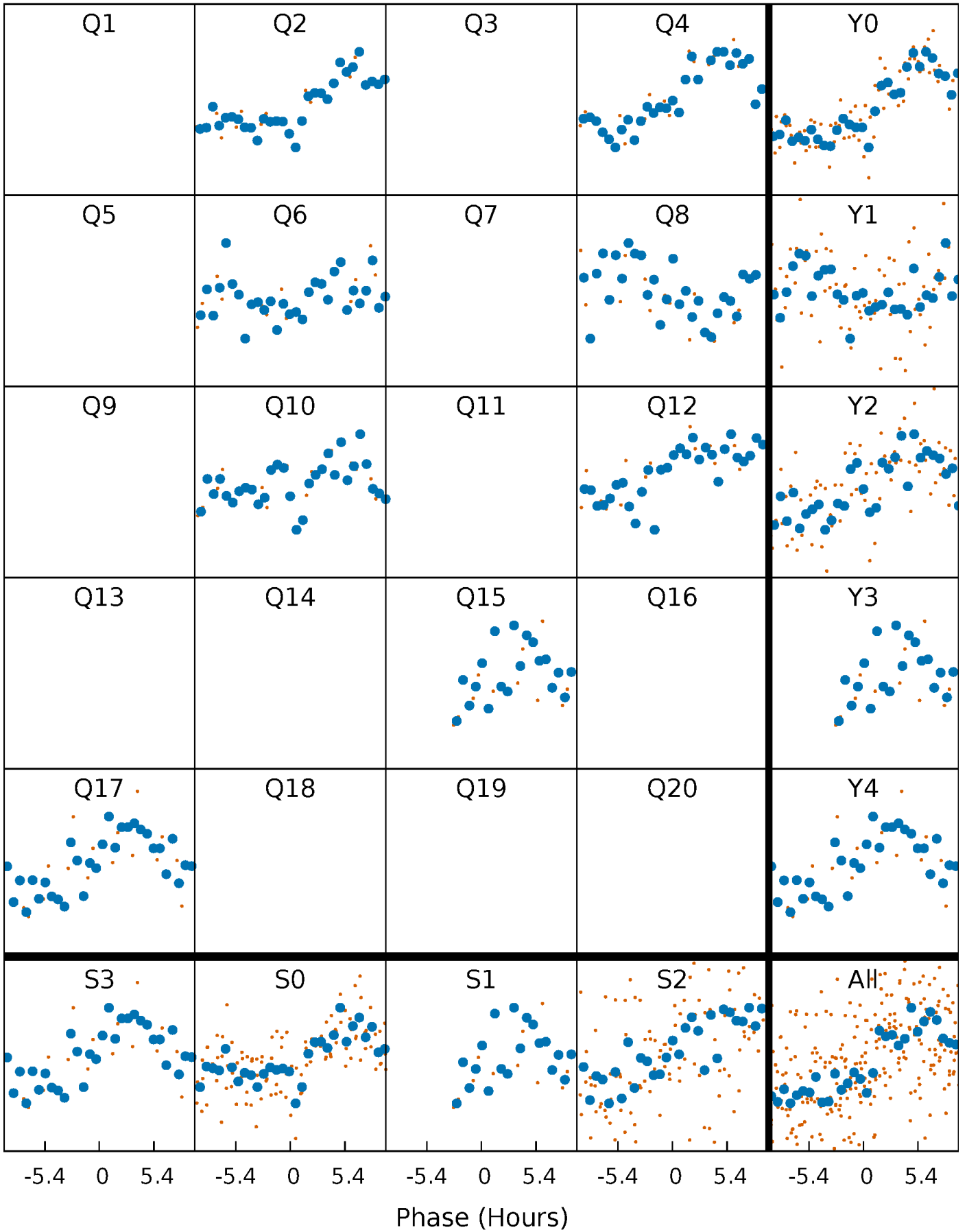


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



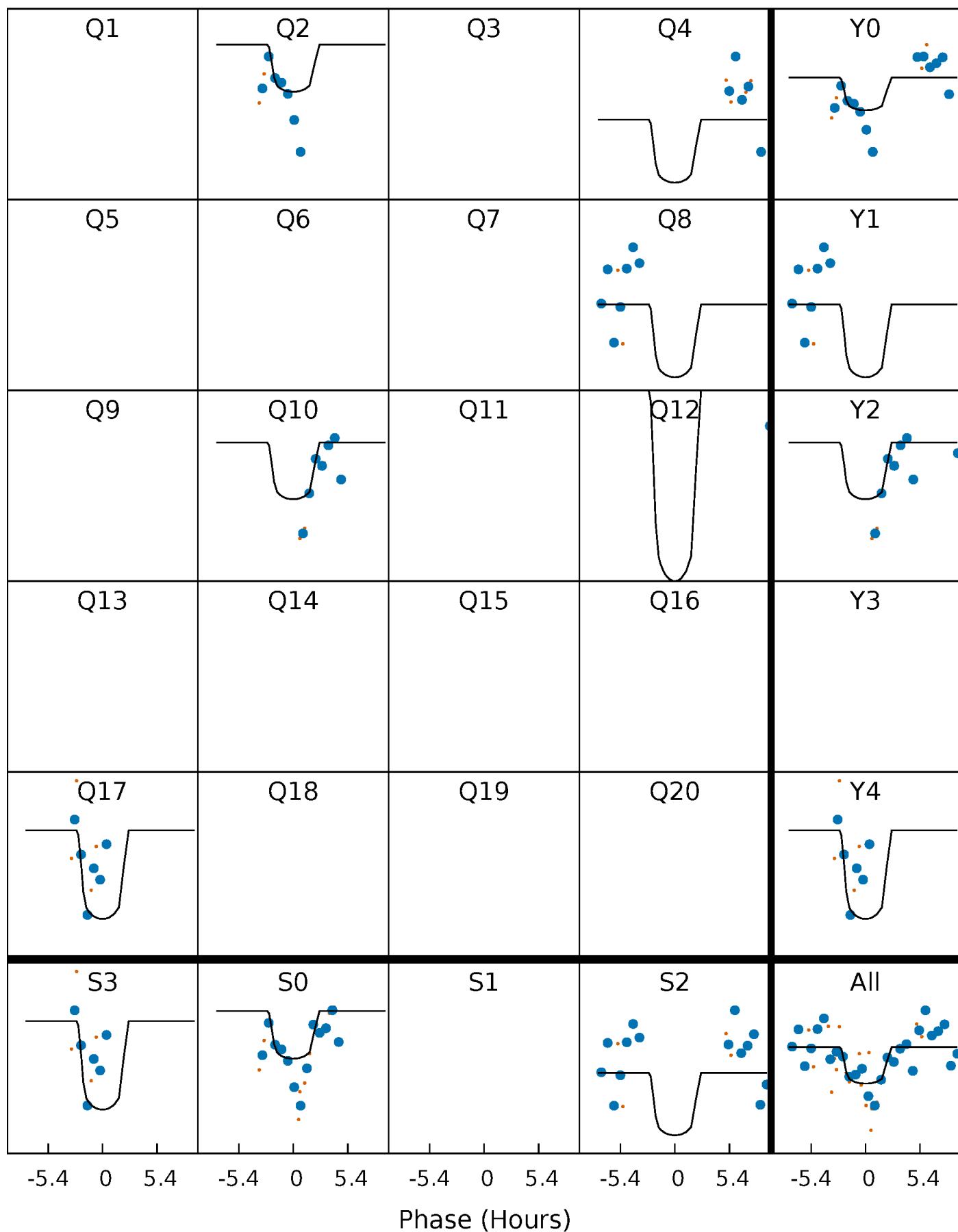
PDC Quarter-Phased Transit Curves

TCE 004945266-02 P=197.254786 Days $T_0=190.095347$ (BKJD)



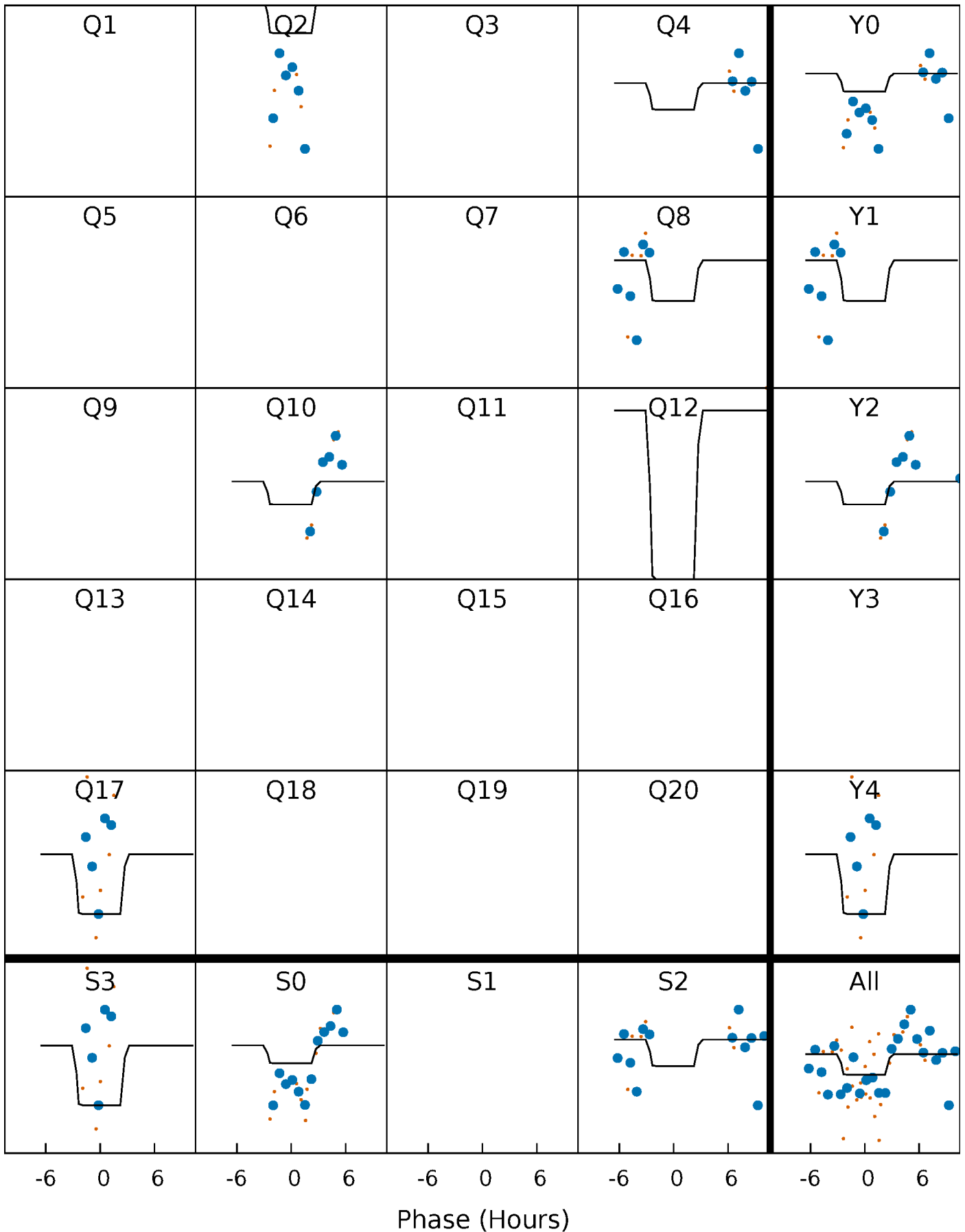
DV Quarter-Phased Transit Curves

TCE 004945266-02 P=197.254786 Days $T_0=190.095347$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

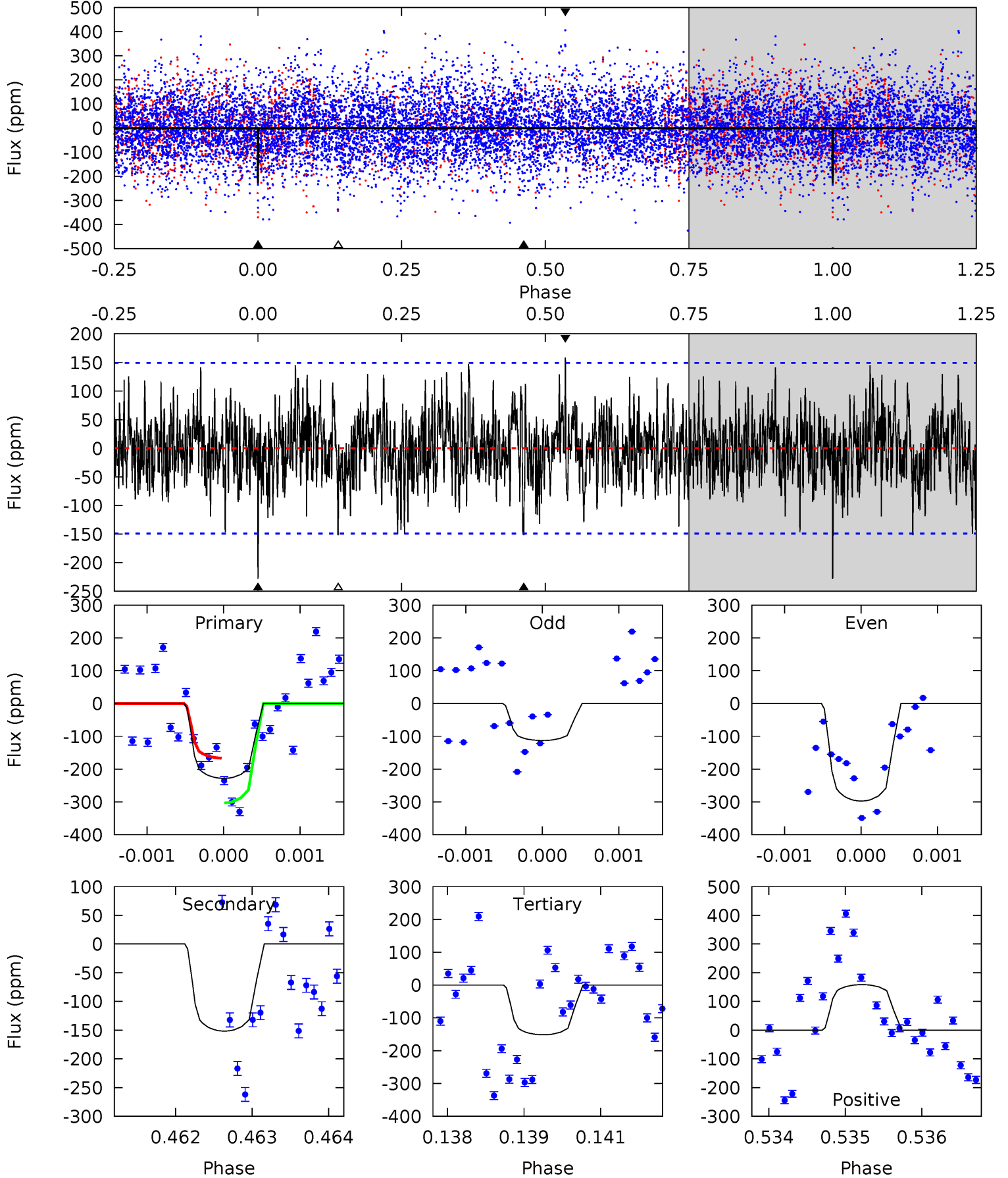
TCE 004945266-02 P=197.254069 Days $T_0=190.052139$ (BKJD)



DV Model-Shift Uniqueness Test

004945266-02, P = 197.254786 Days, E = 190.095347 Days

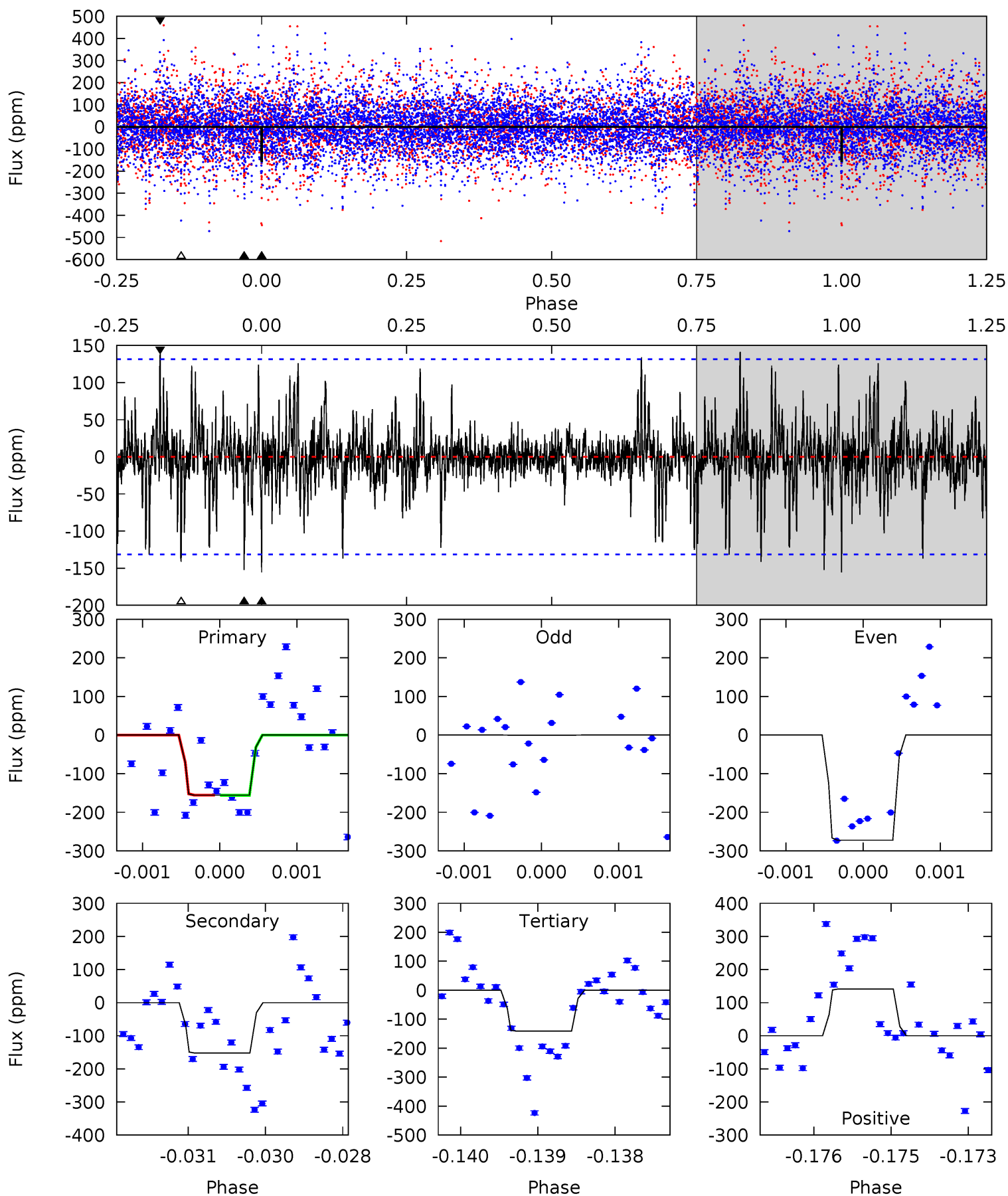
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.33	5.53	5.53	5.79	5.44	3.27	1.74	2.80	2.54	0.00	-0.25	3.39	0.82	0.41	2.47



Alt Model-Shift Uniqueness Test

004945266-02, P = 197.254069 Days, E = 190.052139 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.42	6.28	5.82	5.82	5.41	3.23	1.35	0.60	0.60	0.46	0.46	5.58	0.74	0.48	0.01



Stellar Parameters For KIC 004945266

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6777^{+71}_{-91}	$4.094^{+0.135}_{-0.135}$	$-0.060^{+0.150}_{-0.150}$	$1.767^{+0.355}_{-0.323}$	$1.422^{+0.116}_{-0.129}$	$0.363^{+0.234}_{-0.142}$
	+1%/-1%	+3%/-3%	+250%/-250%	+20%/-18%	+8%/-9%	+64%/-39%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 004945266-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-152 ± 27	$3.15^{+1.51}_{-1.40}$	644^{+32}_{-31}	5867^{+2086}_{-949}	4717^{+9798}_{-2641}
Alt.	-152 ± 24	$2.16^{+1.29}_{-1.19}$	643^{+35}_{-31}	7135^{+5186}_{-1538}	10261^{+38085}_{-6452}

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

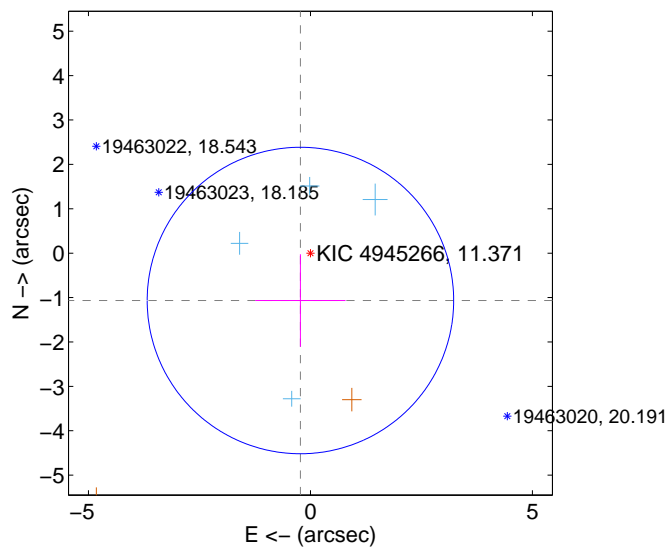
Supplemental centroid analysis for 004945266-02. **Kepler magnitude: 11.37.** Transit SNR 9.36

There are 4 quarters with good PRF difference image offsets

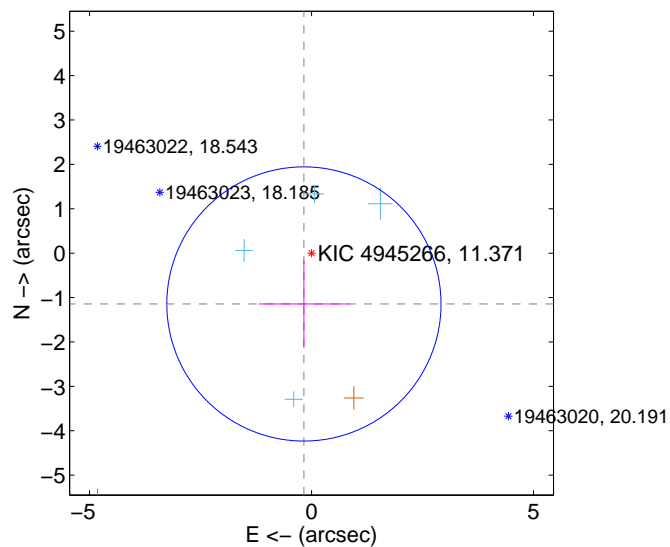
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.090 ± 1.150	0.95	0.225 ± 1.016	-1.066 ± 1.041
PRF-fit source offset from KIC position	1.157 ± 1.029	1.12	0.171 ± 1.017	-1.144 ± 0.985
photometric centroid source offset	0.52 ± 0.61	0.85	-0.43 ± 0.65	-0.29 ± 0.52

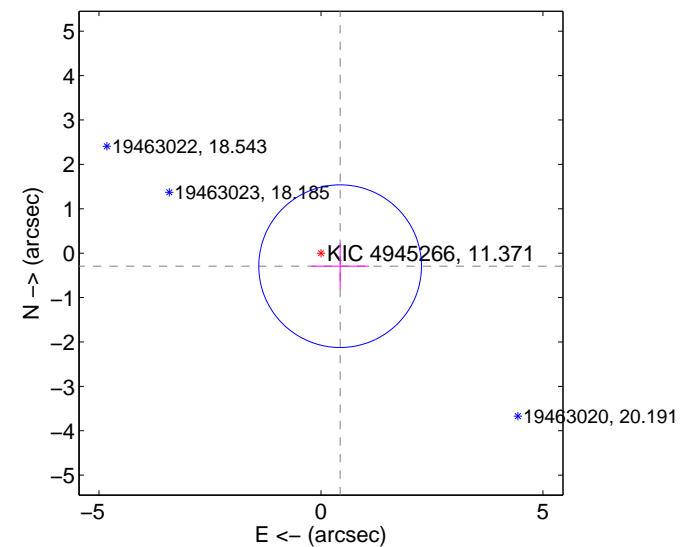
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

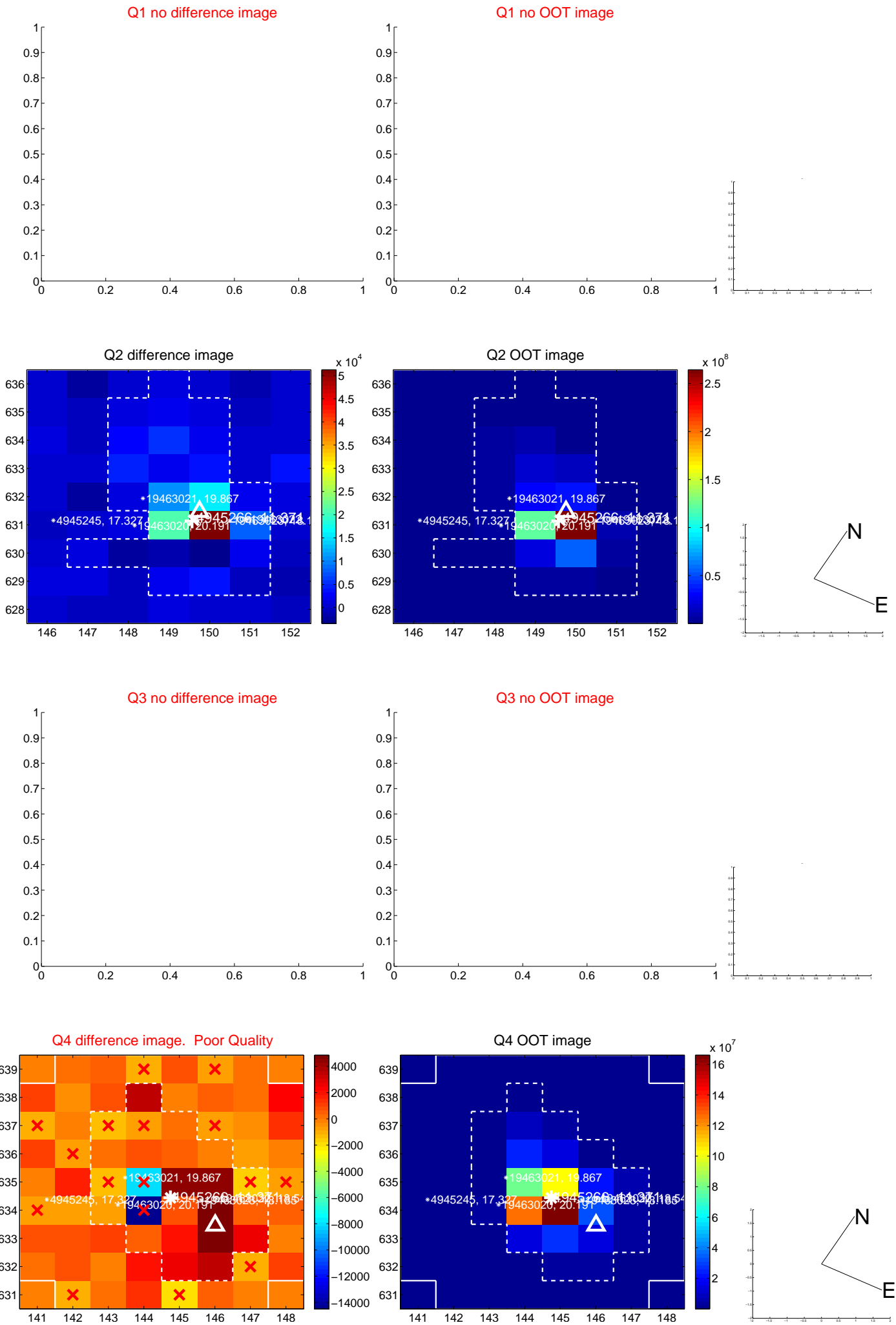


offset from photometric centroids

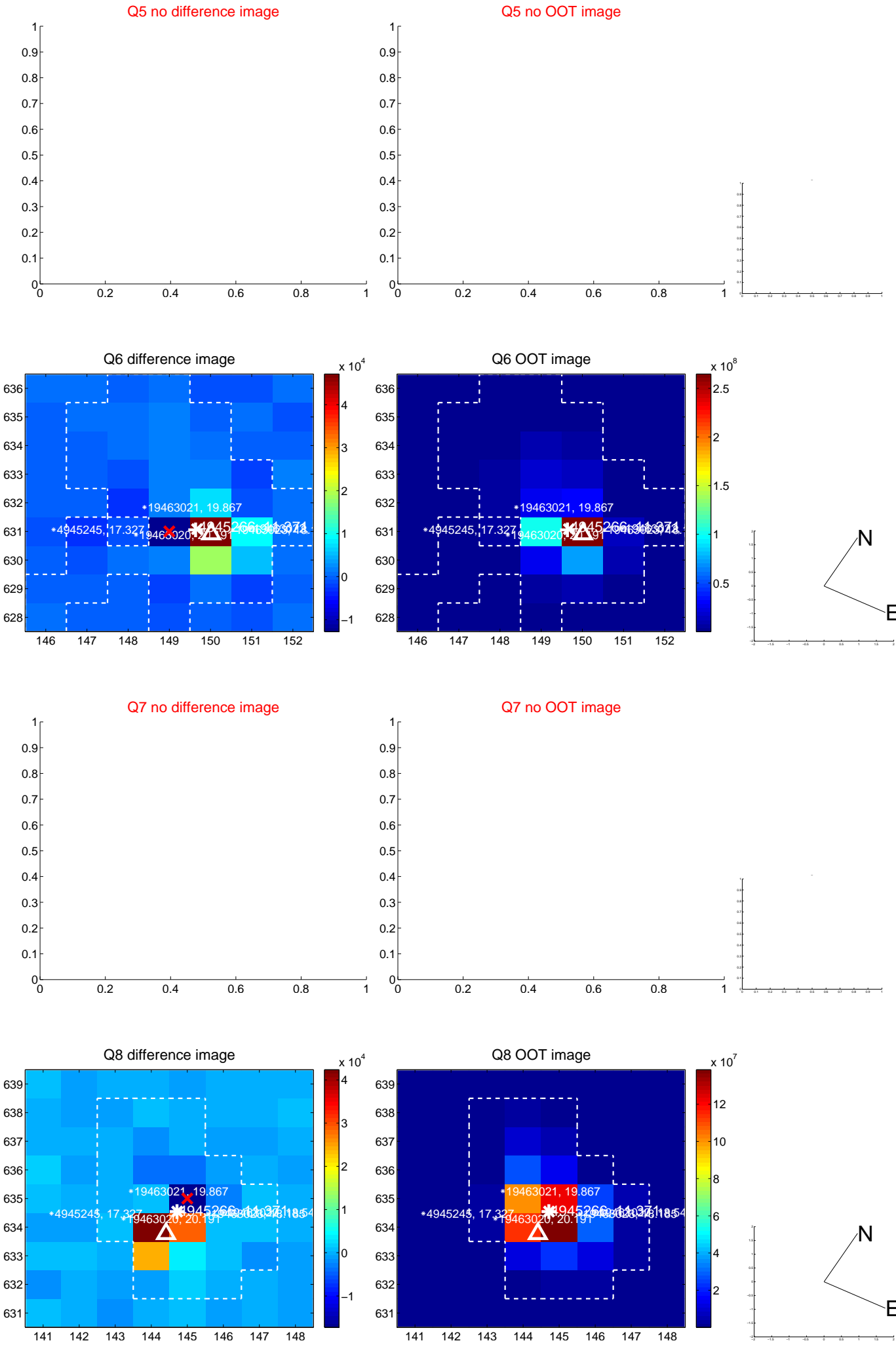


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

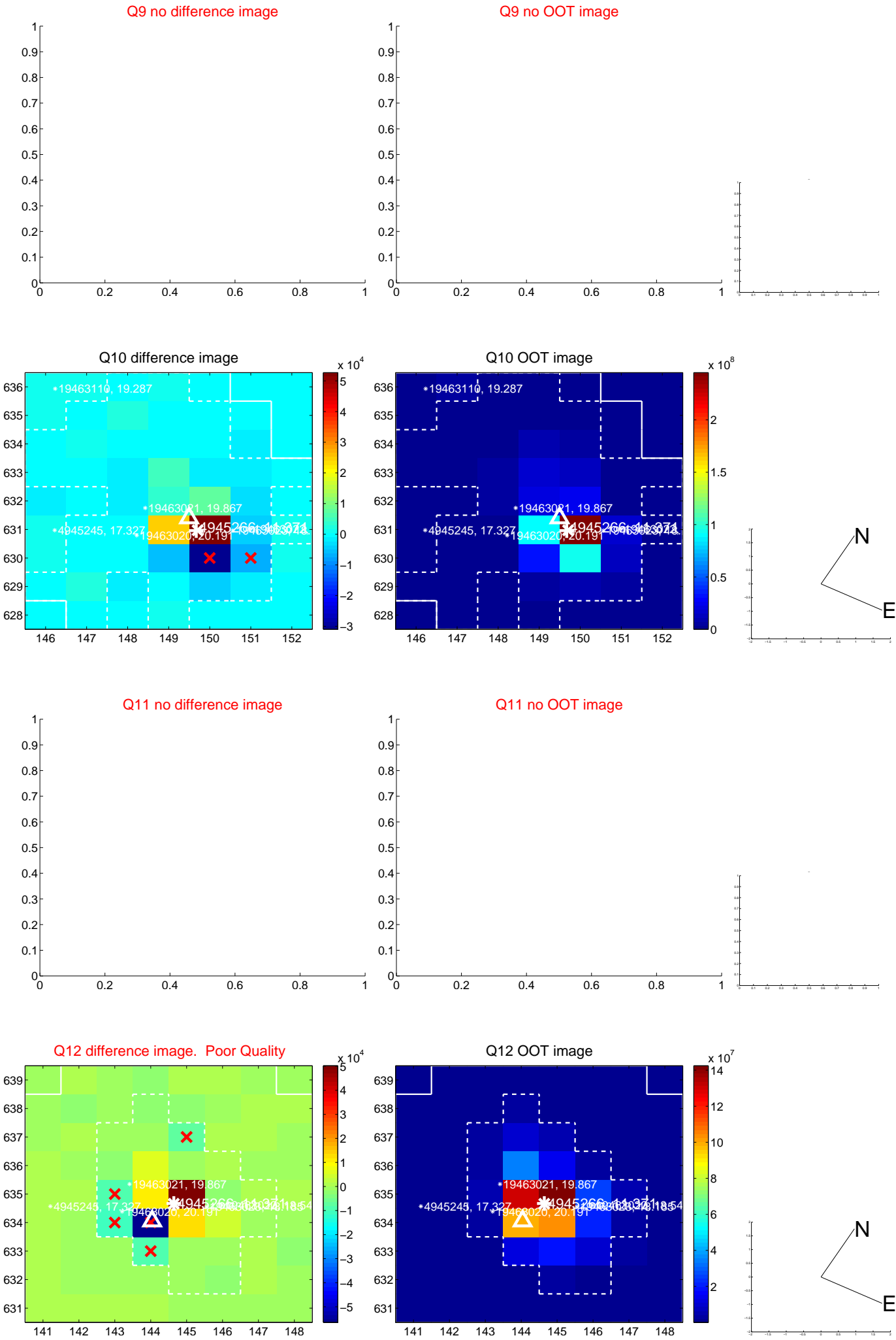
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



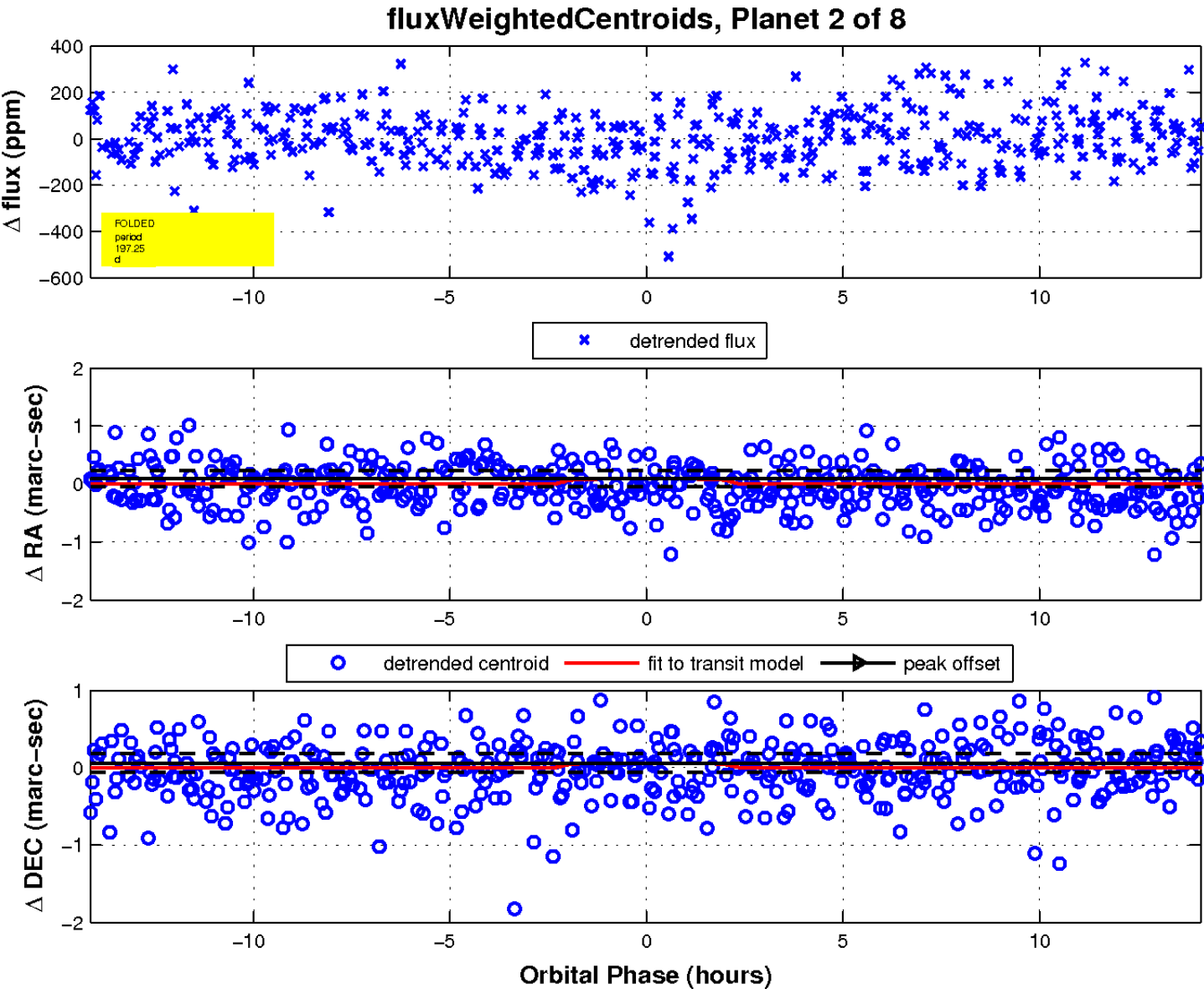
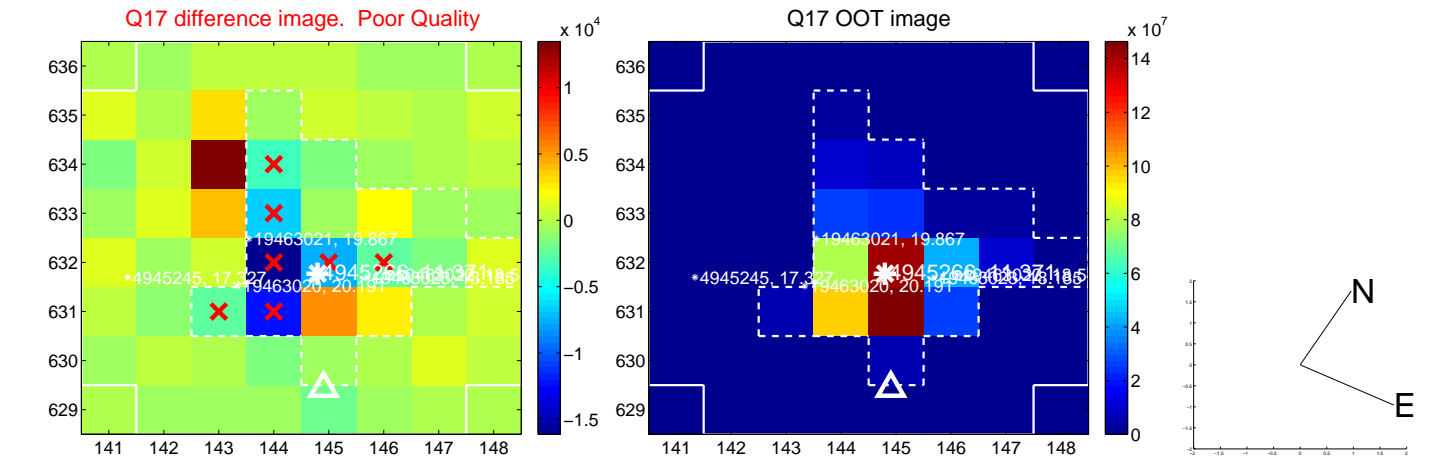
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

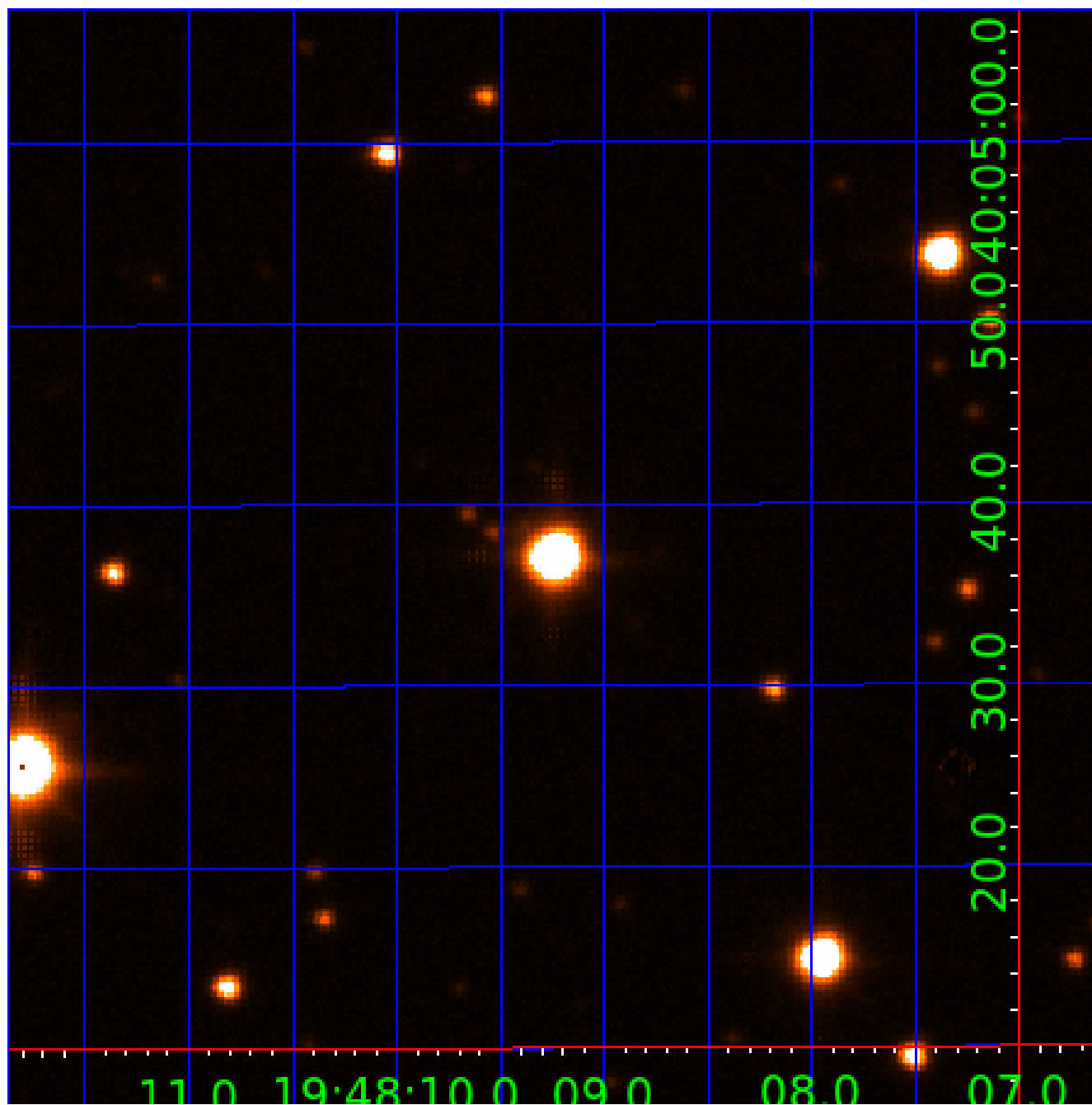


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 004945266

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})
004945266-01	OBS	No	1.197557	131.957025	3.7	7.974	8.7	2.6	1.77	6777	0.36	9611.85
004945266-02	OBS	No	197.254787	190.095347	218.2	4.735	12.6	9.4	1.77	6777	3.11	10.64
004945266-03	OBS	No	43.670555	173.893348	211.0	1.636	11.0	10.5	1.77	6777	2.97	79.48
004945266-04	OBS	No	58.180105	142.246997	118.0	6.605	9.6	8.6	1.77	6777	2.21	54.22
004945266-05	OBS	No	38.216314	166.445720	111.5	7.070	9.2	9.3	1.77	6777	2.06	94.96
004945266-06	OBS	No	239.524693	134.479079	196.6	26.074	10.3	10.2	1.77	6777	2.73	8.22
004945266-07	OBS	No	150.297522	241.464117	179.6	2.319	9.8	9.3	1.77	6777	2.69	15.30
004945266-08	OBS	No	25.564376	143.427468	169.2	1.330	10.0	10.1	1.77	6777	2.33	162.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004945266-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
004945266-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_SATURATED
004945266-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
004945266-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
004945266-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
004945266-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
004945266-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
004945266-08	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_SATURATED

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

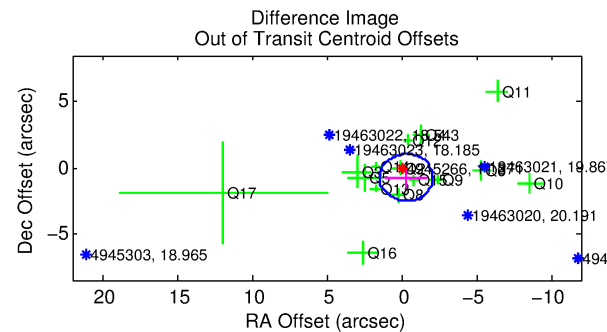
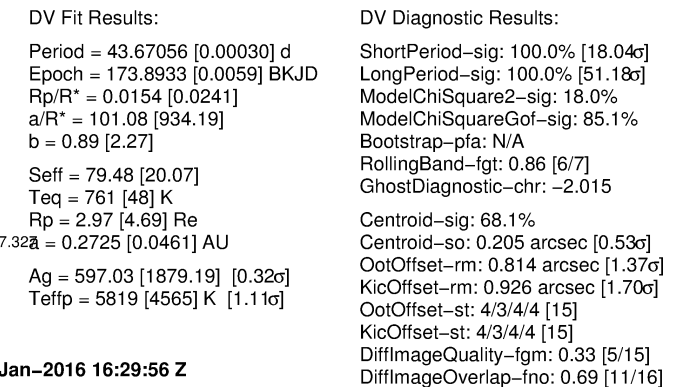
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

Ephemeris Match Information For 004945266-03

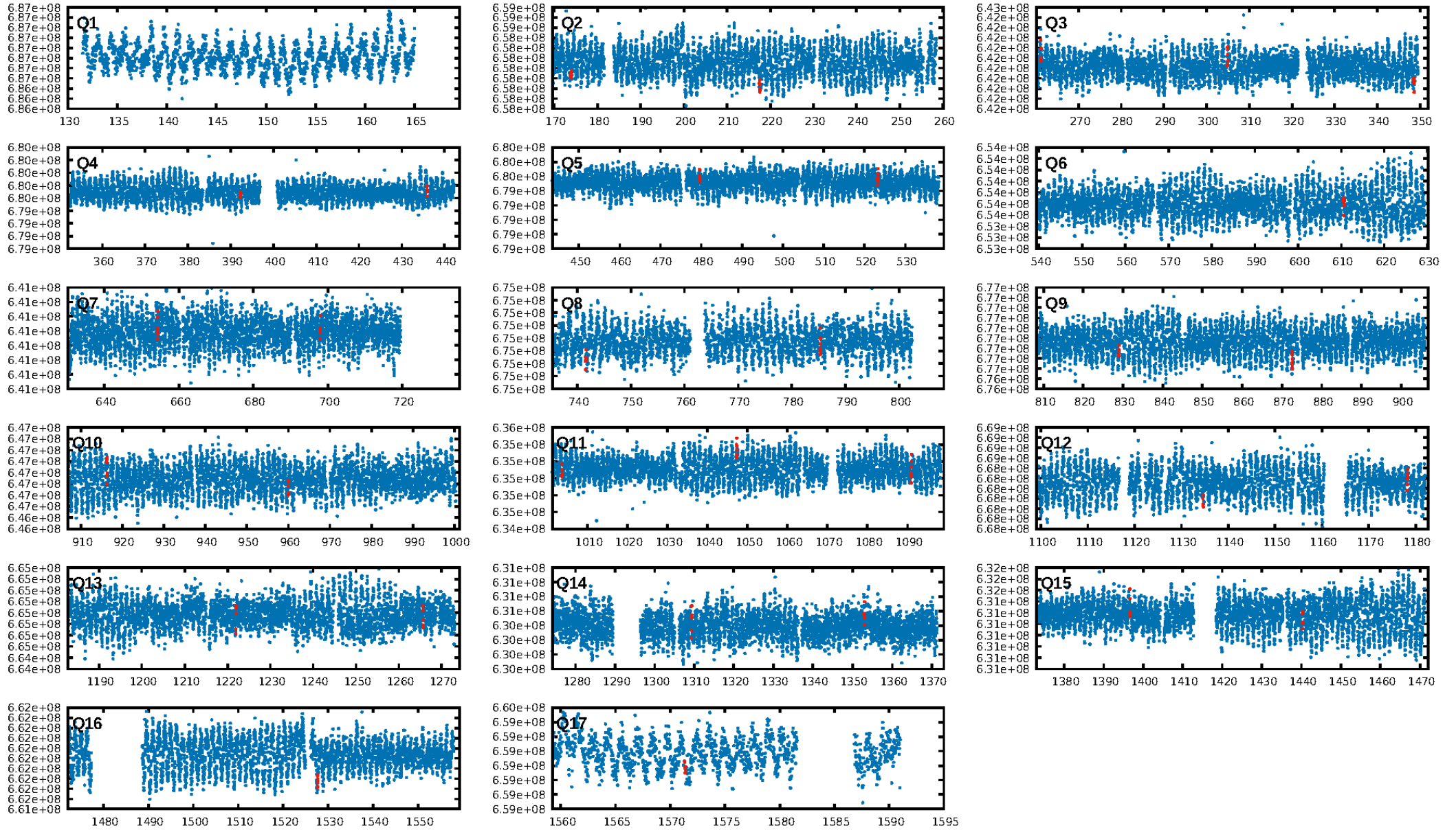
No Significant Match Found

KIC: 4945266 Candidate: 3 of 8 Period: 43.671 d

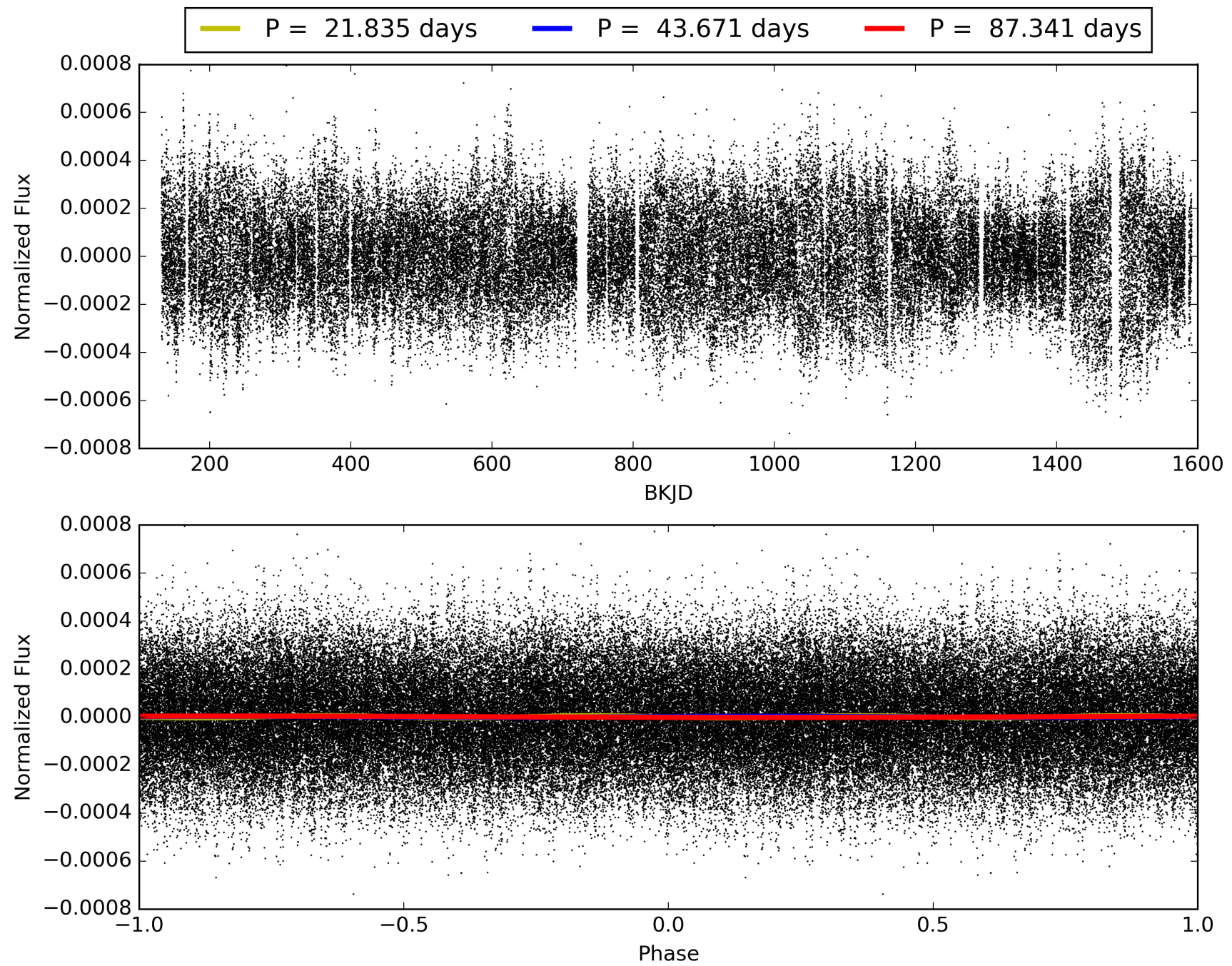


Software Revision: [svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958](https://murzim/repo/soc/tags/release/9.3.42@60958) -- Date Generated: 30-Jan-2016 16:29:56 Z
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 004945266-03, PDC Light Curves

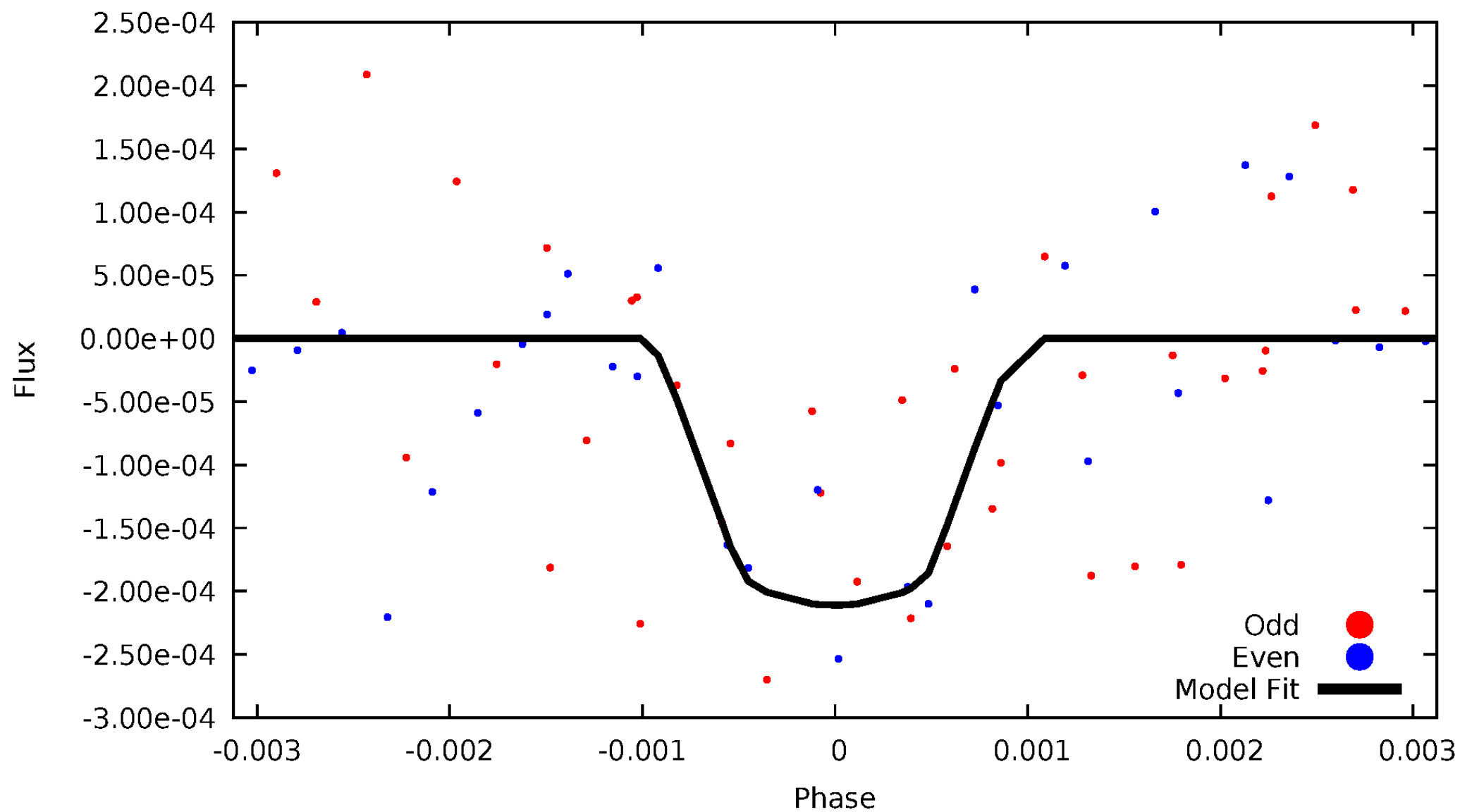


TCE 004945266-03



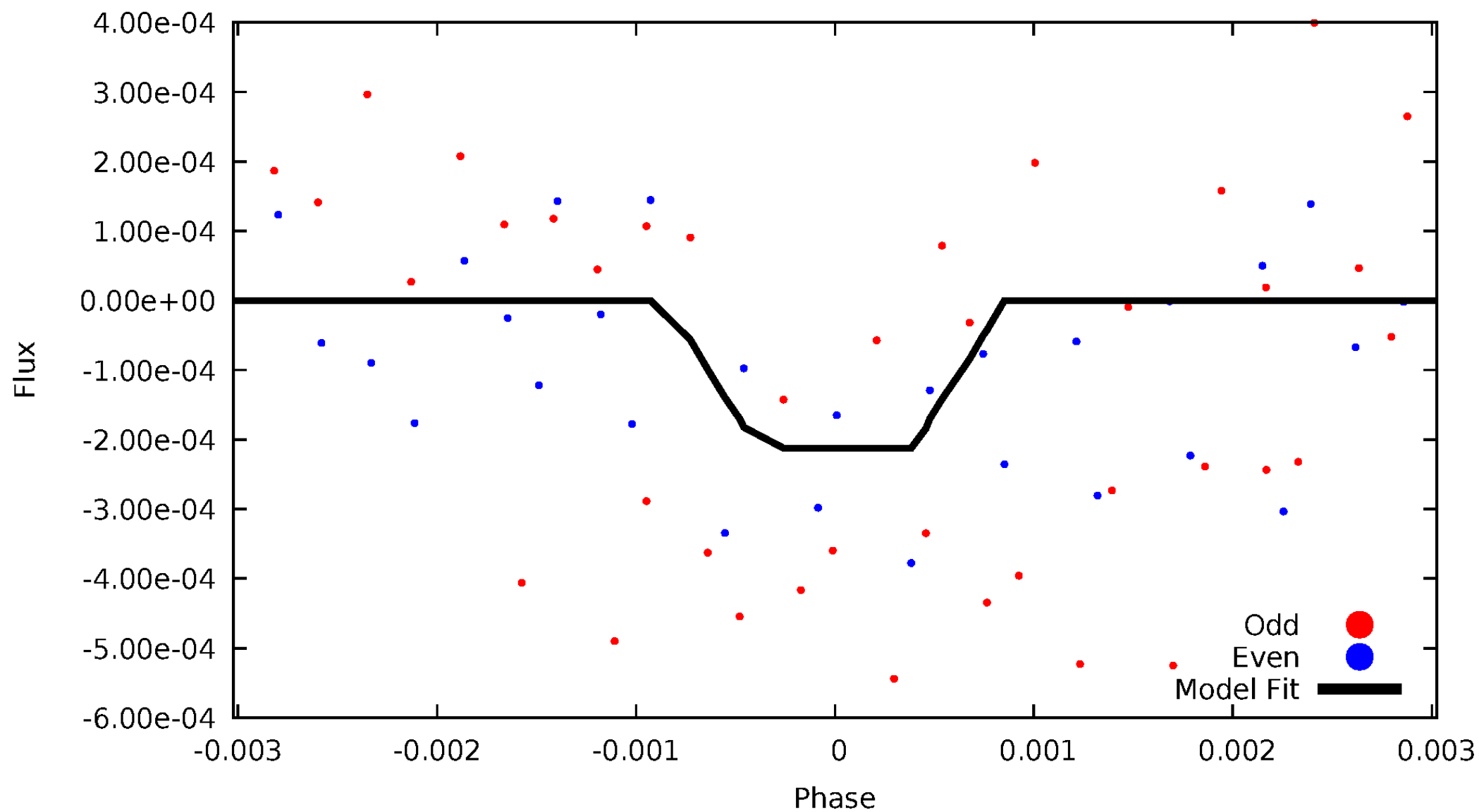
DV Odd/Even

TCE 004945266-03

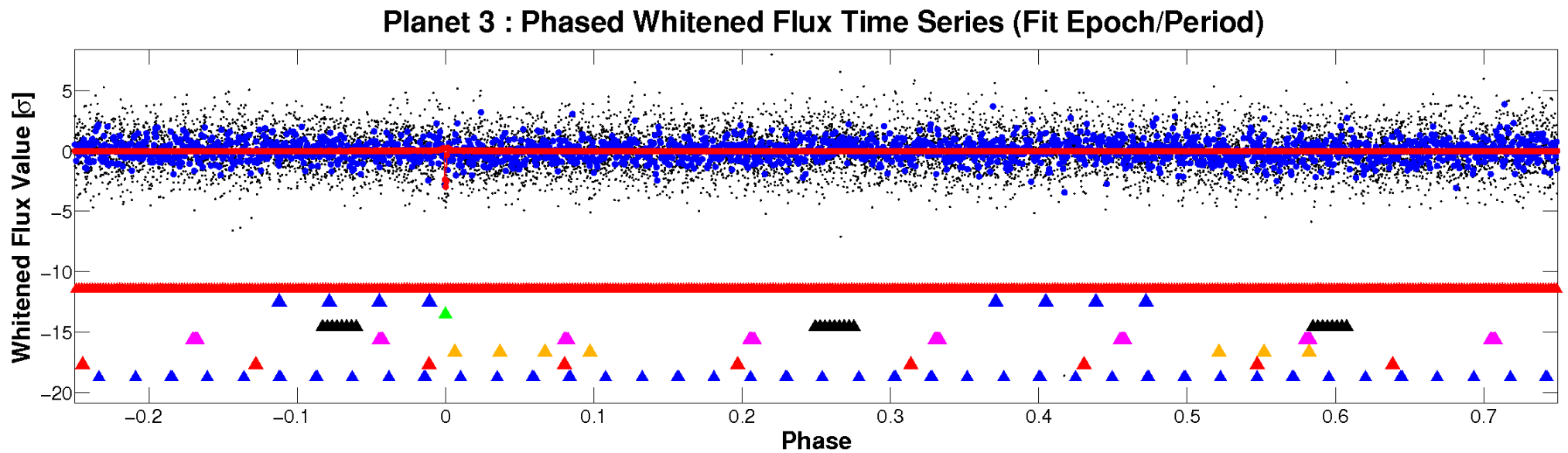
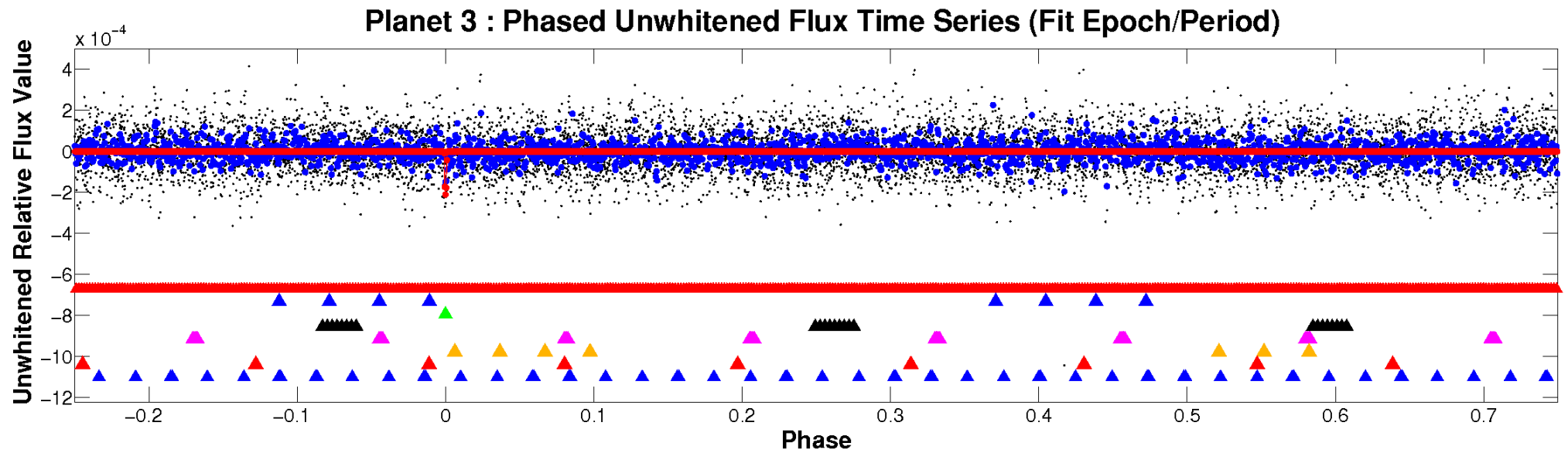


ALT Odd/Even

TCE 004945266-03

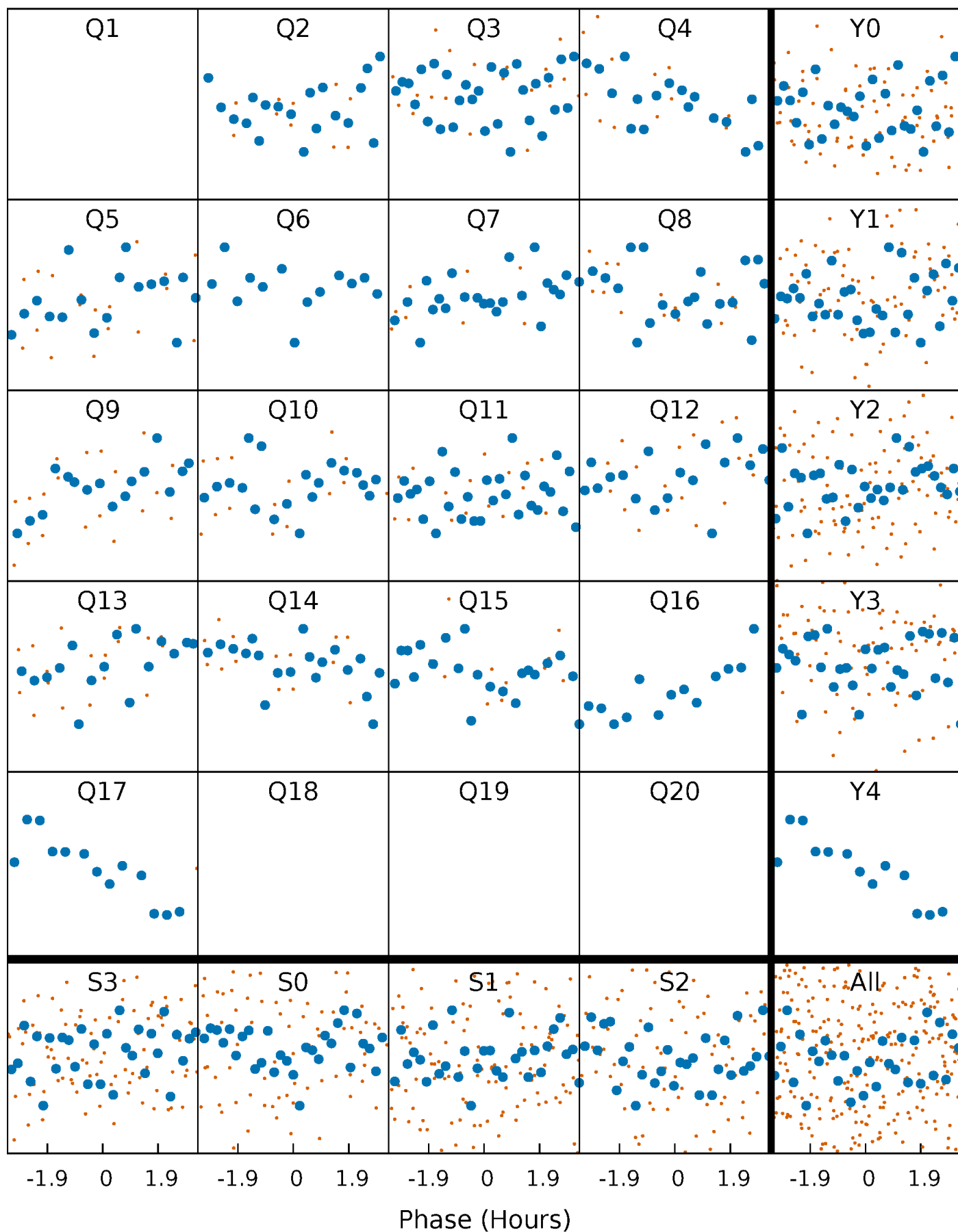


Non-Whitened Vs. Whitened Light Curve



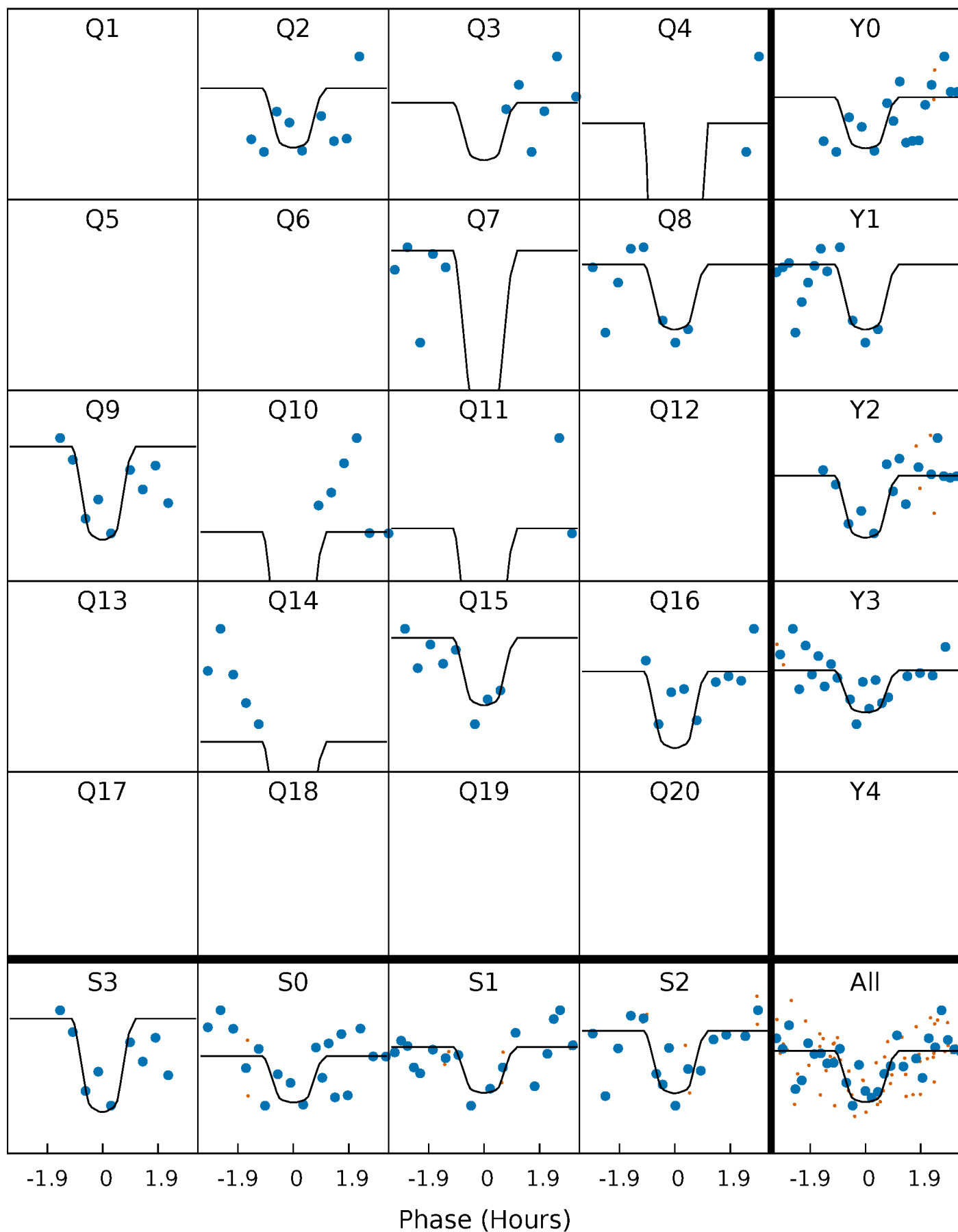
PDC Quarter-Phased Transit Curves

TCE 004945266-03 P= 43.670555 Days $T_0=173.893348$ (BKJD)



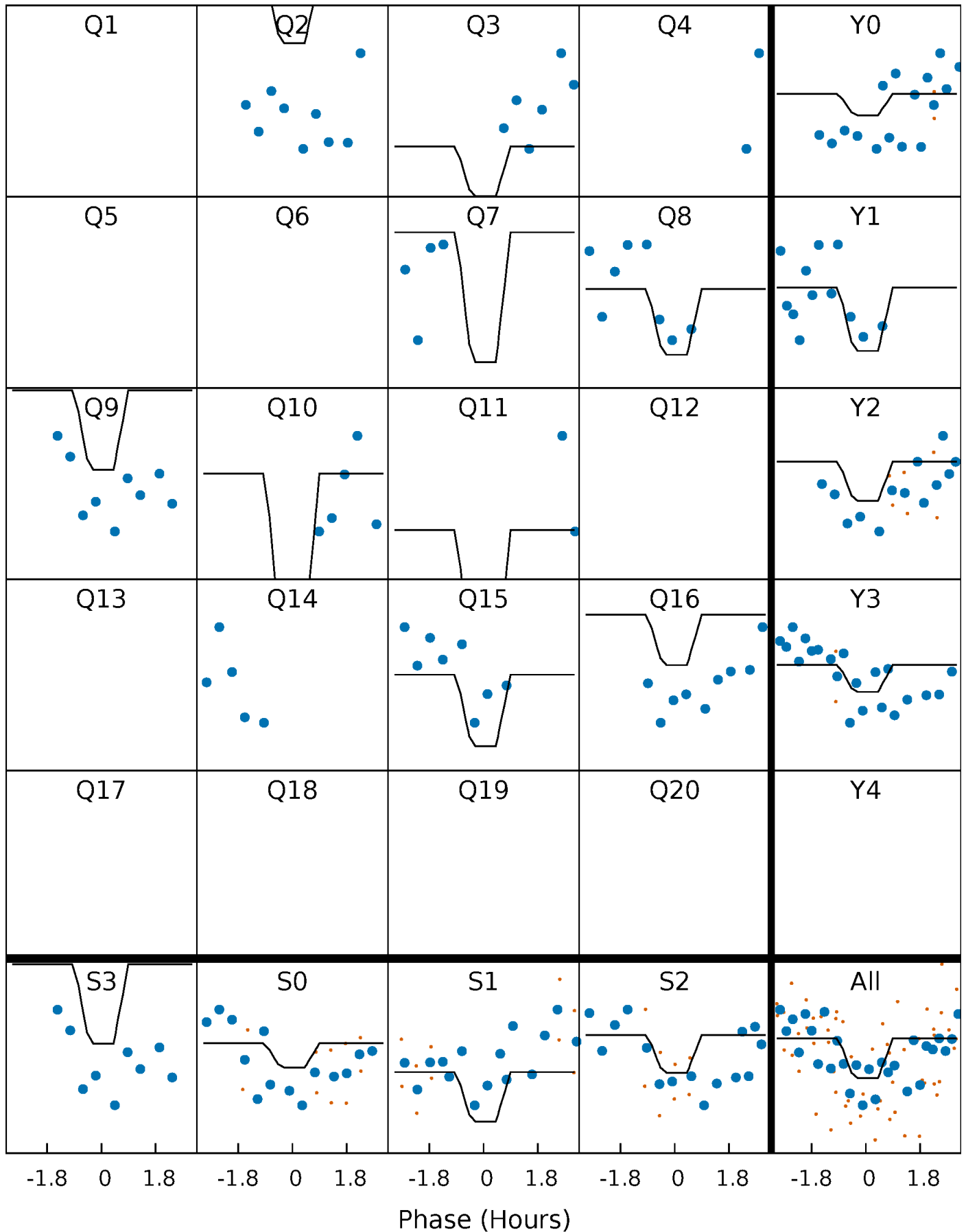
DV Quarter-Phased Transit Curves

TCE 004945266-03 P= 43.670555 Days $T_0=173.893348$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

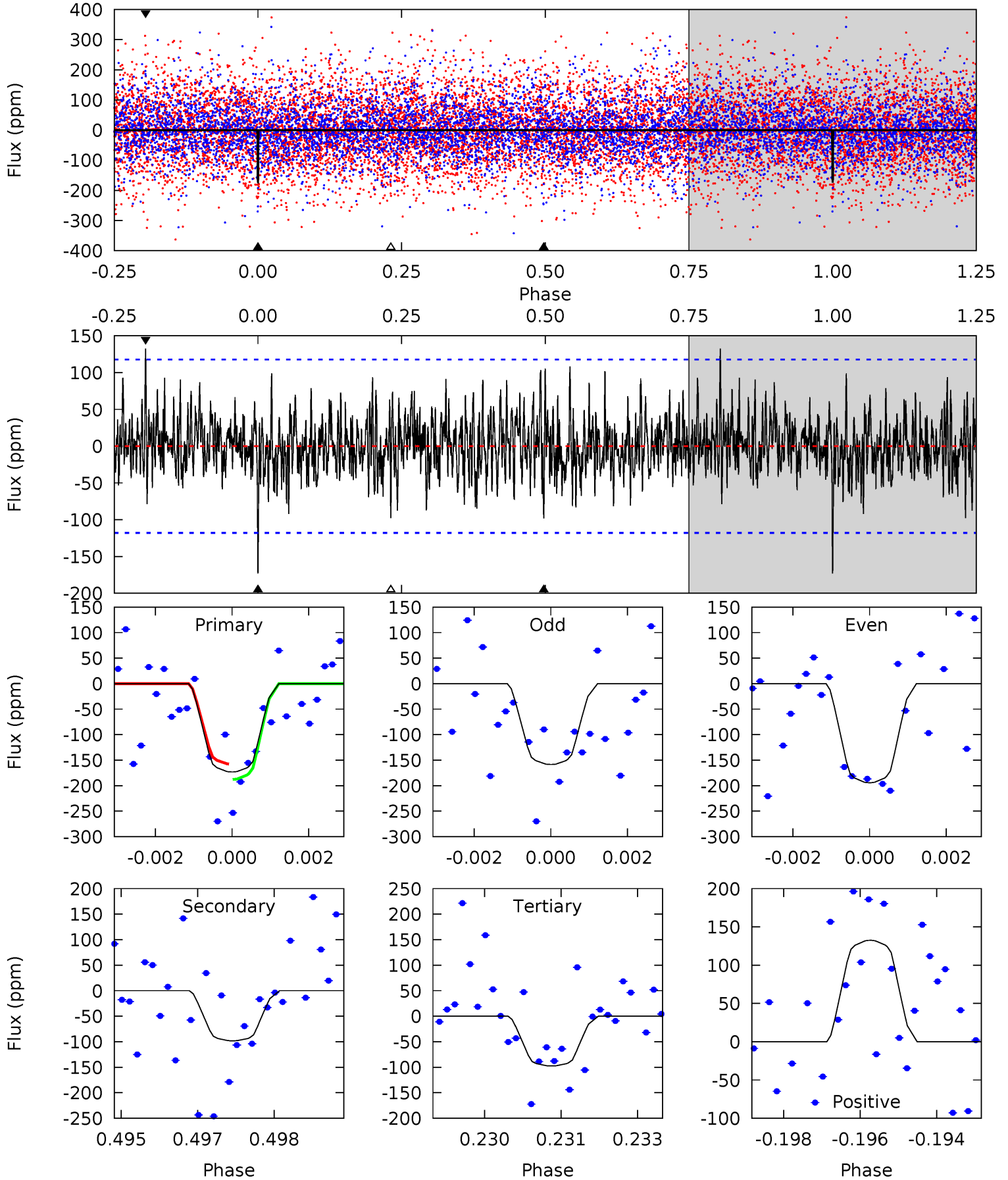
TCE 004945266-03 P= 43.670257 Days $T_0=173.897876$ (BKJD)



DV Model-Shift Uniqueness Test

004945266-03, $P = 43.670555$ Days, $E = 130.222793$ Days

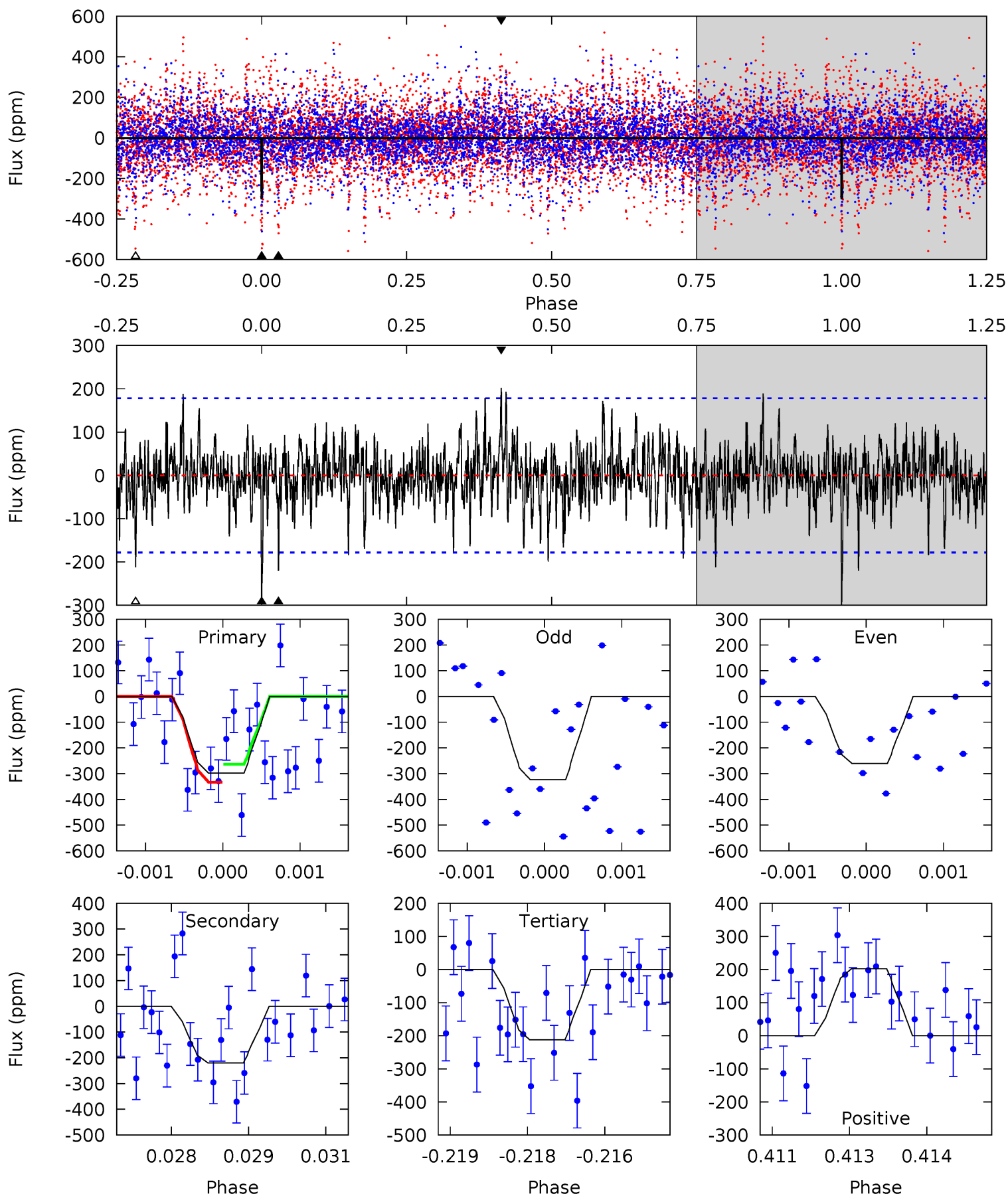
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.85	4.46	4.42	6.01	5.35	3.12	1.47	3.43	1.84	0.04	-1.55	0.80	1.02	0.43	0.68



Alt Model-Shift Uniqueness Test

004945266-03, P = 43.670257 Days, E = 130.227619 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.02	6.66	6.43	6.12	5.39	3.19	1.70	2.60	2.90	0.24	0.54	0.95	0.85	0.40	1.04



Stellar Parameters For KIC 004945266

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6777^{+71}_{-91}	$4.094^{+0.135}_{-0.135}$	$-0.060^{+0.150}_{-0.150}$	$1.767^{+0.355}_{-0.323}$	$1.422^{+0.116}_{-0.129}$	$0.363^{+0.234}_{-0.142}$
	+1%/-1%	+3%/-3%	+250%/-250%	+20%/-18%	+8%/-9%	+64%/-39%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 004945266-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-98 ± 22	$4.98^{+3.93}_{-3.39}$	1067^{+65}_{-55}	4417^{+2972}_{-846}	164^{+1342}_{-116}
Alt.	-220 ± 33	$4.61^{+3.80}_{-3.10}$	1064^{+56}_{-51}	5388^{+4544}_{-1201}	425^{+3477}_{-298}

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 $A_{obs} \gg 1.0$

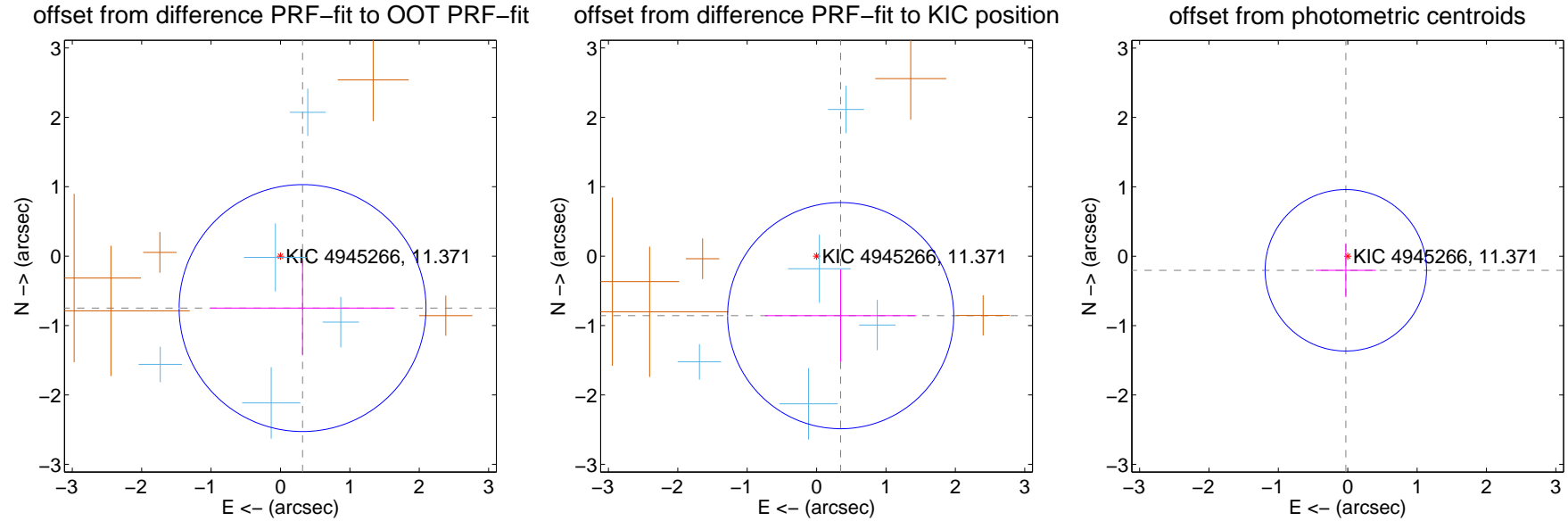
DV Centroid Data

Supplemental centroid analysis for 004945266-03. **Kepler magnitude: 11.37.** Transit SNR 10.45

There are 5 quarters with good PRF difference image offsets

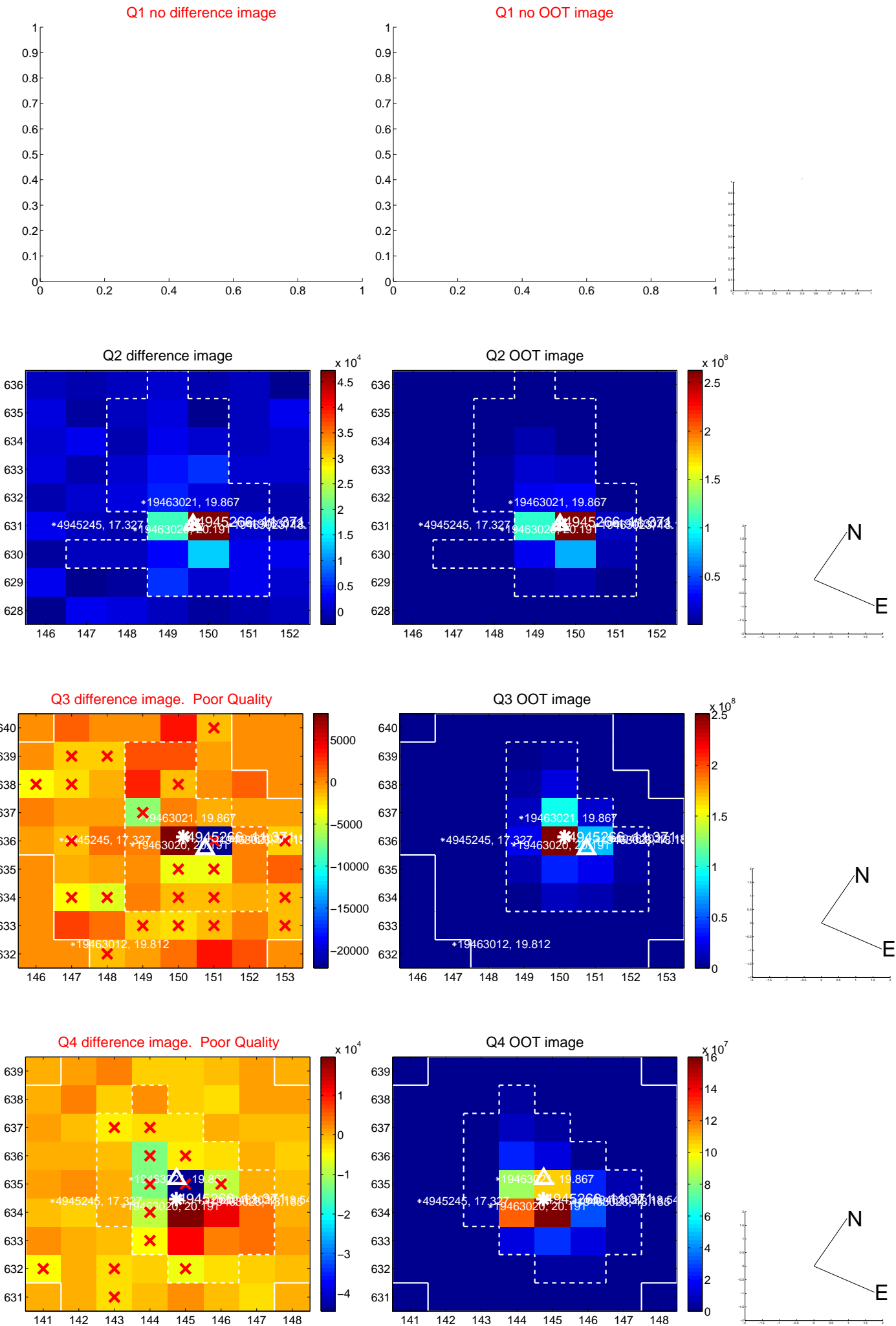
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.814 ± 0.593	1.37	-0.319 ± 1.328	-0.749 ± 0.683
PRF-fit source offset from KIC position	0.926 ± 0.543	1.70	-0.347 ± 1.091	-0.858 ± 0.666
photometric centroid source offset	0.21 ± 0.39	0.53	0.03 ± 0.43	-0.20 ± 0.39

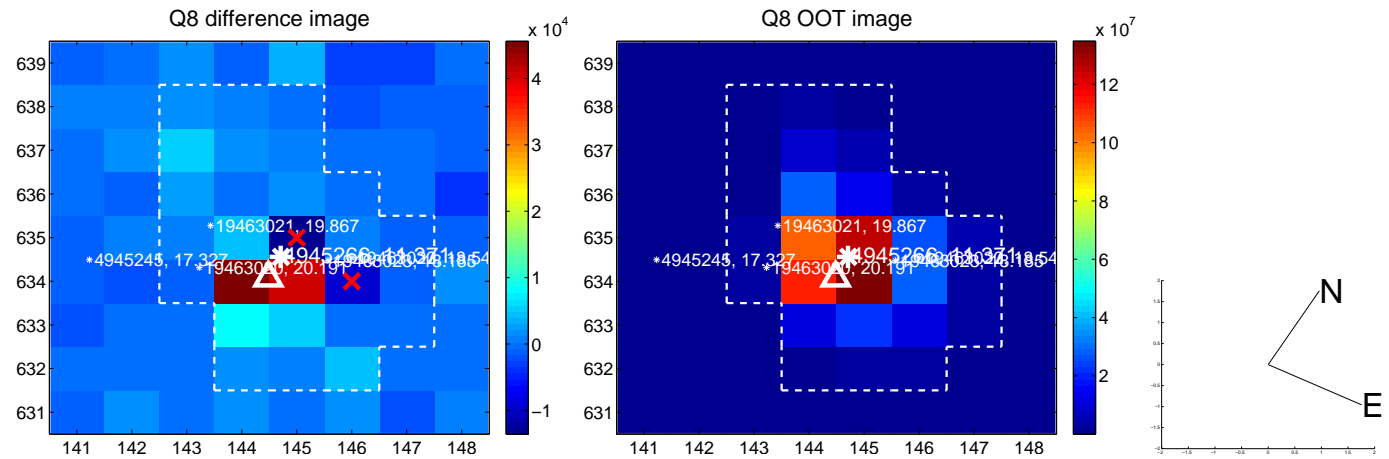
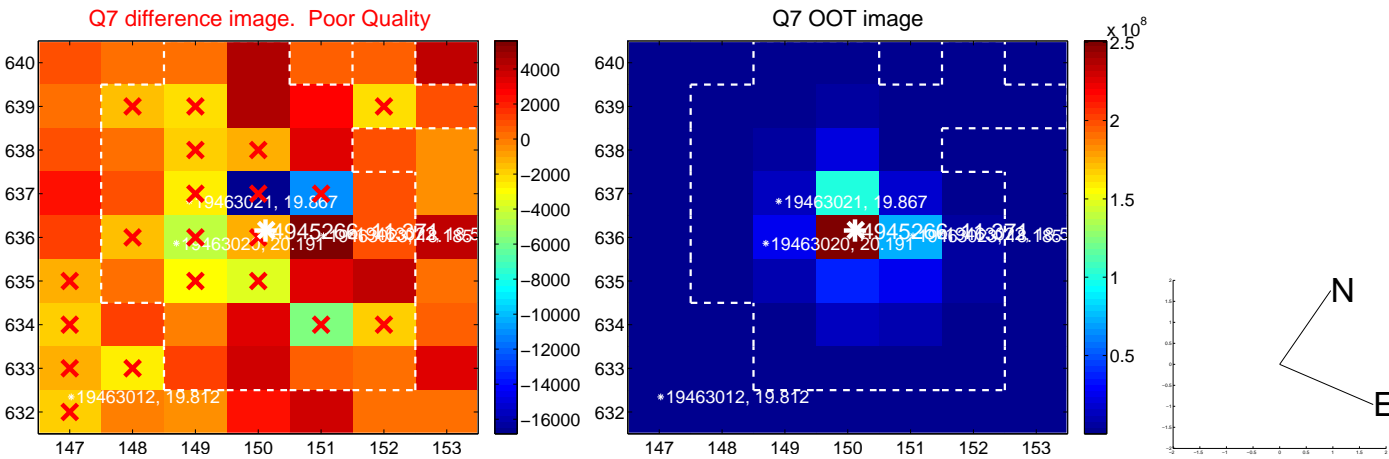
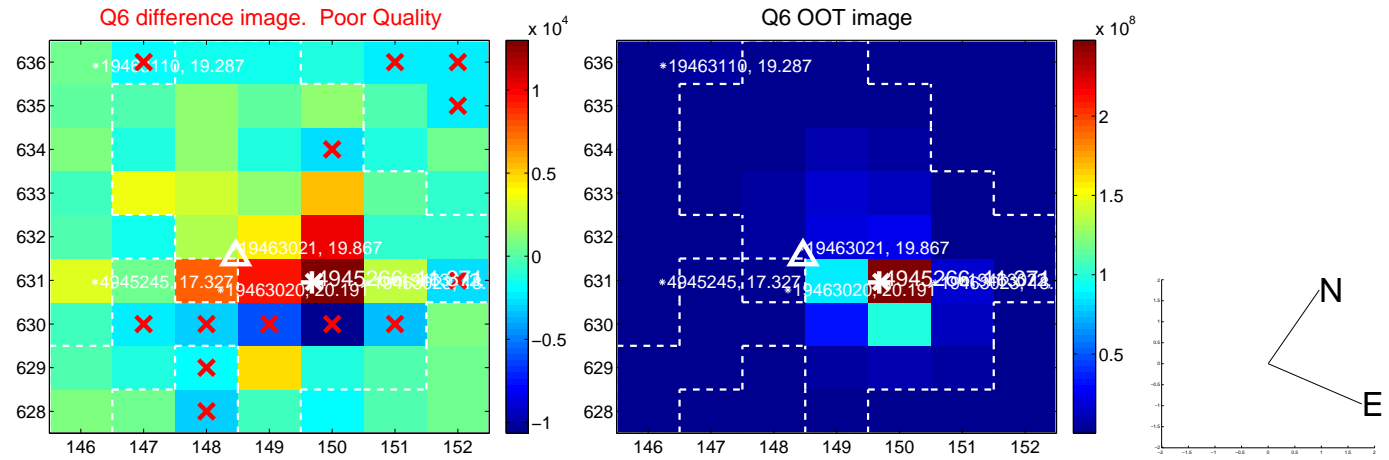
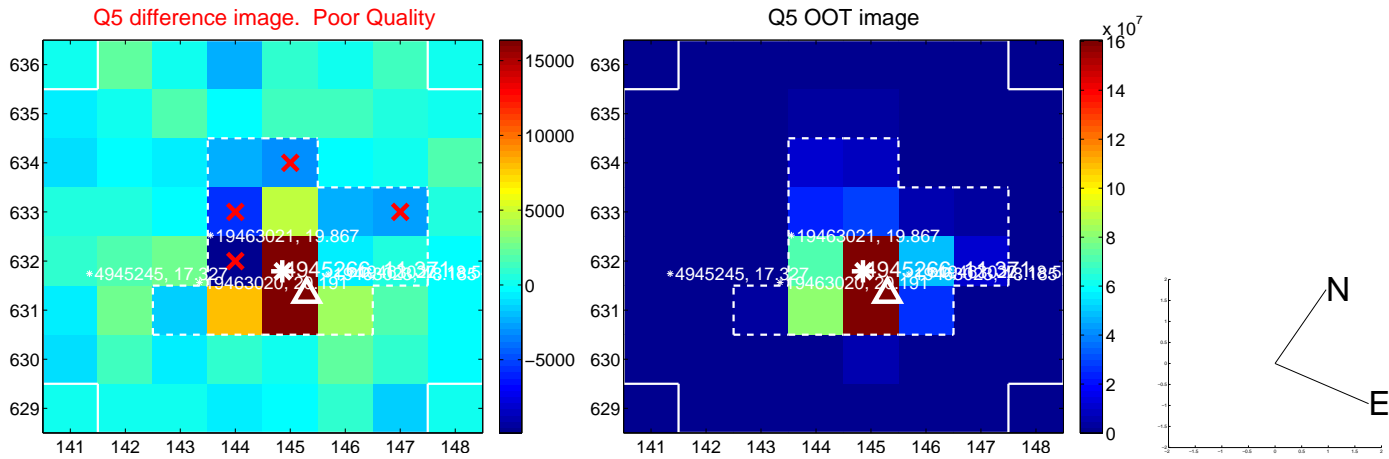


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

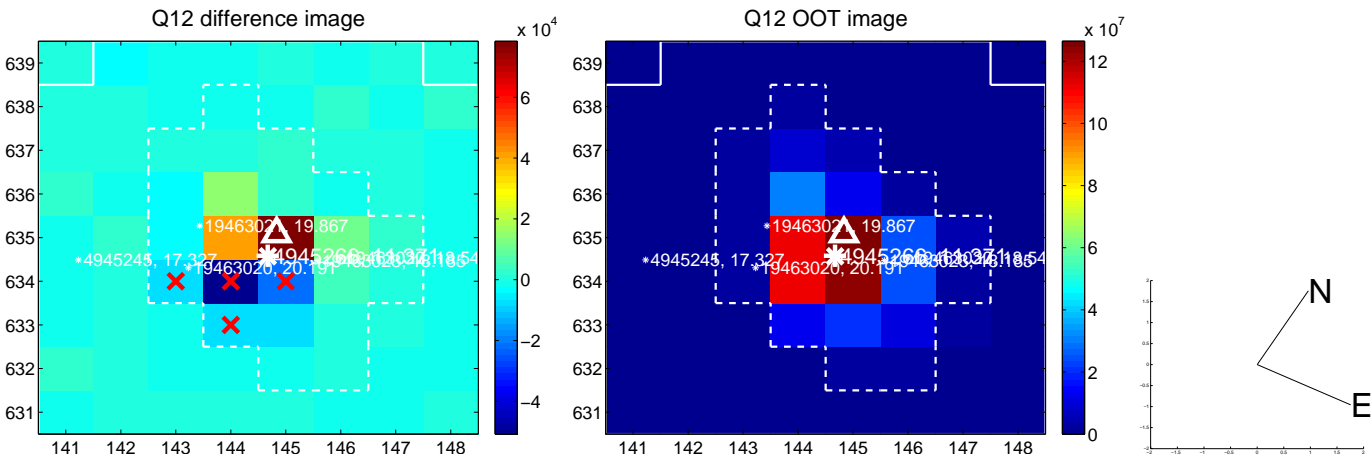
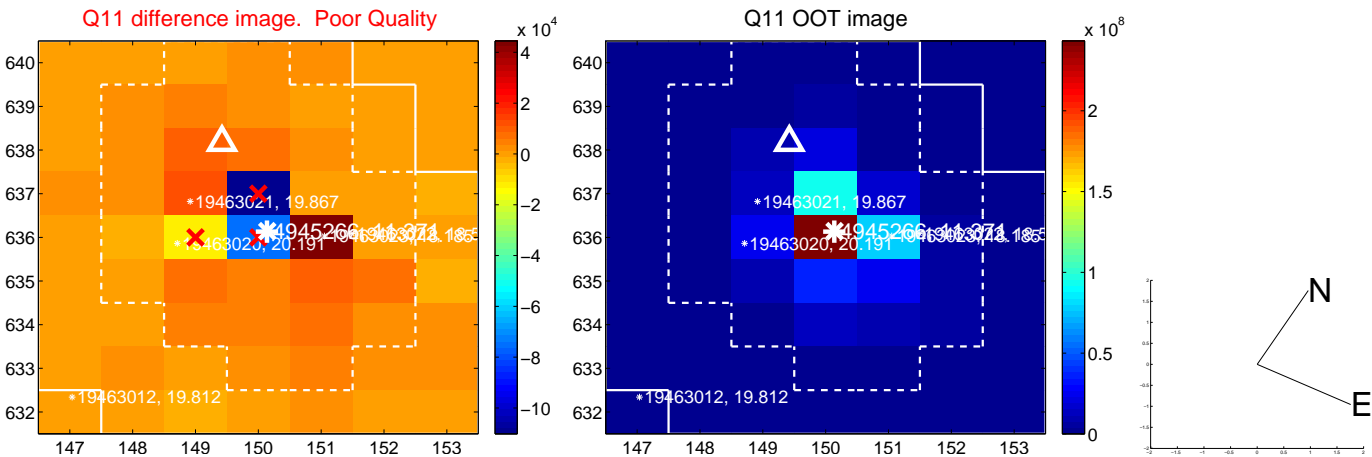
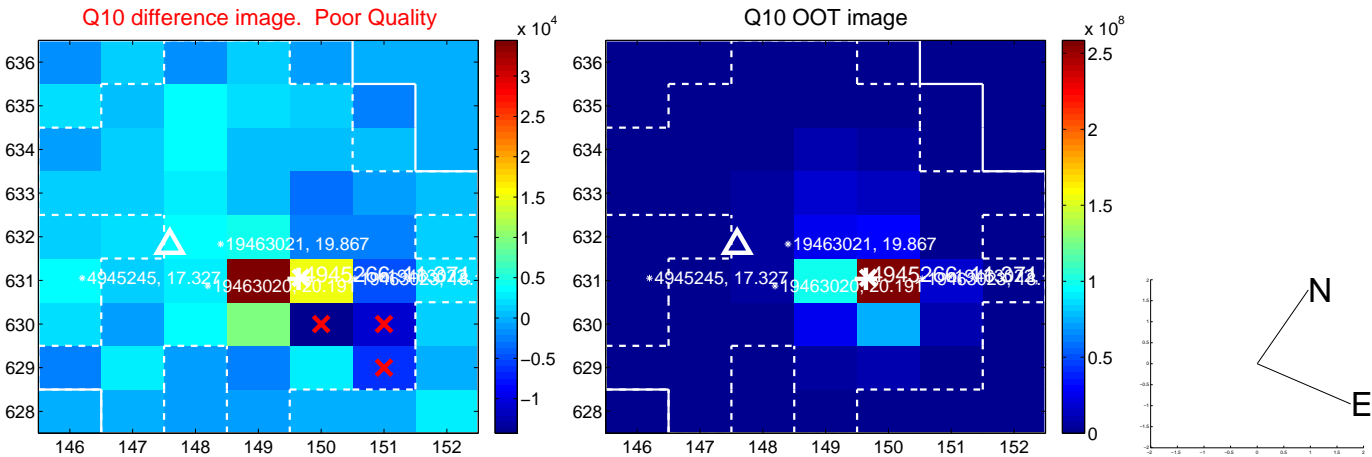
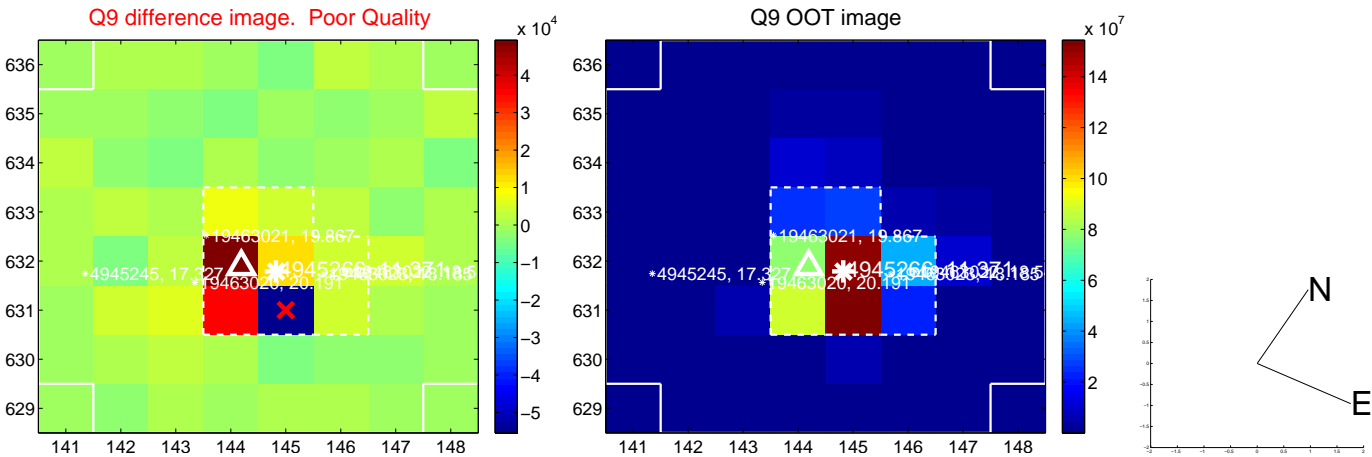
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



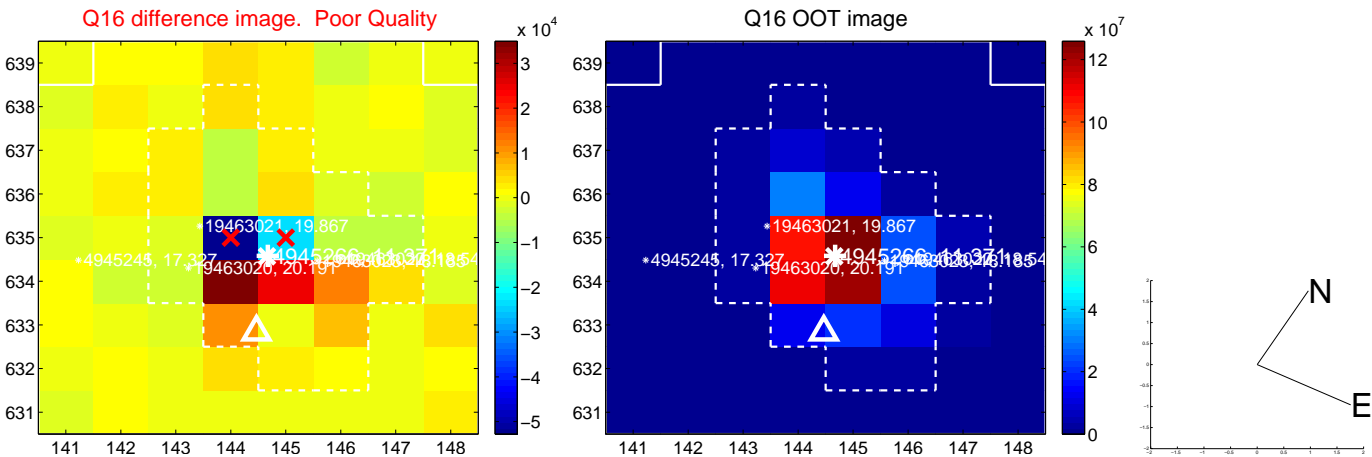
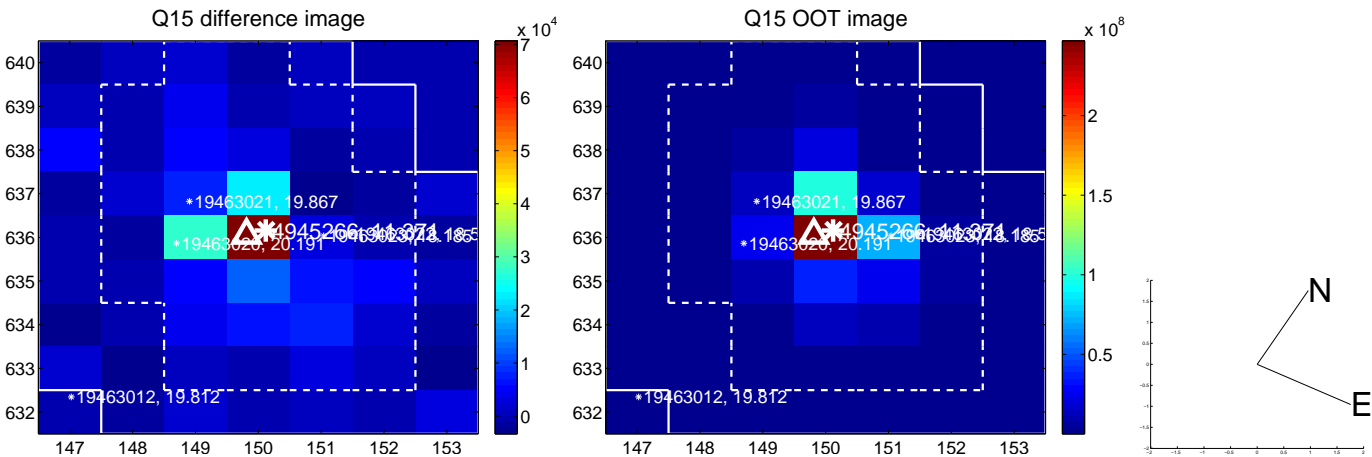
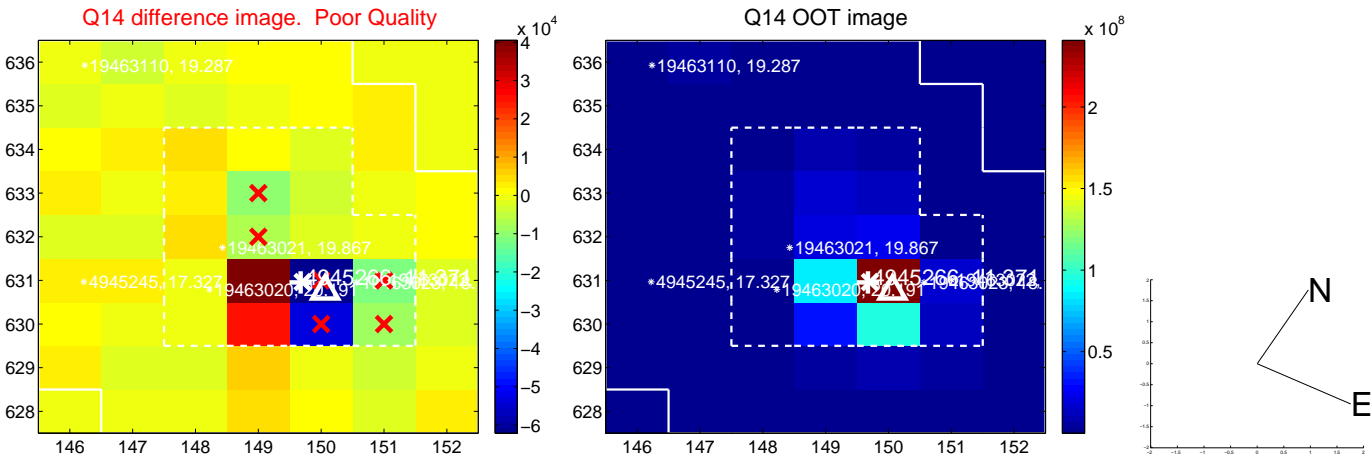
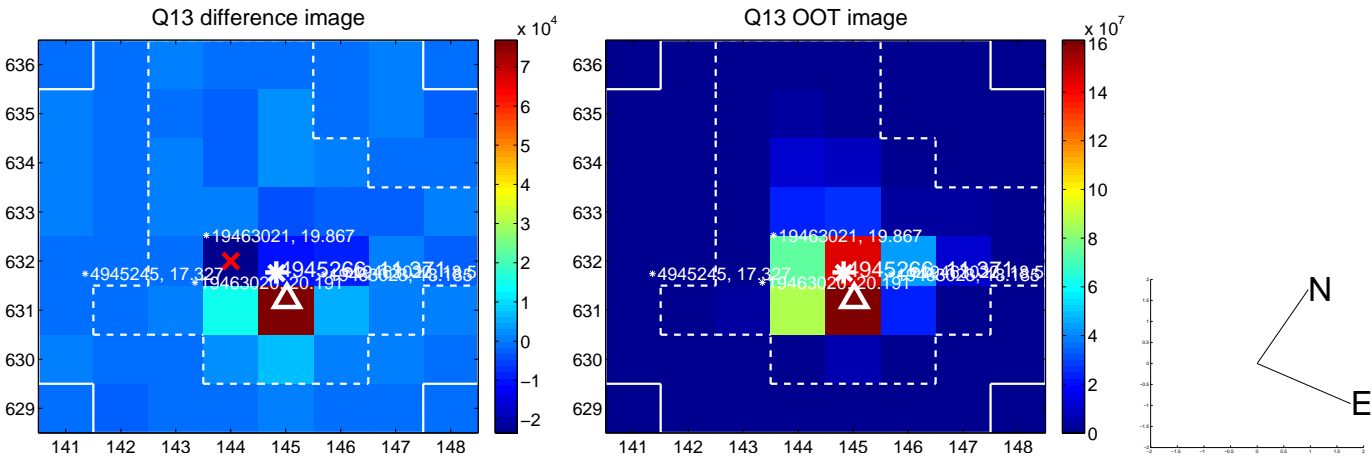
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



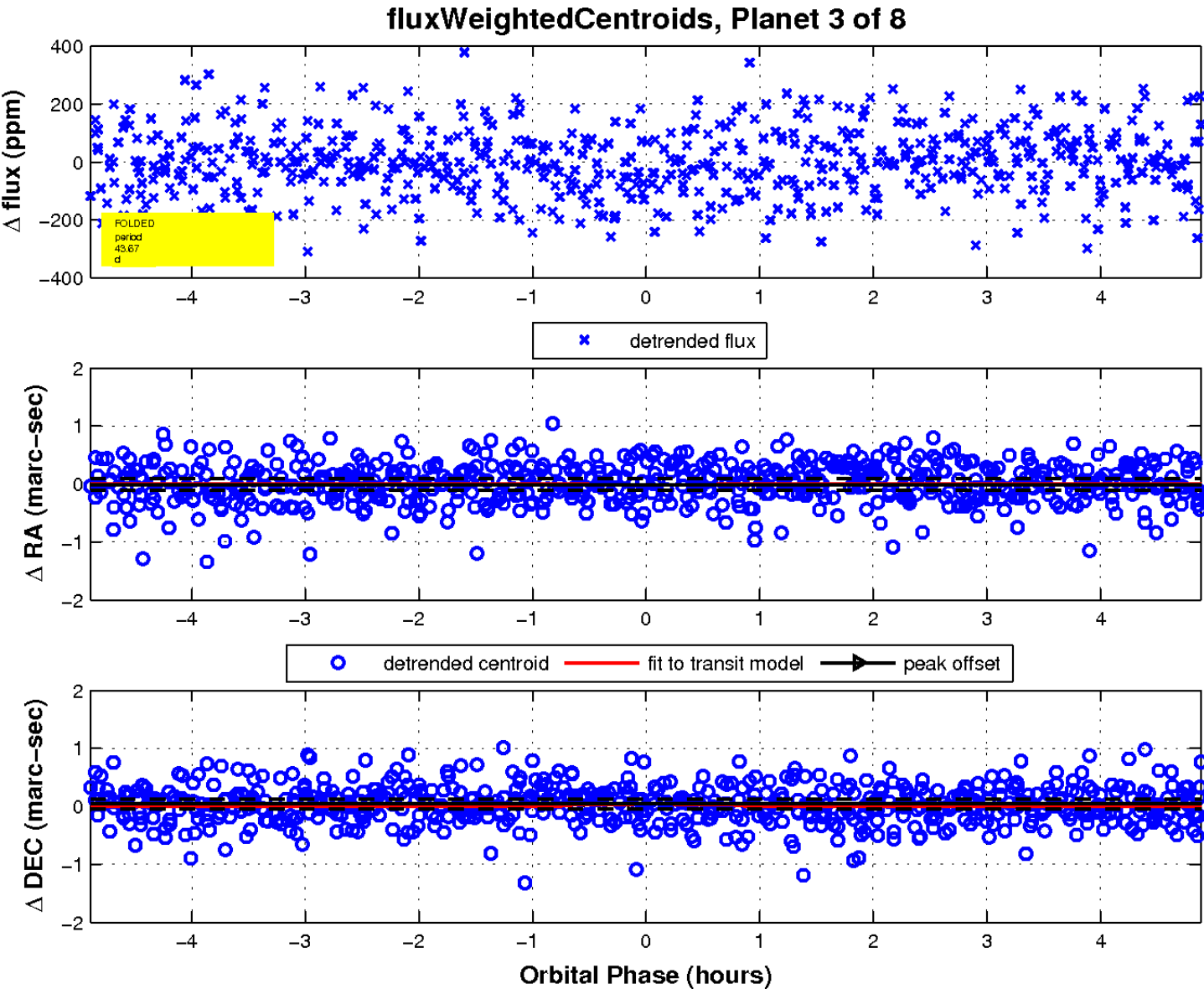
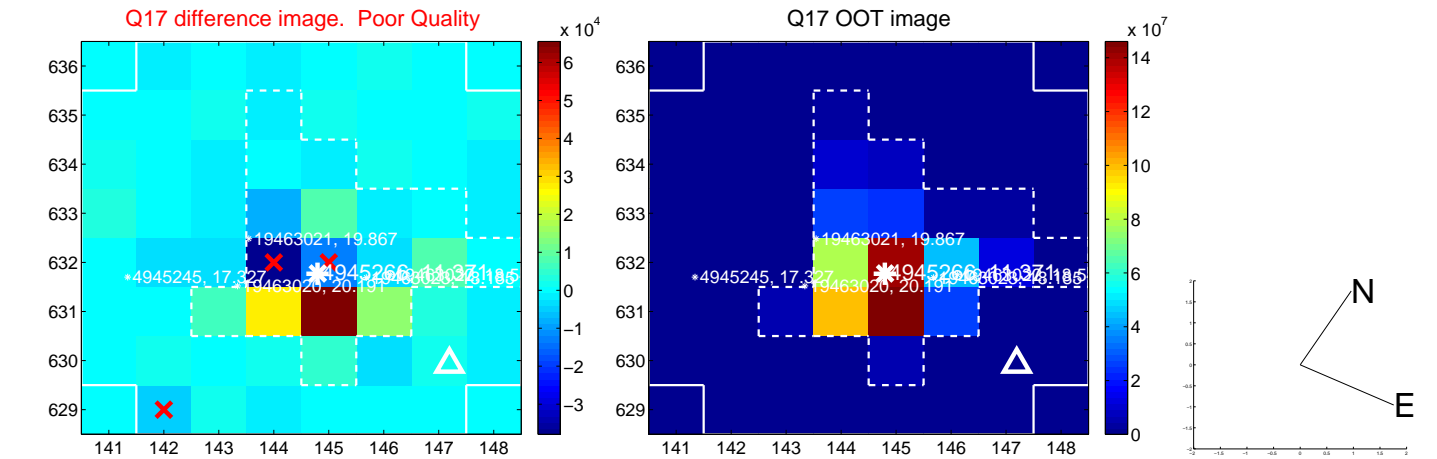
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

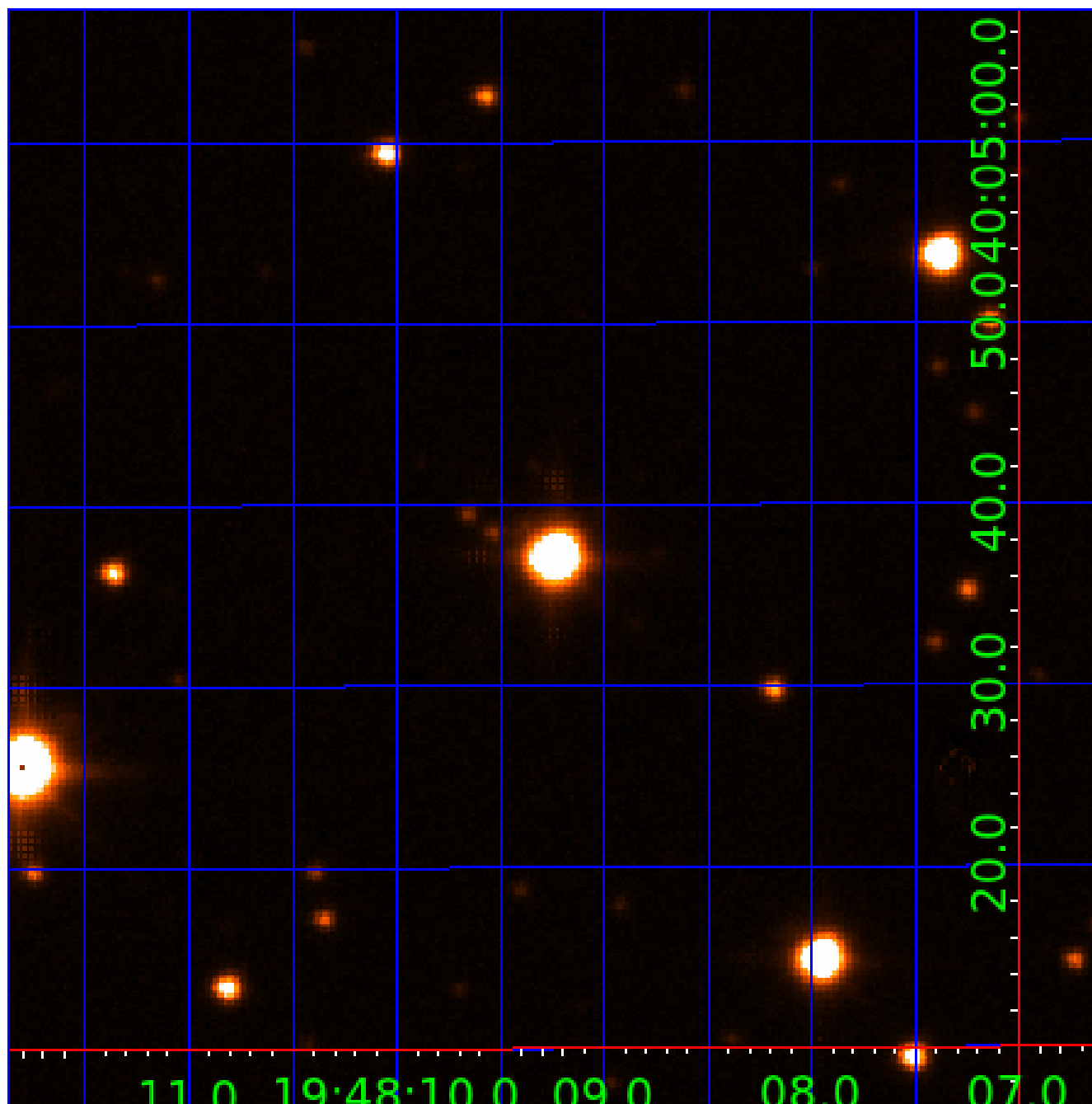


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 004945266

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})
004945266-01	OBS	No	1.197557	131.957025	3.7	7.974	8.7	2.6	1.77	6777	0.36	9611.85
004945266-02	OBS	No	197.254787	190.095347	218.2	4.735	12.6	9.4	1.77	6777	3.11	10.64
004945266-03	OBS	No	43.670555	173.893348	211.0	1.636	11.0	10.5	1.77	6777	2.97	79.48
004945266-04	OBS	No	58.180105	142.246997	118.0	6.605	9.6	8.6	1.77	6777	2.21	54.22
004945266-05	OBS	No	38.216314	166.445720	111.5	7.070	9.2	9.3	1.77	6777	2.06	94.96
004945266-06	OBS	No	239.524693	134.479079	196.6	26.074	10.3	10.2	1.77	6777	2.73	8.22
004945266-07	OBS	No	150.297522	241.464117	179.6	2.319	9.8	9.3	1.77	6777	2.69	15.30
004945266-08	OBS	No	25.564376	143.427468	169.2	1.330	10.0	10.1	1.77	6777	2.33	162.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004945266-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
004945266-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_SATURATED
004945266-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
004945266-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
004945266-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
004945266-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
004945266-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
004945266-08	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_SATURATED

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

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

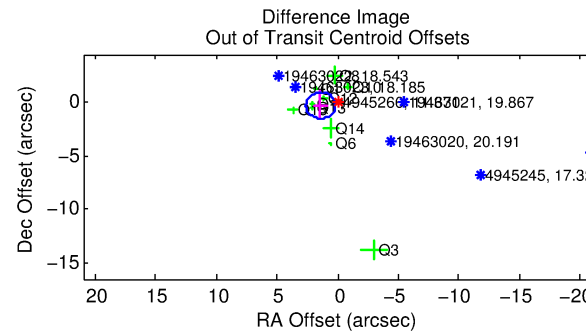
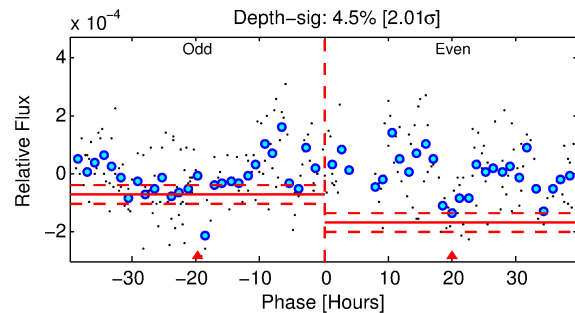
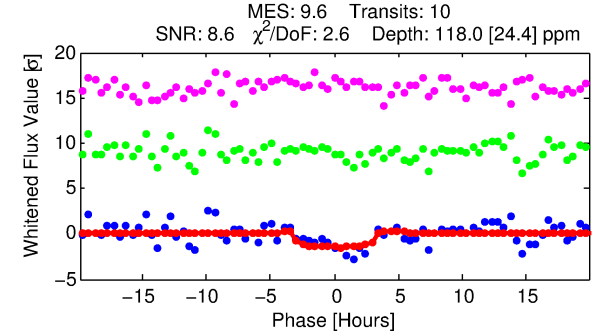
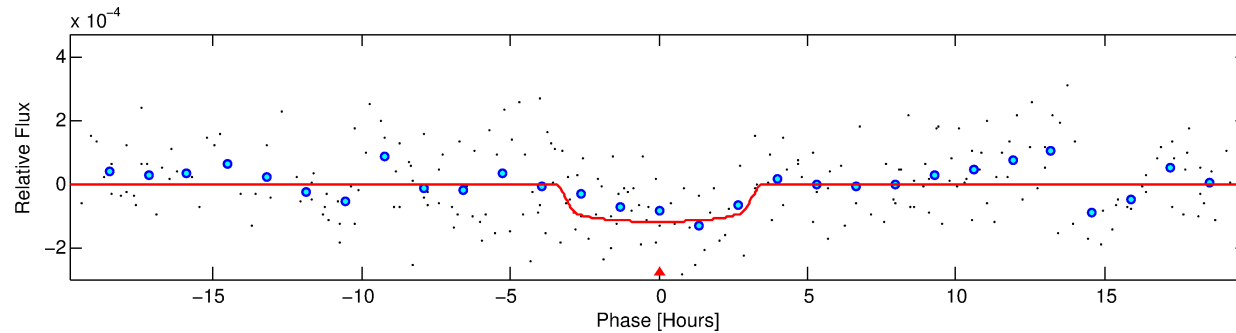
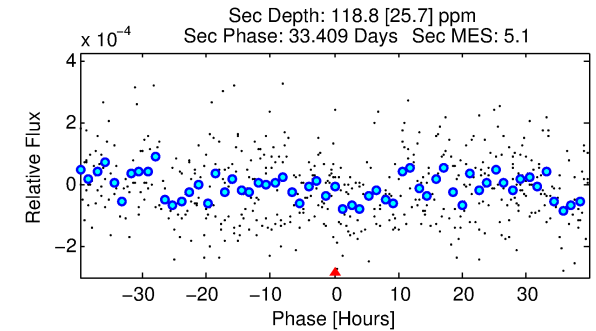
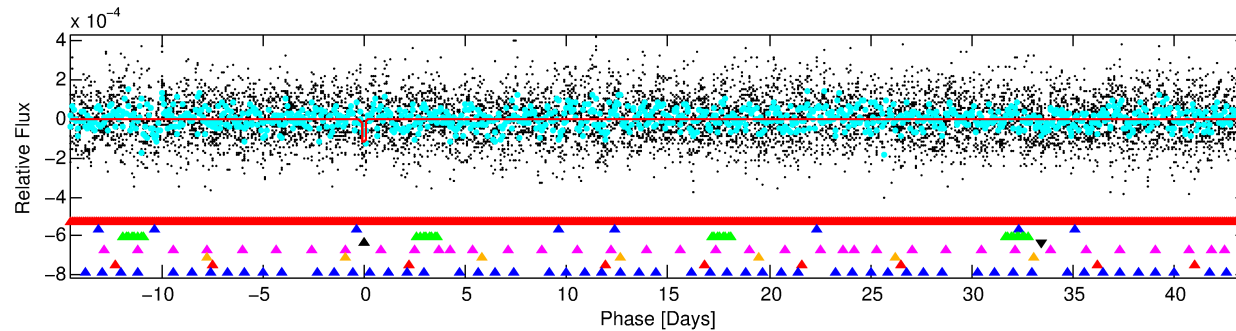
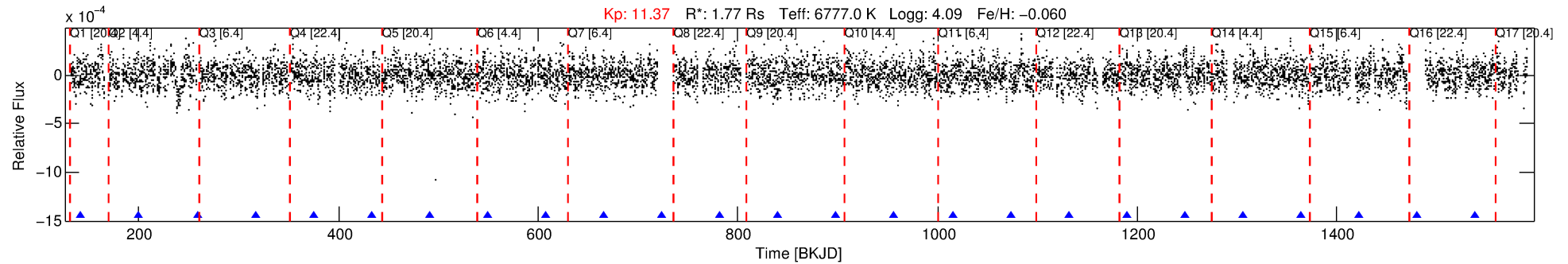
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004945266-04

No Significant Match Found

DV One-Page Summary

KIC: 4945266 Candidate: 4 of 8 Period: 58.180 d



DV Fit Results:

Period = 58.18010 [0.00111] d
Epoch = 142.2470 [0.0184] BKJD
Rp/R* = 0.0114 [0.0086]
a/R* = 33.33 [146.93]
b = 0.88 [1.12]
Seff = 54.22 [13.69]
Teq = 692 [44] K
Rp = 2.21 [1.72] Re
a = 0.3299 [0.0559] AU
Ag = 1461.16 [2249.96] [0.65σ]
Teffp = 6614 [2515] K [2.35σ]

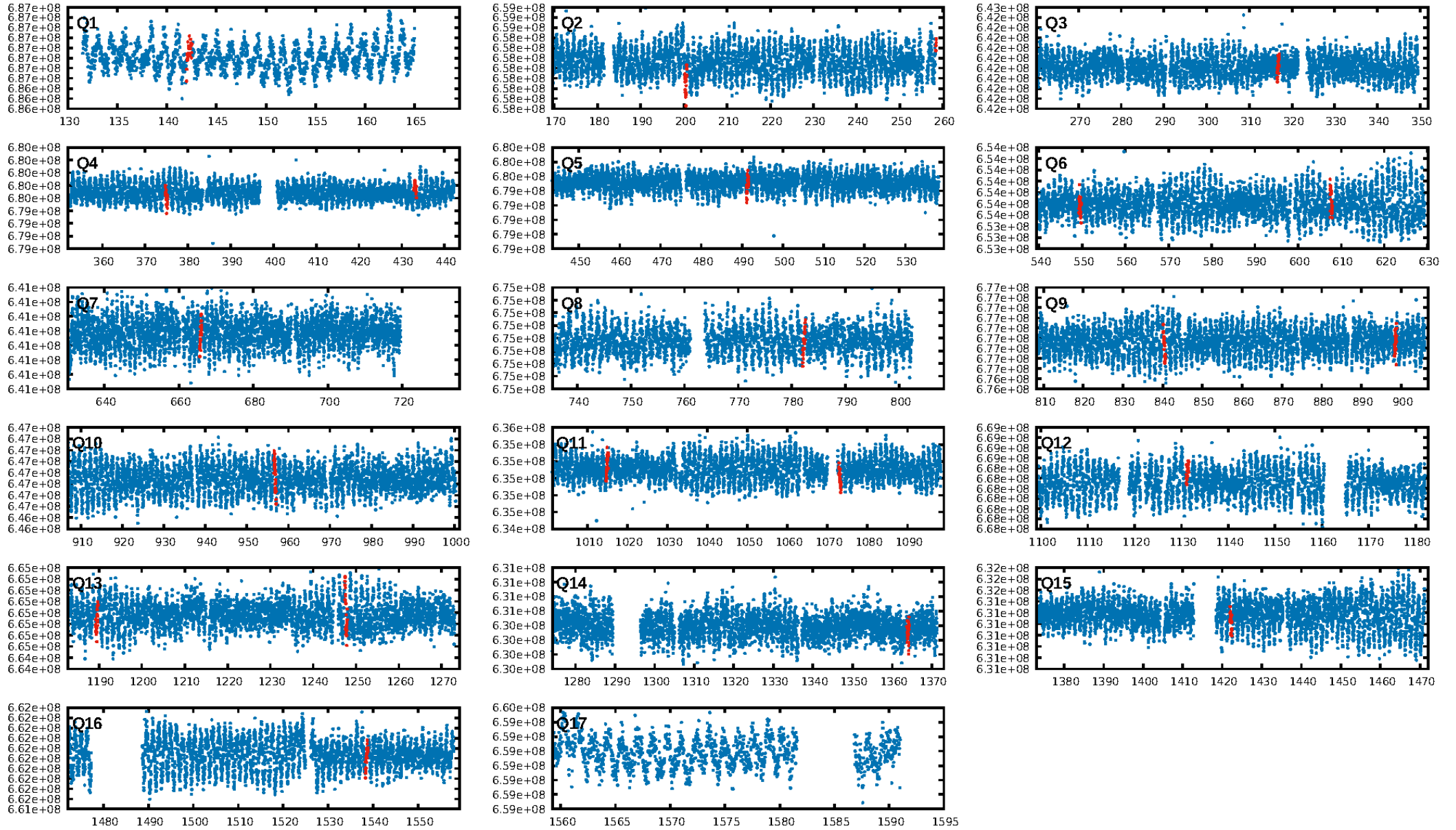
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [51.18σ]
LongPeriod-sig: 100.0% [315.83σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [9/9]
GhostDiagnostic-chr: 2.953
Centroid-sig: 3.4%
Centroid-so: 0.968 arcsec [1.76σ]
OotOffset-rm: 1.442 arcsec [3.53σ]
KicOffset-rm: 1.424 arcsec [3.35σ]
OotOffset-st: 3/3/2/2 [10]
KicOffset-st: 3/3/2/2 [10]
DiffImageQuality-fgm: 0.30 [3/10]
DiffImageOverlap-fno: 0.00 [0/15]

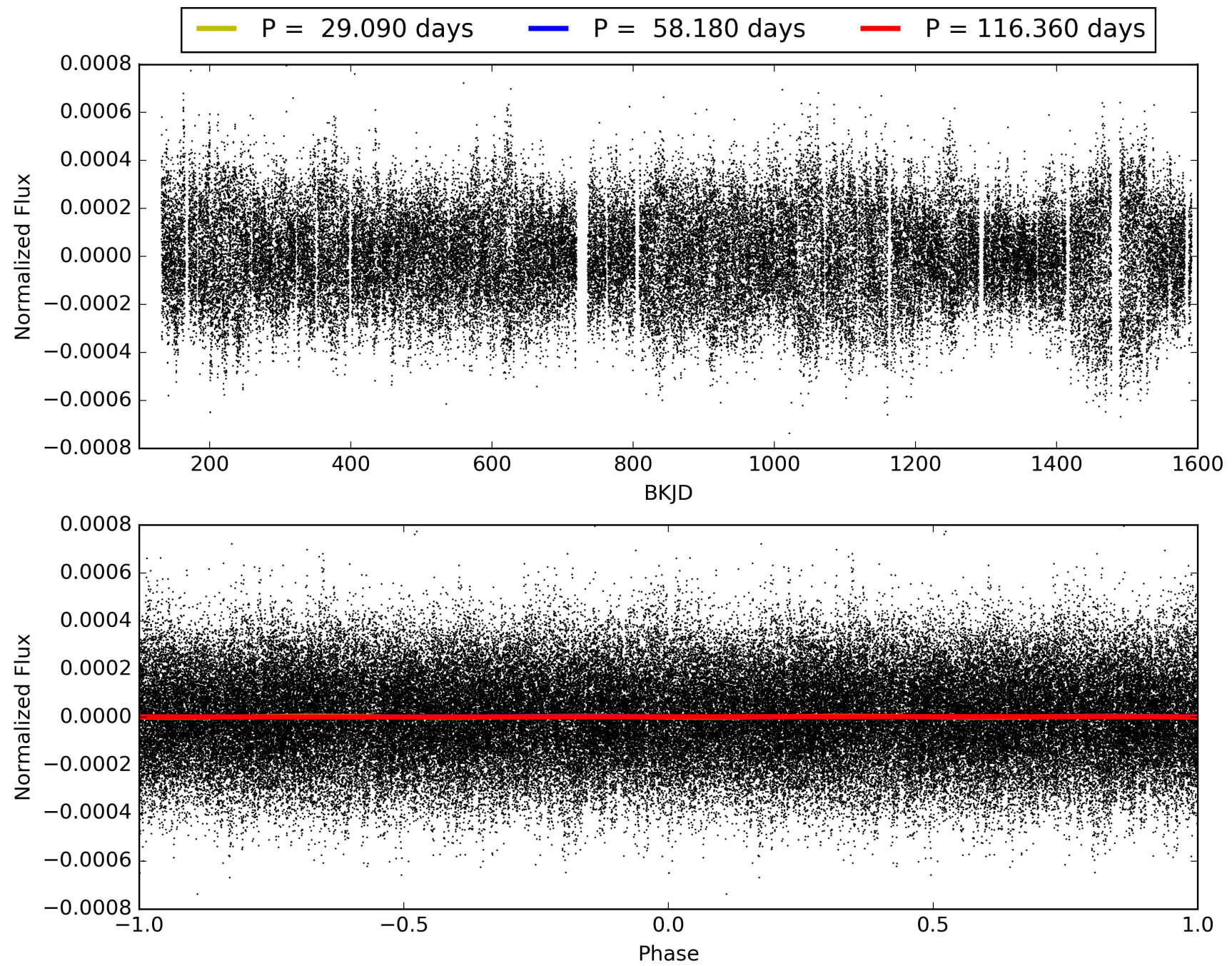
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:29:59 Z

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

TCE 004945266-04, PDC Light Curves

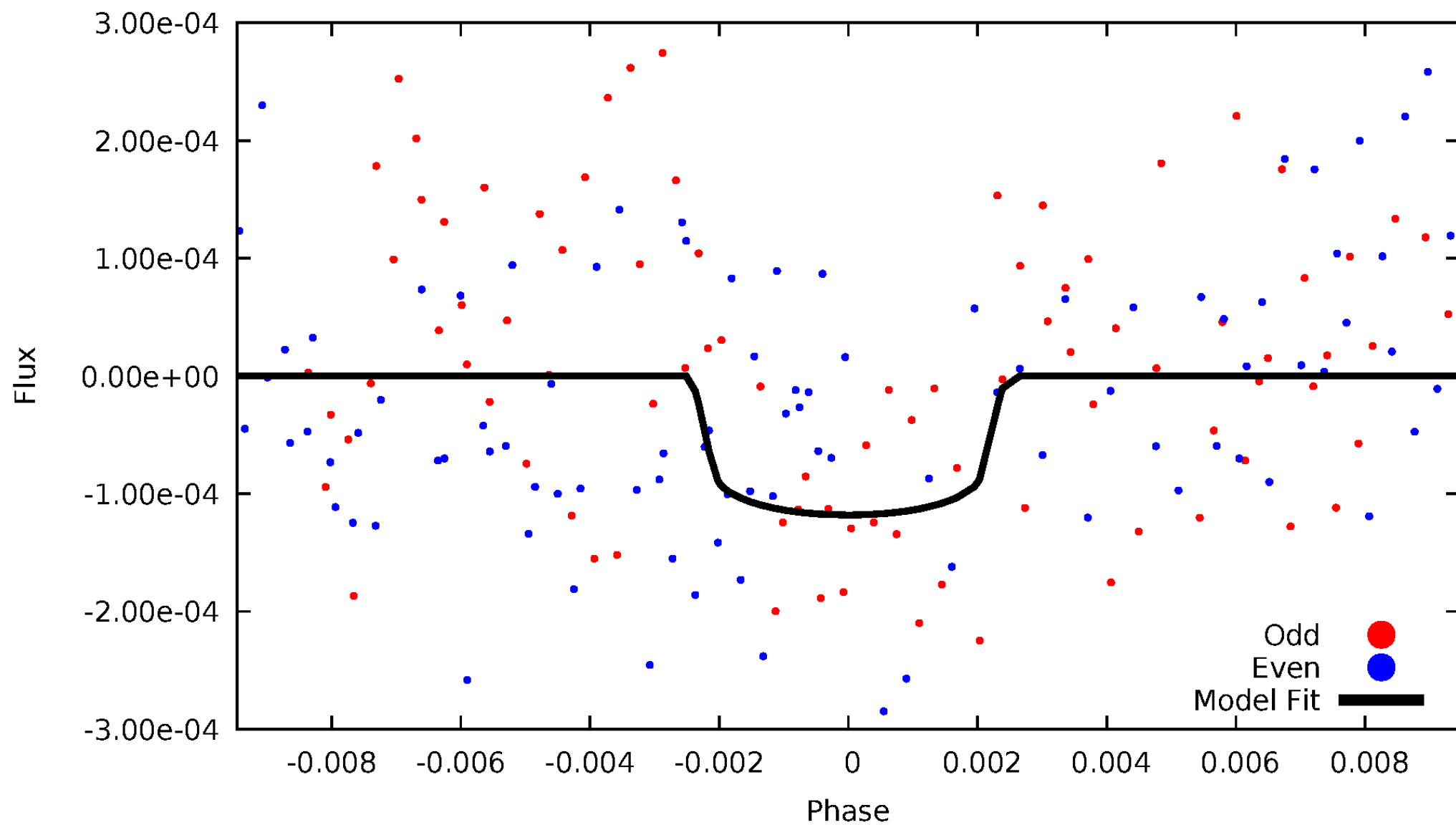


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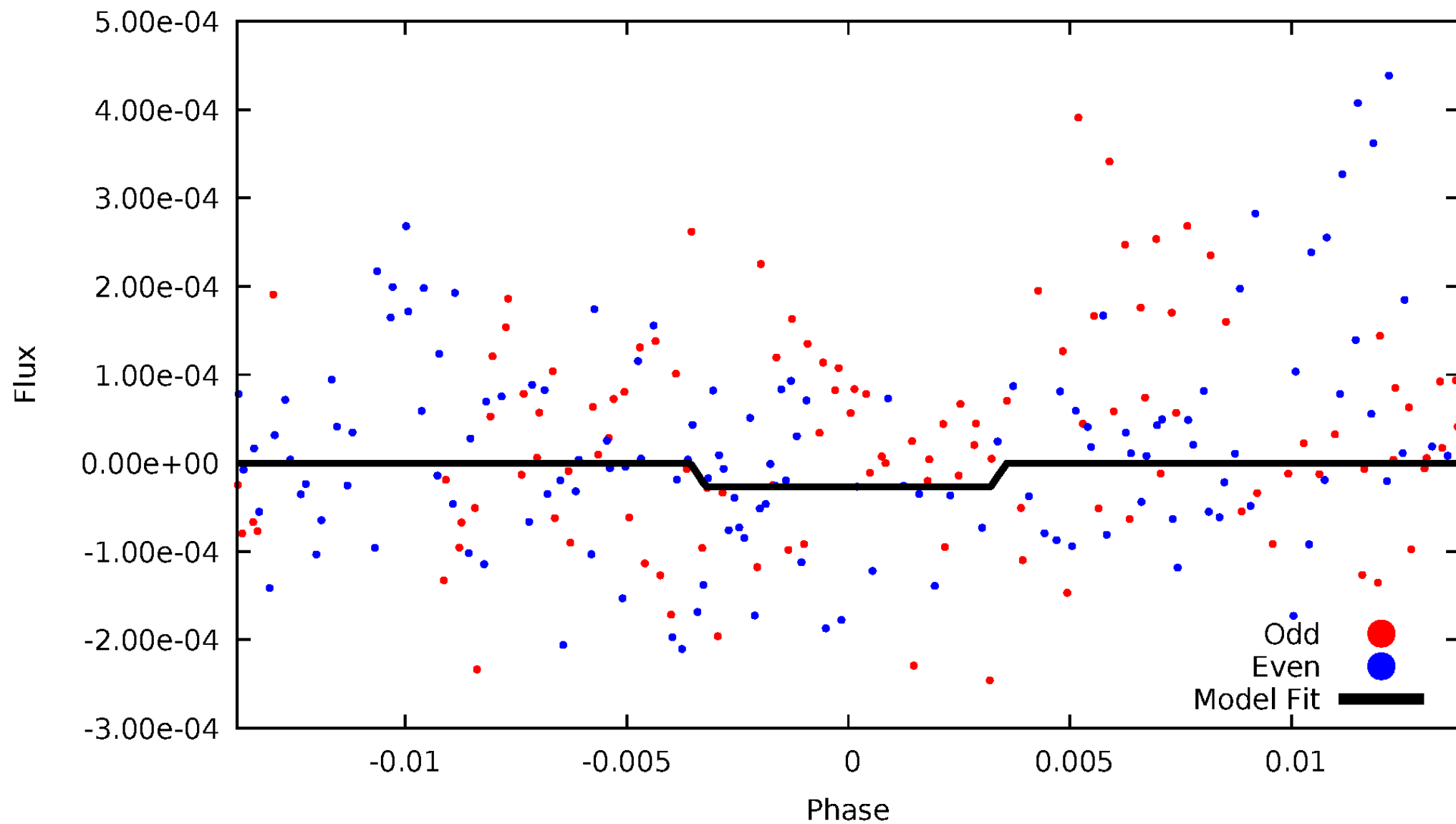
DV Odd/Even

TCE 004945266-04



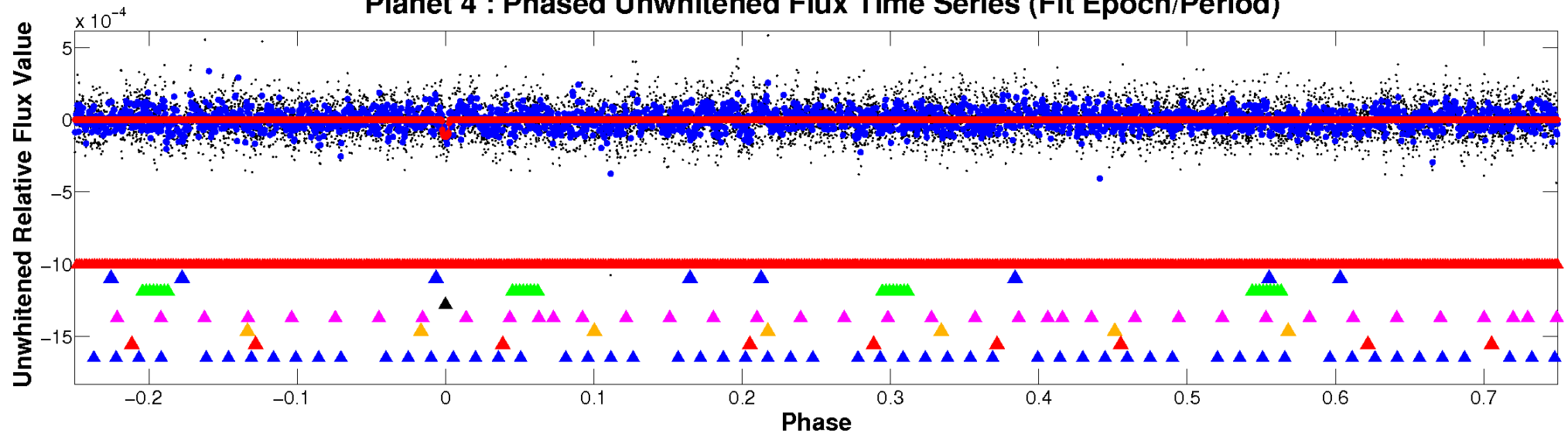
ALT Odd/Even

TCE 004945266-04

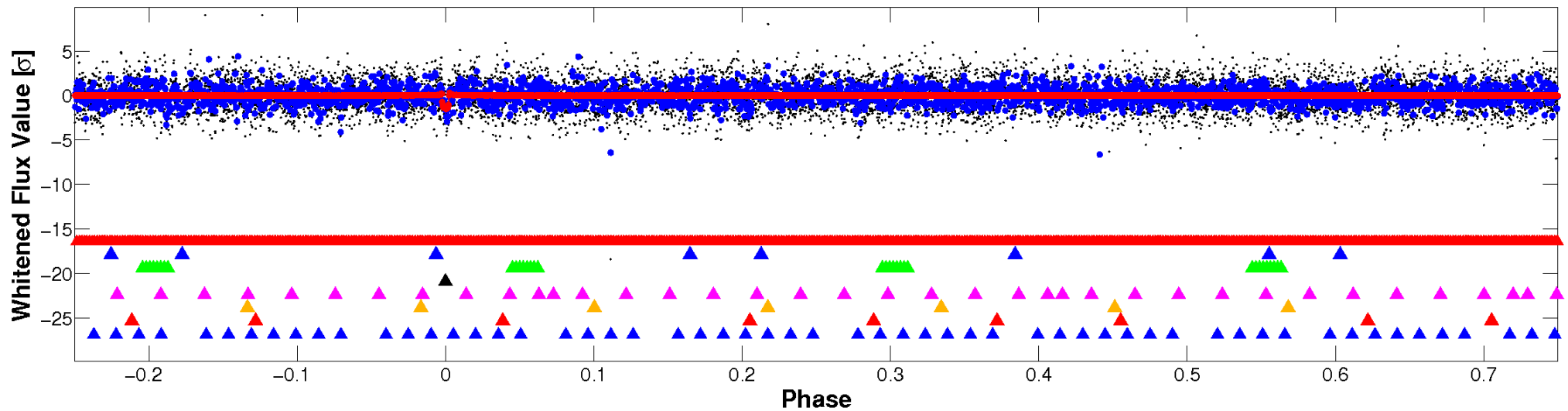


Non-Whitened Vs. Whitened Light Curve

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

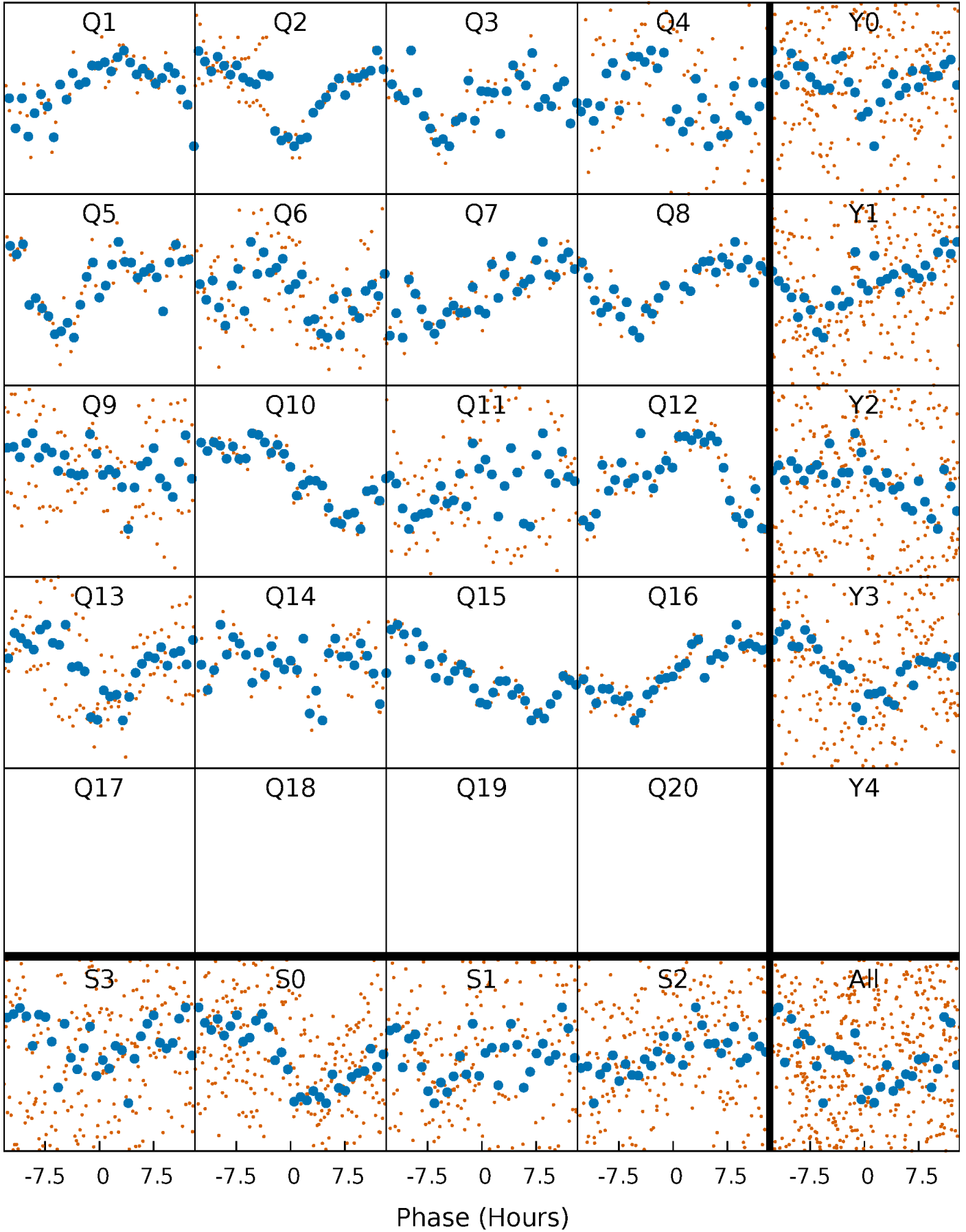


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



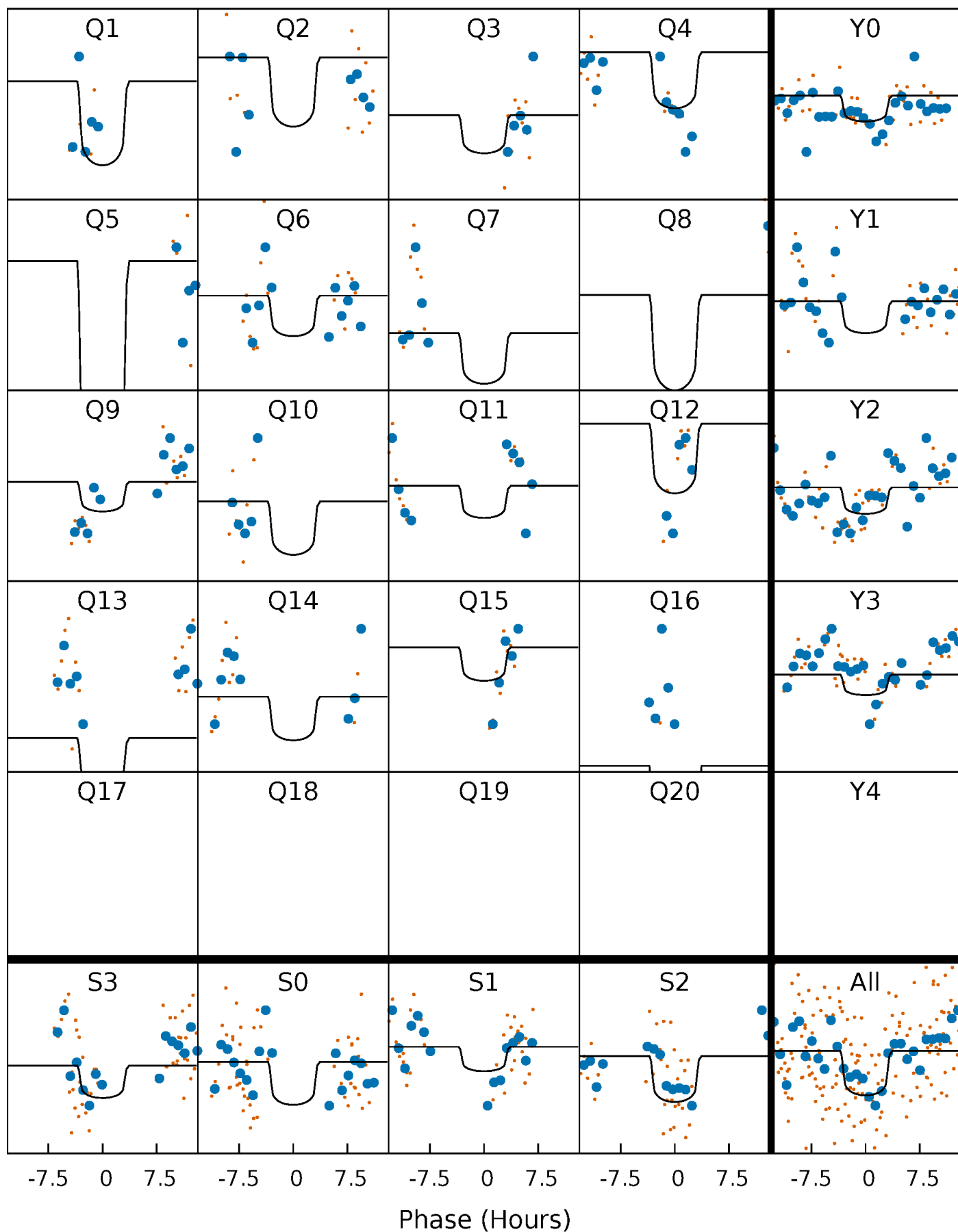
PDC Quarter-Phased Transit Curves

TCE 004945266-04 P= 58.180105 Days $T_0=142.246997$ (BKJD)



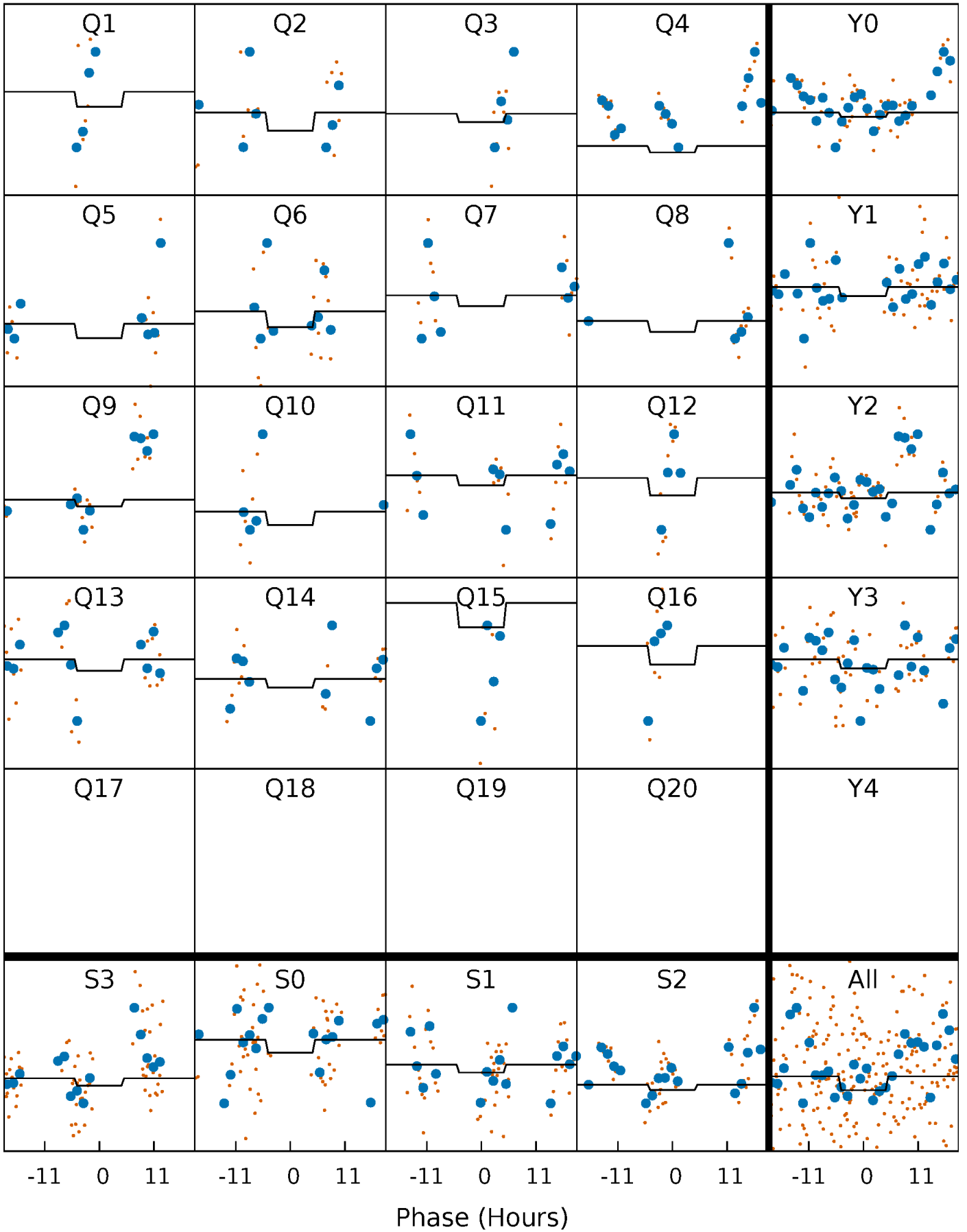
DV Quarter-Phased Transit Curves

TCE 004945266-04 P= 58.180105 Days $T_0=142.246997$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

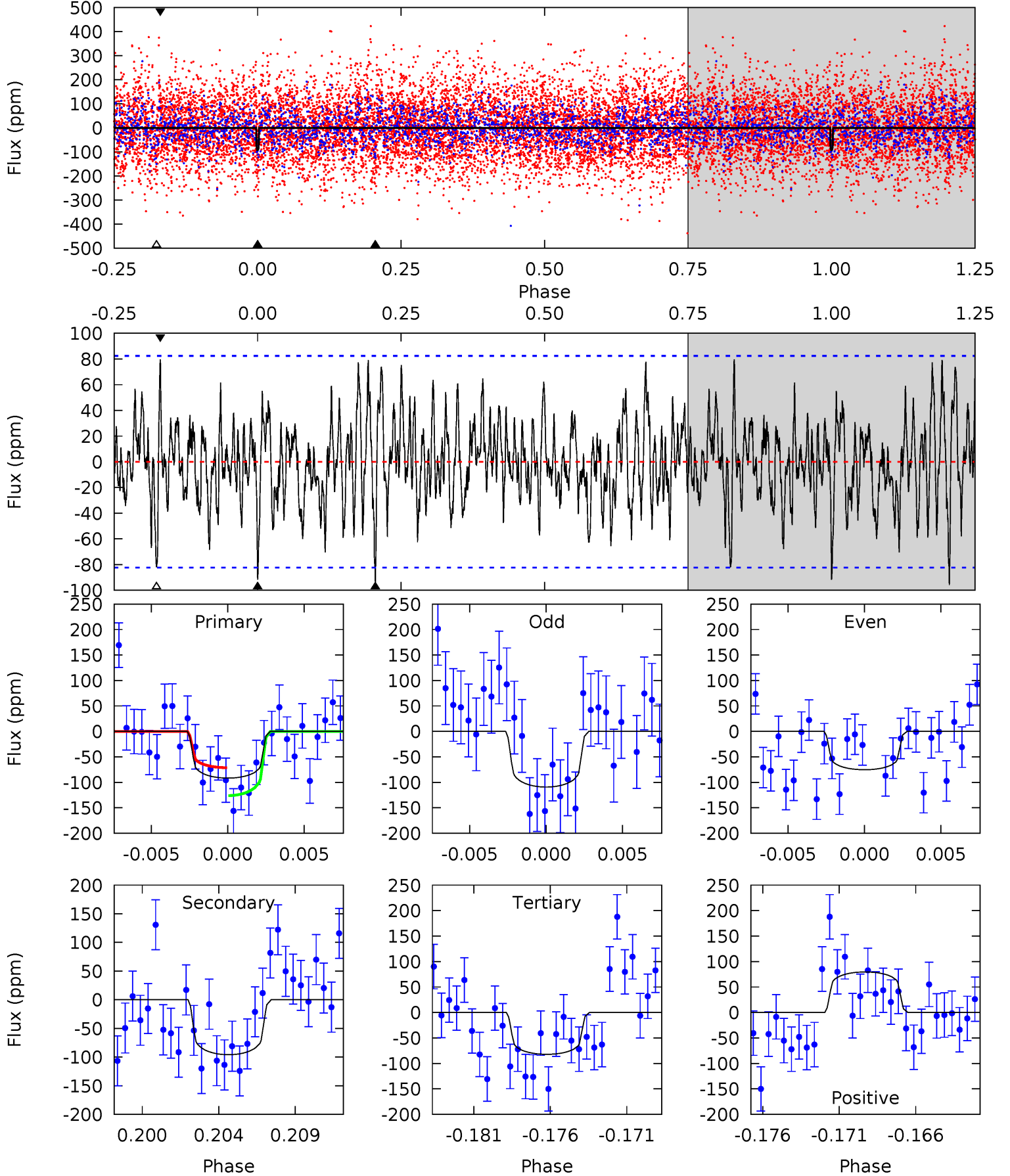
TCE 004945266-04 P= 58.181640 Days $T_0=142.274798$ (BKJD)



DV Model-Shift Uniqueness Test

004945266-04, P = 58.180105 Days, E = 84.066892 Days

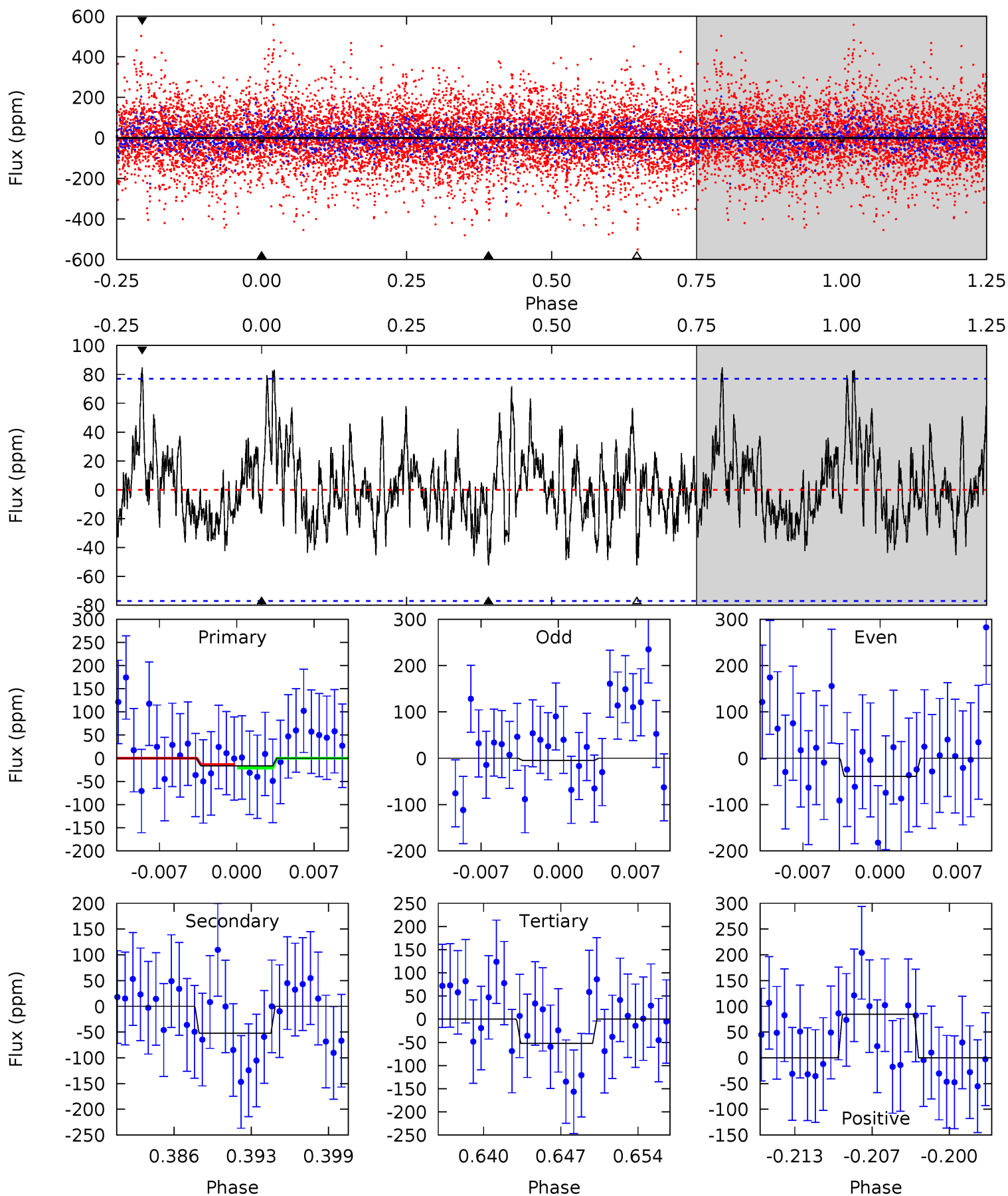
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.75	6.01	5.15	4.99	5.17	2.82	1.74	0.60	0.76	0.86	1.02	1.08	0.89	0.45	1.66



Alt Model-Shift Uniqueness Test

004945266-04, P = 58.181640 Days, E = 84.093158 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.09	3.46	3.46	5.60	5.10	2.70	1.48	-2.37	-4.51	0.00	-2.14	1.14	1.01	0.62	0.24



Stellar Parameters For KIC 004945266

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6777^{+71}_{-91}	$4.094^{+0.135}_{-0.135}$	$-0.060^{+0.150}_{-0.150}$	$1.767^{+0.355}_{-0.323}$	$1.422^{+0.116}_{-0.129}$	$0.363^{+0.234}_{-0.142}$
	+1%/-1%	+3%/-3%	+250%/-250%	+20%/-18%	+8%/-9%	+64%/-39%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 004945266-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-96 ± 16	$2.44^{+1.41}_{-1.46}$	967^{+51}_{-45}	5916^{+4422}_{-1104}	929^{+5008}_{-563}
Alt.	-52 ± 15	$1.59^{+1.48}_{-1.08}$	967^{+48}_{-44}	6257^{+8051}_{-1624}	1226^{+12171}_{-909}

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 $A_{obs} \gg 1.0$

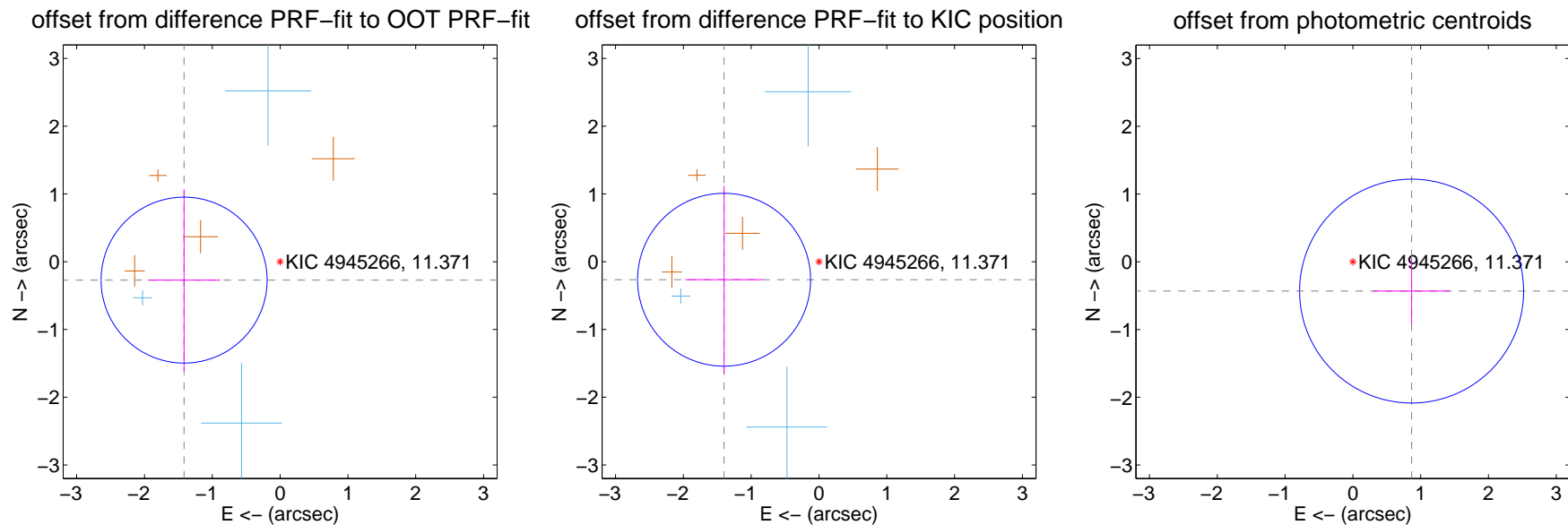
DV Centroid Data

Supplemental centroid analysis for 004945266-04. **Kepler magnitude: 11.37.** Transit SNR 8.63

There are 3 quarters with good PRF difference image offsets

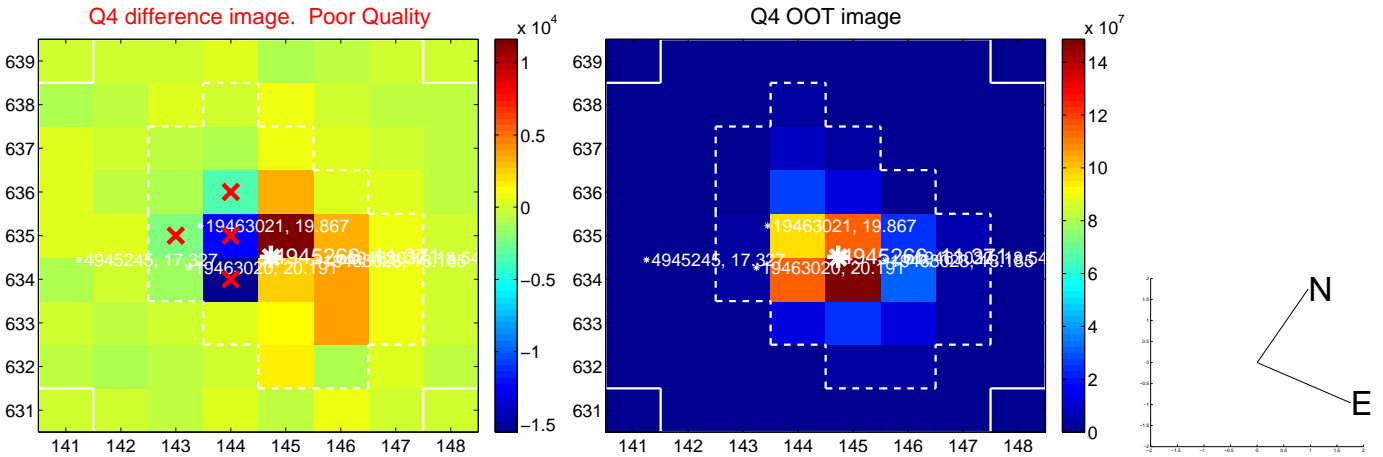
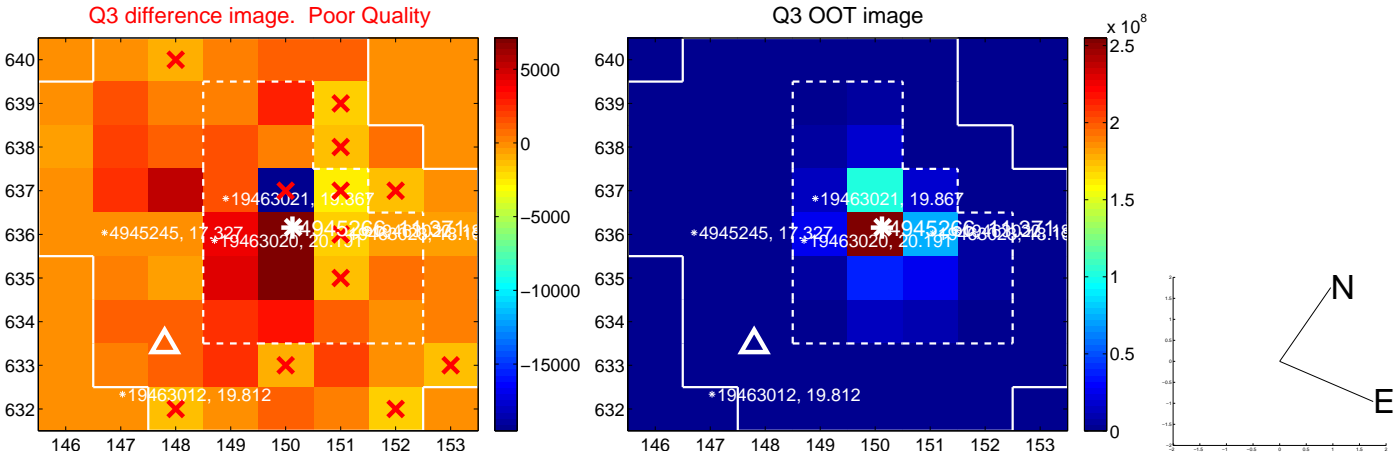
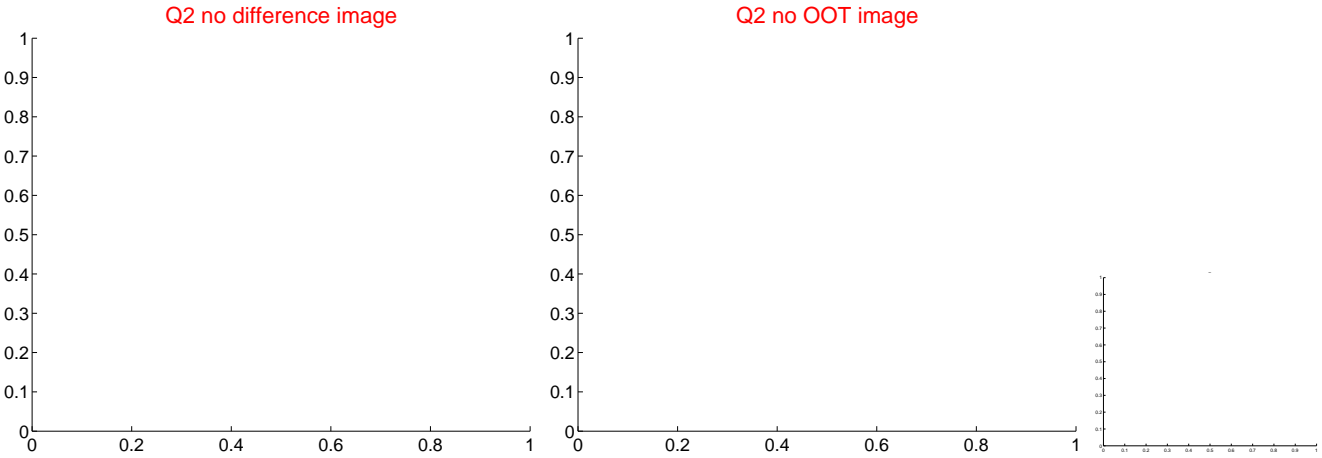
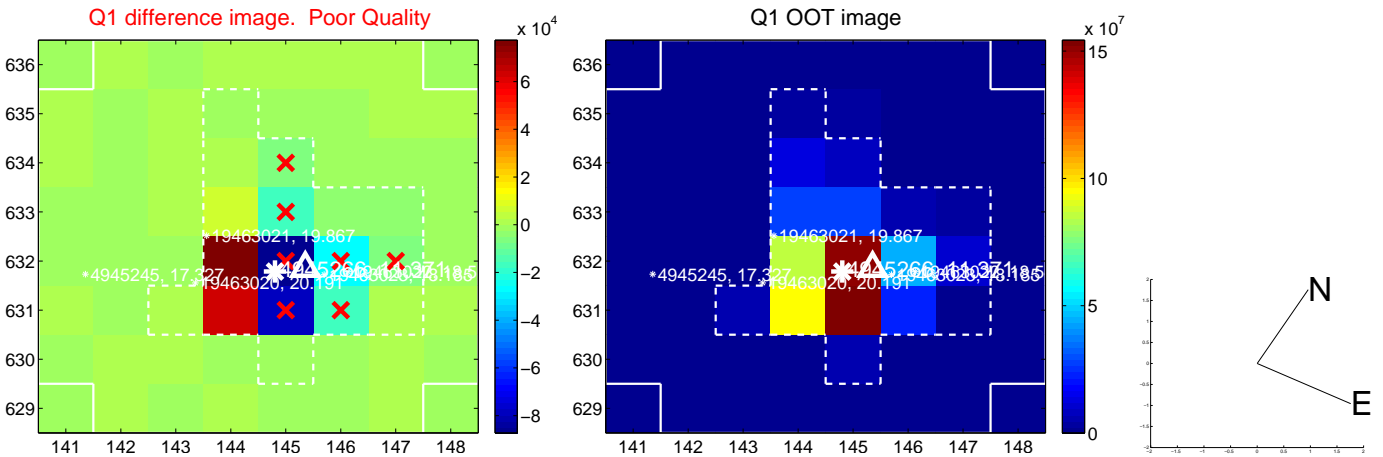
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.442 ± 0.408	3.53	1.416 ± 0.536	-0.272 ± 1.340
PRF-fit source offset from KIC position	1.424 ± 0.425	3.35	1.399 ± 0.573	-0.266 ± 1.387
photometric centroid source offset	0.97 ± 0.55	1.76	-0.87 ± 0.56	-0.43 ± 0.49

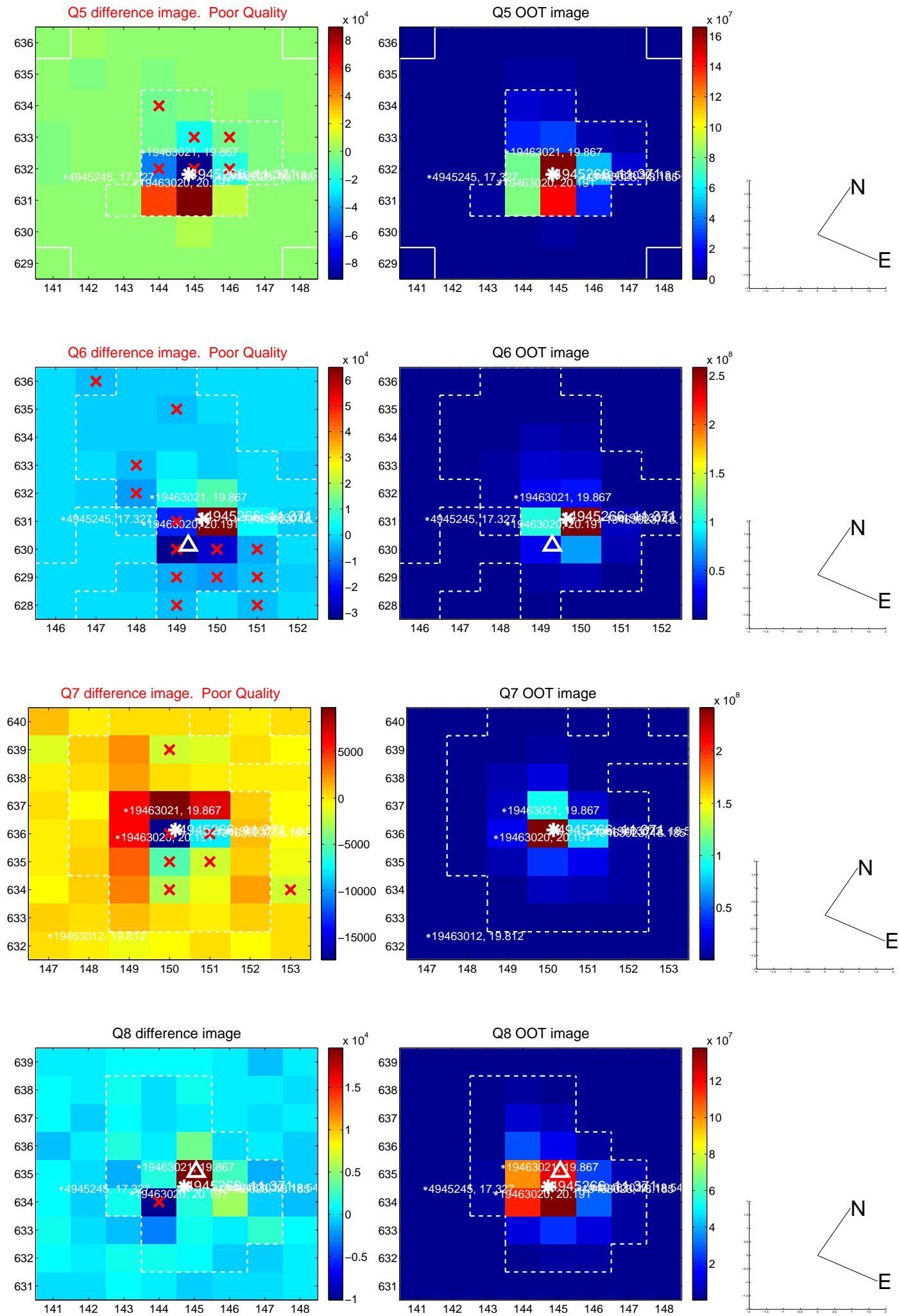


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

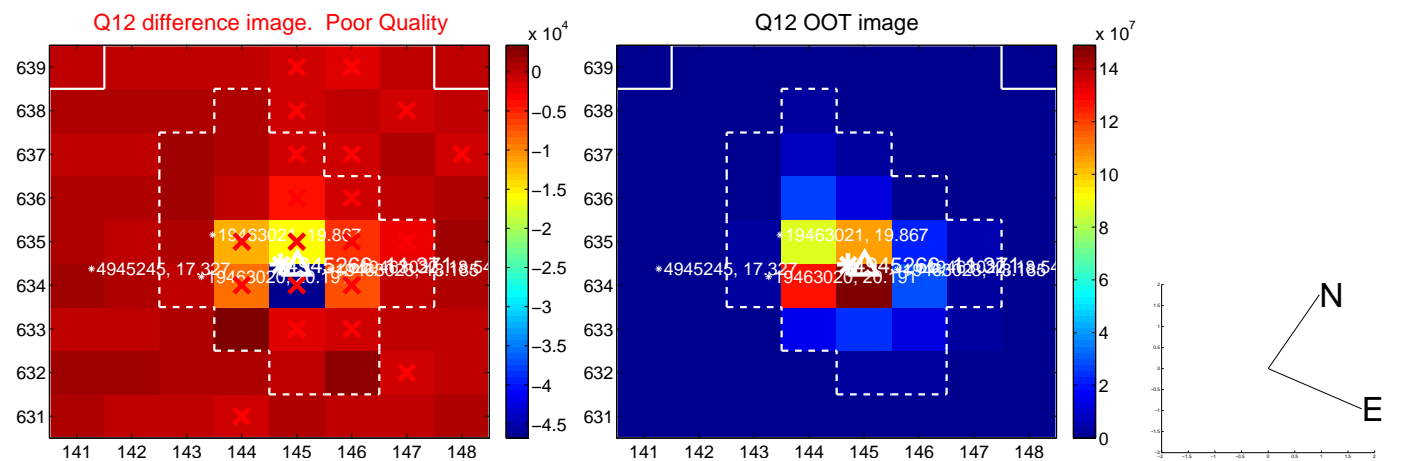
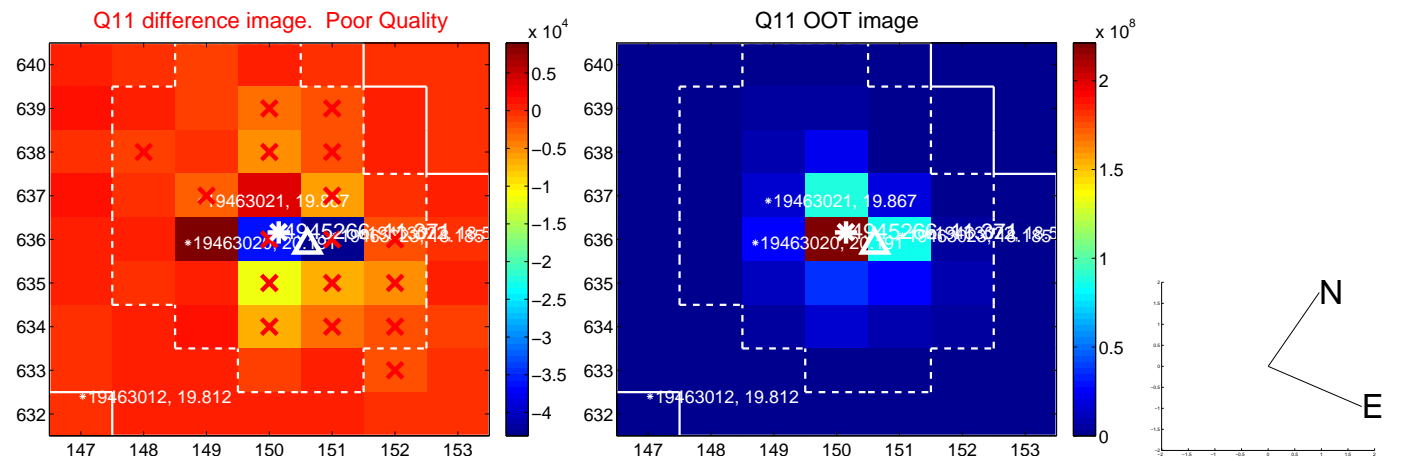
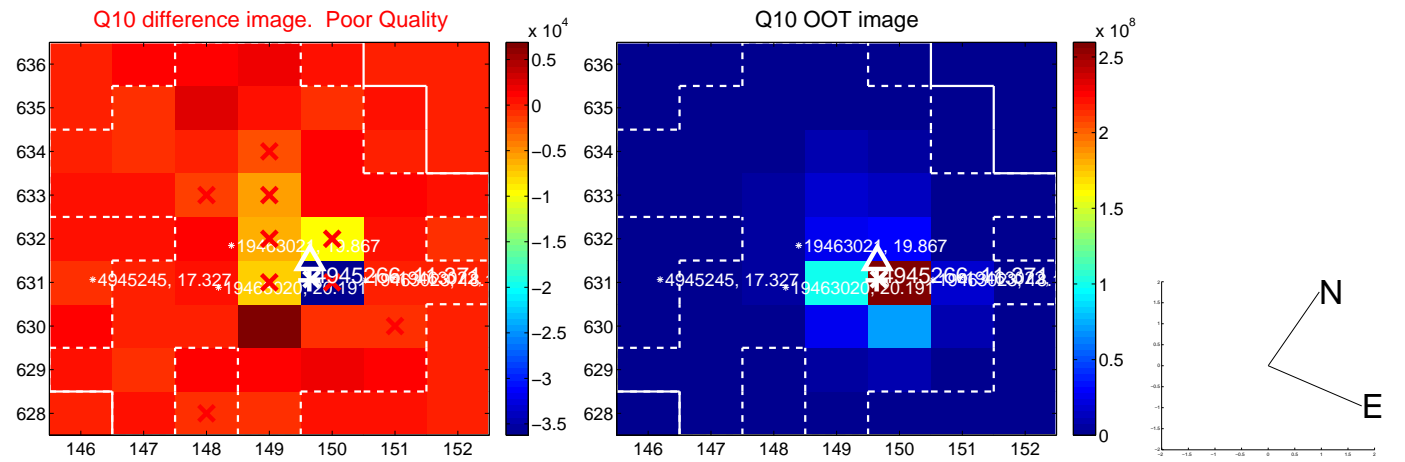
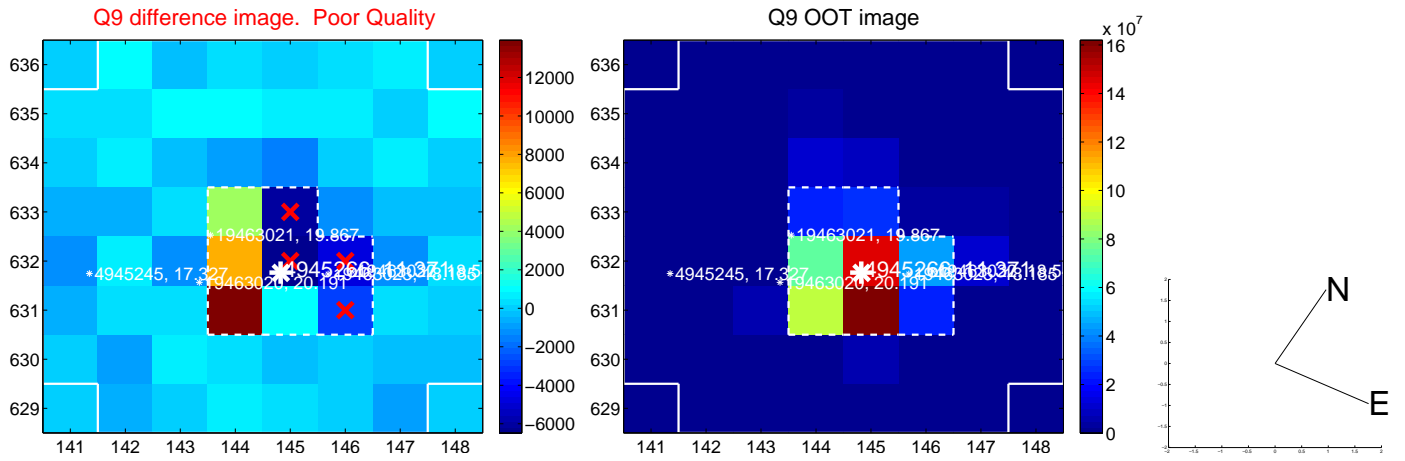
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



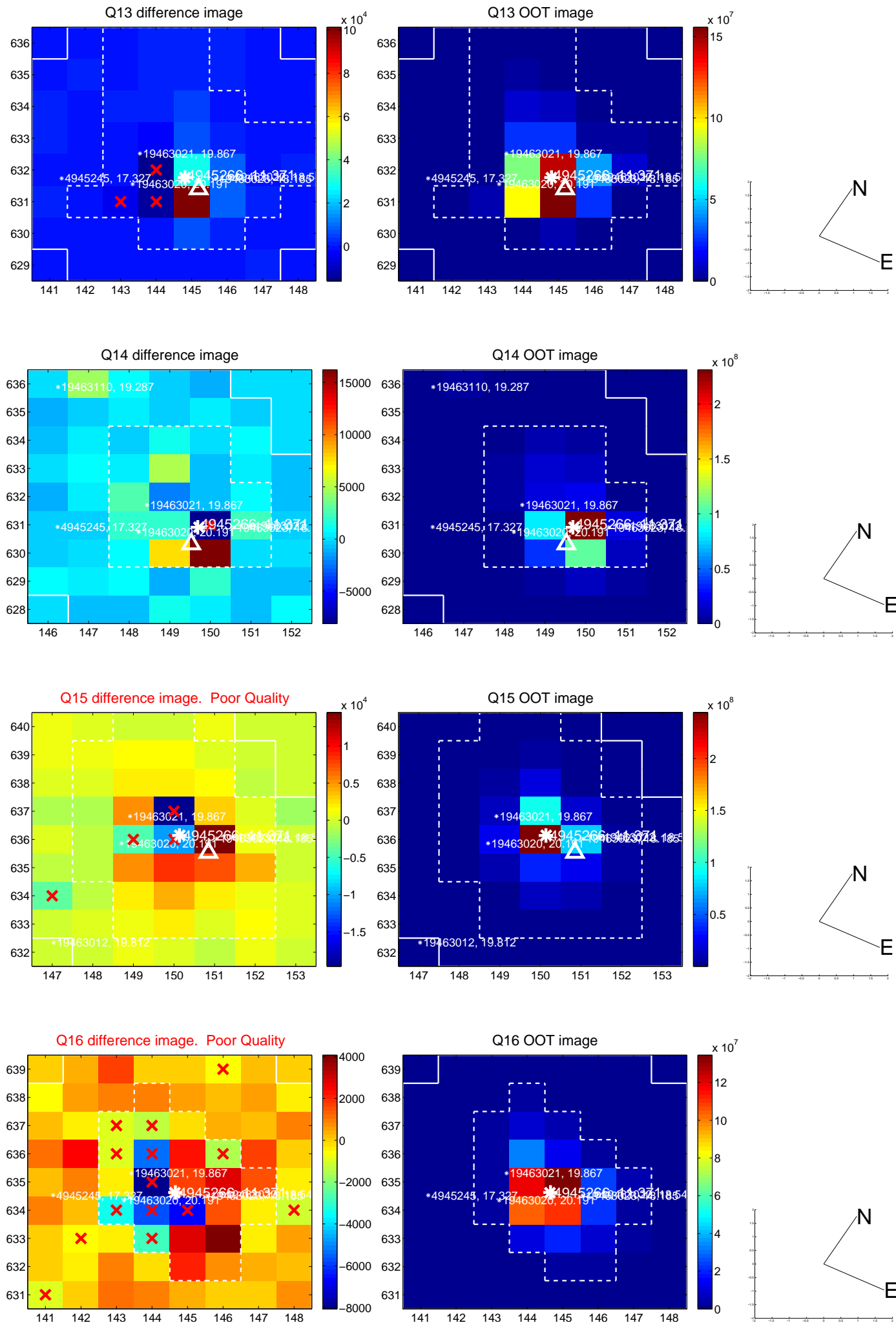
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



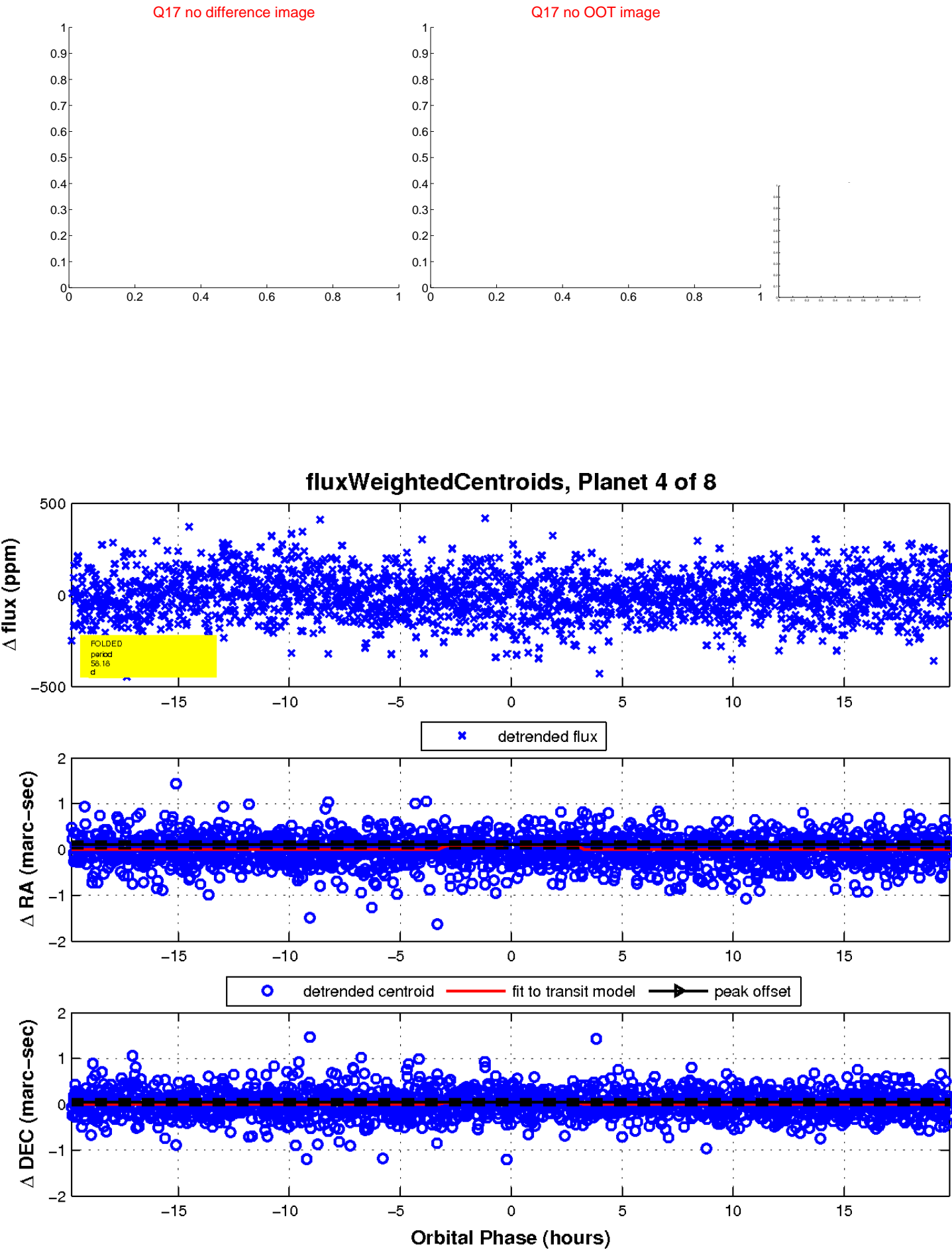
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

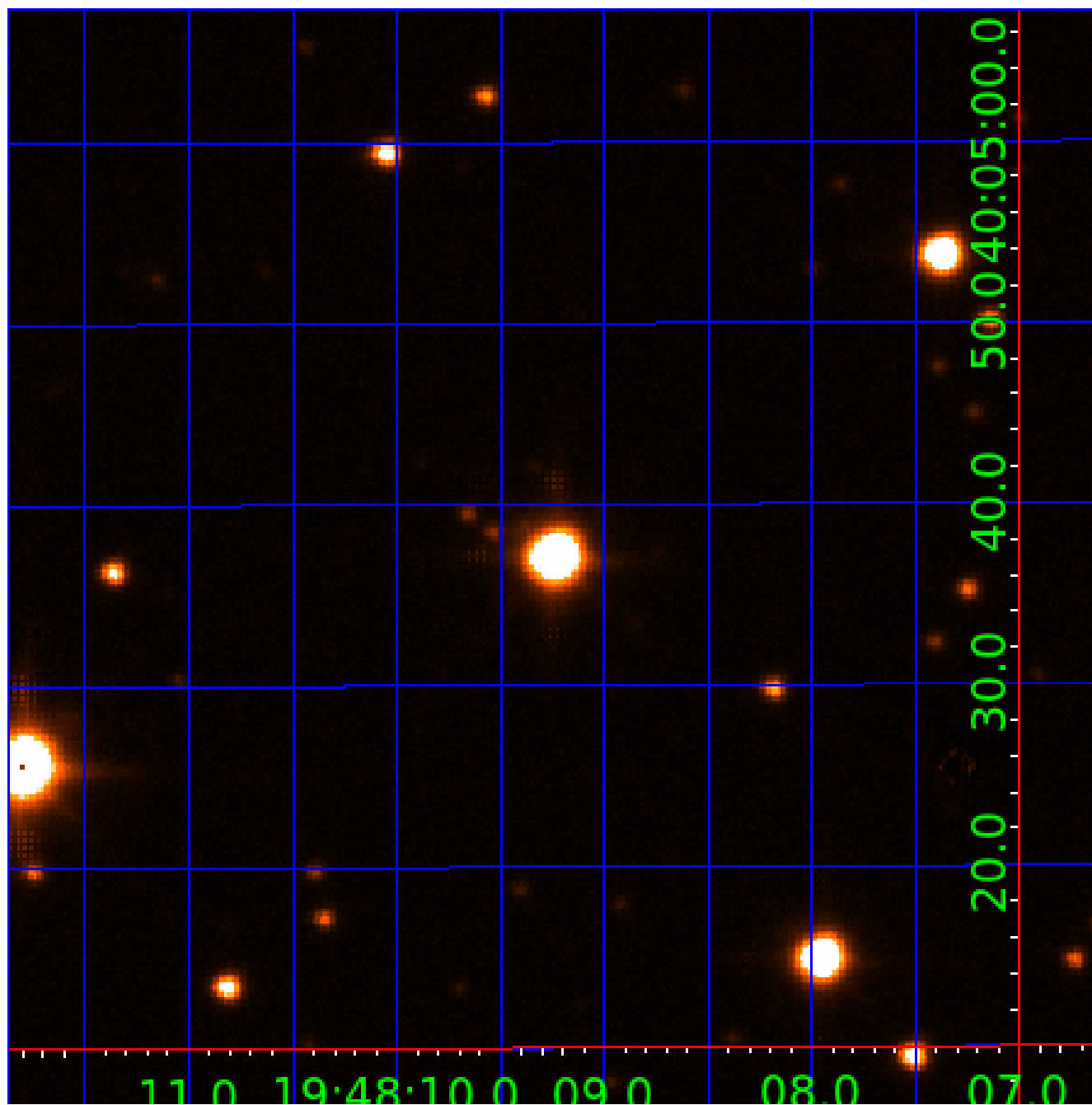


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 004945266

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})
004945266-01	OBS	No	1.197557	131.957025	3.7	7.974	8.7	2.6	1.77	6777	0.36	9611.85
004945266-02	OBS	No	197.254787	190.095347	218.2	4.735	12.6	9.4	1.77	6777	3.11	10.64
004945266-03	OBS	No	43.670555	173.893348	211.0	1.636	11.0	10.5	1.77	6777	2.97	79.48
004945266-04	OBS	No	58.180105	142.246997	118.0	6.605	9.6	8.6	1.77	6777	2.21	54.22
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004945266-07	OBS	No	150.297522	241.464117	179.6	2.319	9.8	9.3	1.77	6777	2.69	15.30
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004945266-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
004945266-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_SATURATED
004945266-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
004945266-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
004945266-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
004945266-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
004945266-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
004945266-08	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_SATURATED

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

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

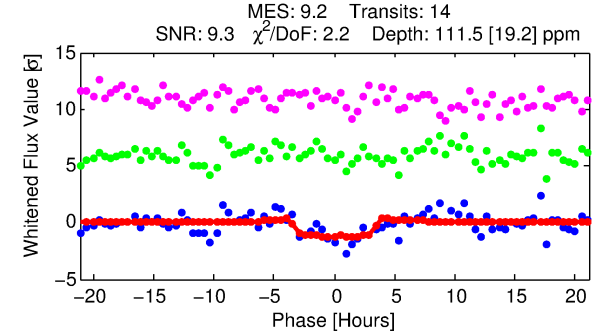
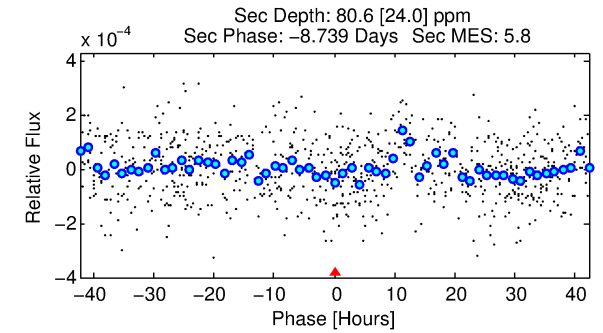
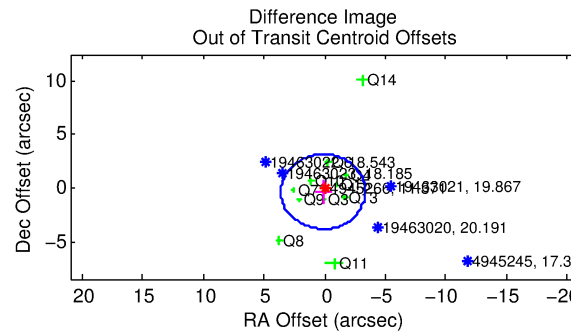
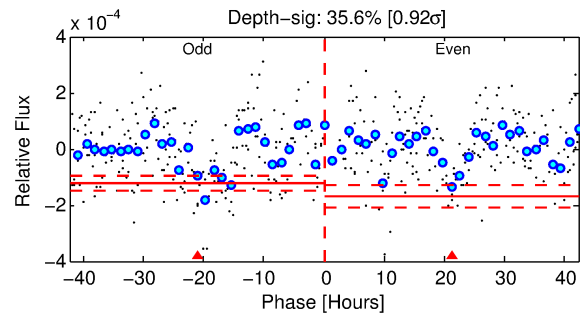
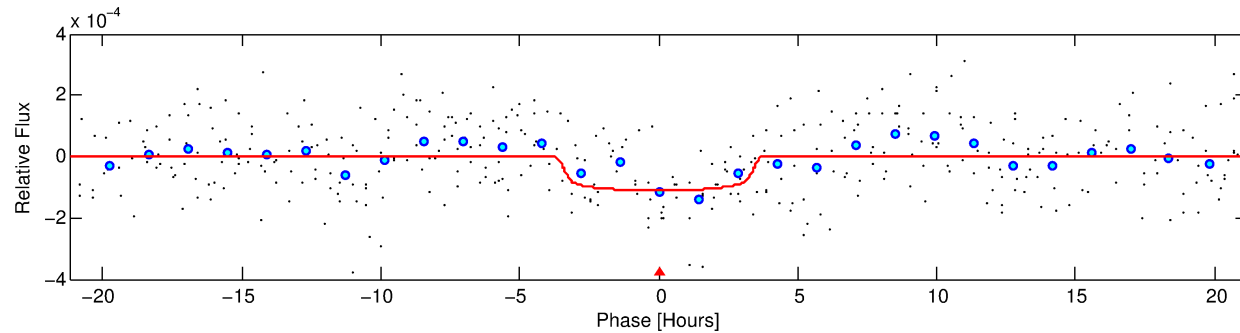
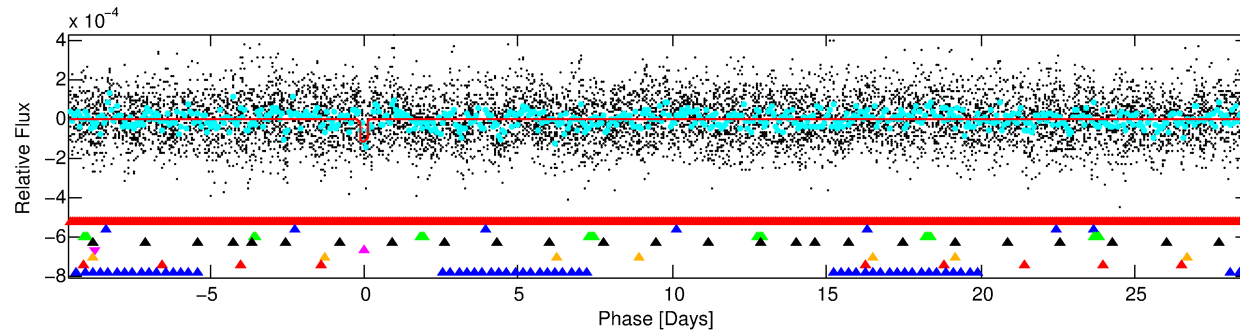
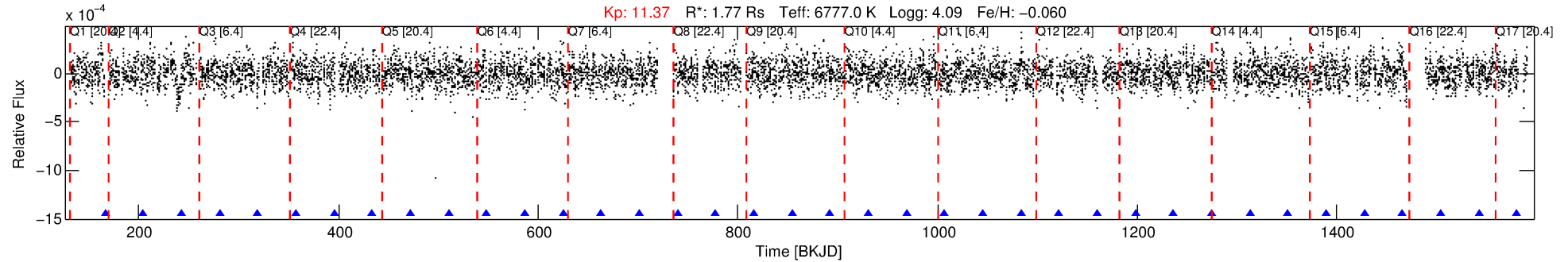
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004945266-05

No Significant Match Found

DV One-Page Summary

KIC: 4945266 Candidate: 5 of 8 Period: 38.216 d



DV Fit Results:

Period = 38.21631 [0.00067] d
Epoch = 166.4457 [0.0160] BKJD
Rp/R* = 0.0107 [0.0069]
a/R* = 25.43 [93.88]
b = 0.80 [1.66]
Seff = 94.96 [23.98]
Teq = 796 [50] K
Rp = 2.06 [1.38] Re
a = 0.2493 [0.0422] AU
Ag = 648.71 [868.69] [0.75 σ]
Teffp = 6211 [2045] K [2.65 σ]

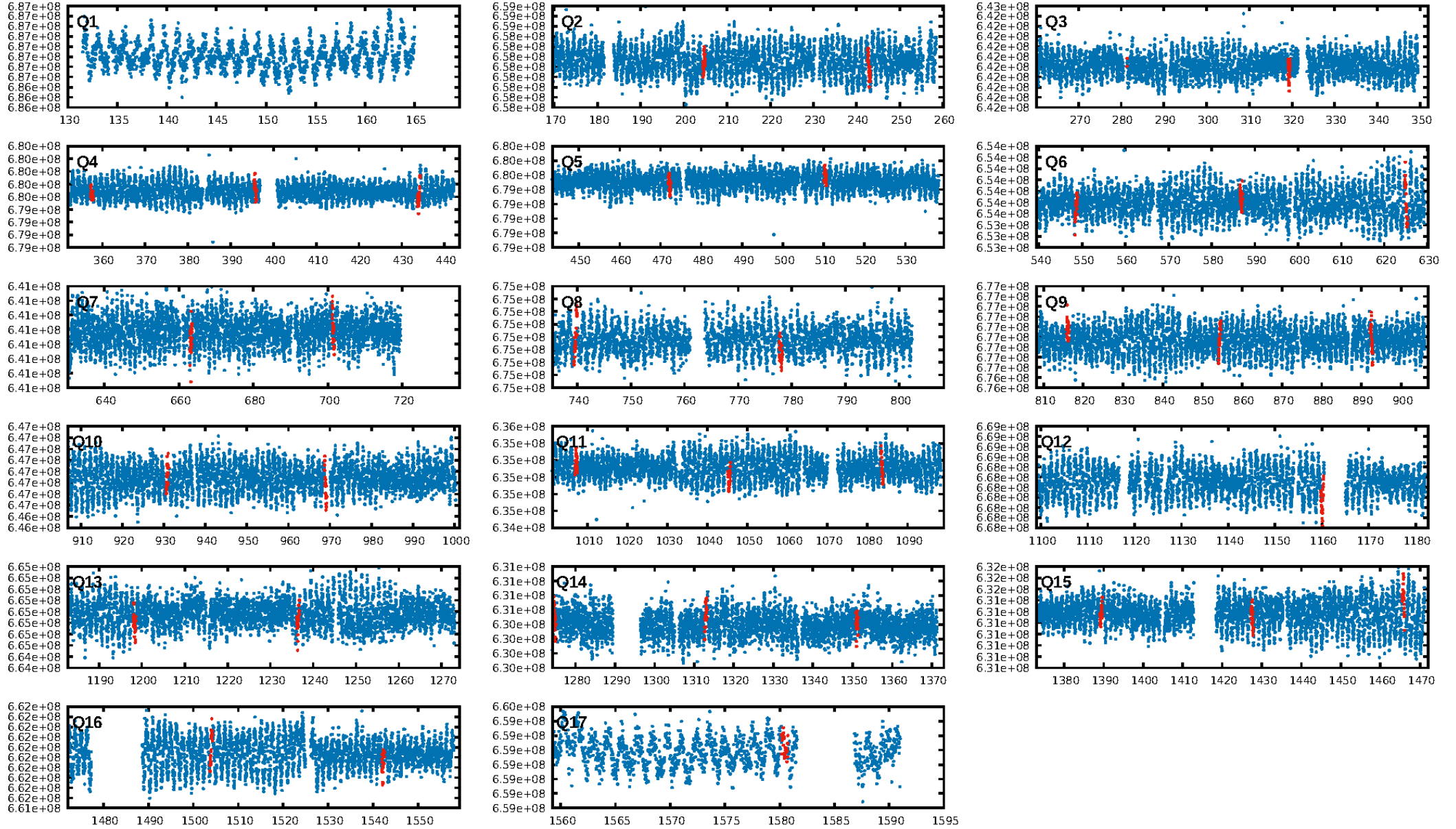
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [42.21 σ]
LongPeriod-sig: 100.0% [18.04 σ]
ModelChiSquare2-sig: 2.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [13/13]
GhostDiagnostic-chr: -0.9755
Centroid-sig: 19.8%
Centroid-so: 0.441 arcsec [1.11 σ]
OotOffset-rm: 0.369 arcsec [0.32 σ]
KicOffset-rm: 0.382 arcsec [0.30 σ]
OotOffset-st: 3/4/2/2 [11]
KicOffset-st: 3/4/2/2 [11]
DiffImageQuality-fgm: 0.36 [4/11]
DiffImageOverlap-fno: 0.00 [0/15]

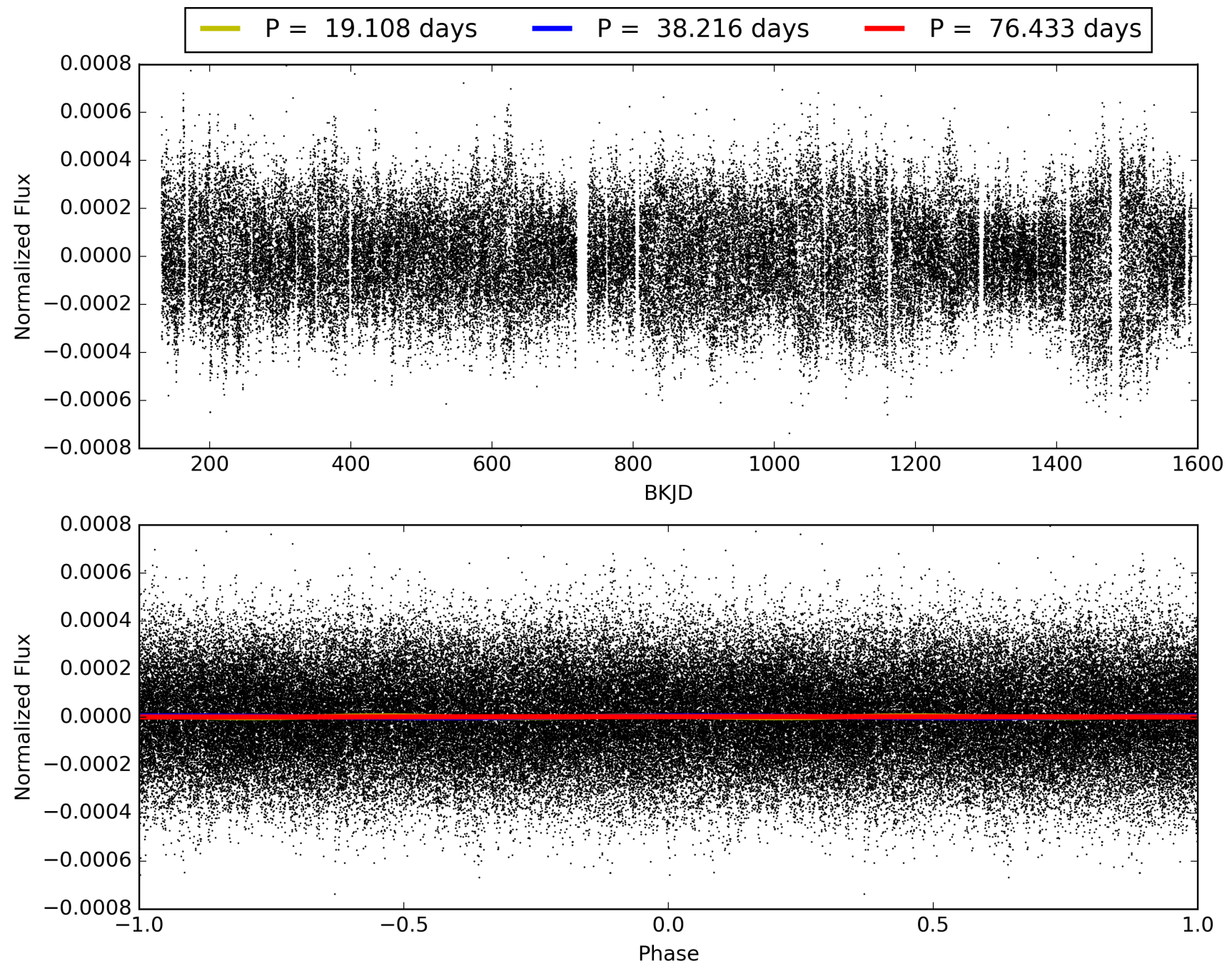
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:30:03 Z

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

TCE 004945266-05, PDC Light Curves

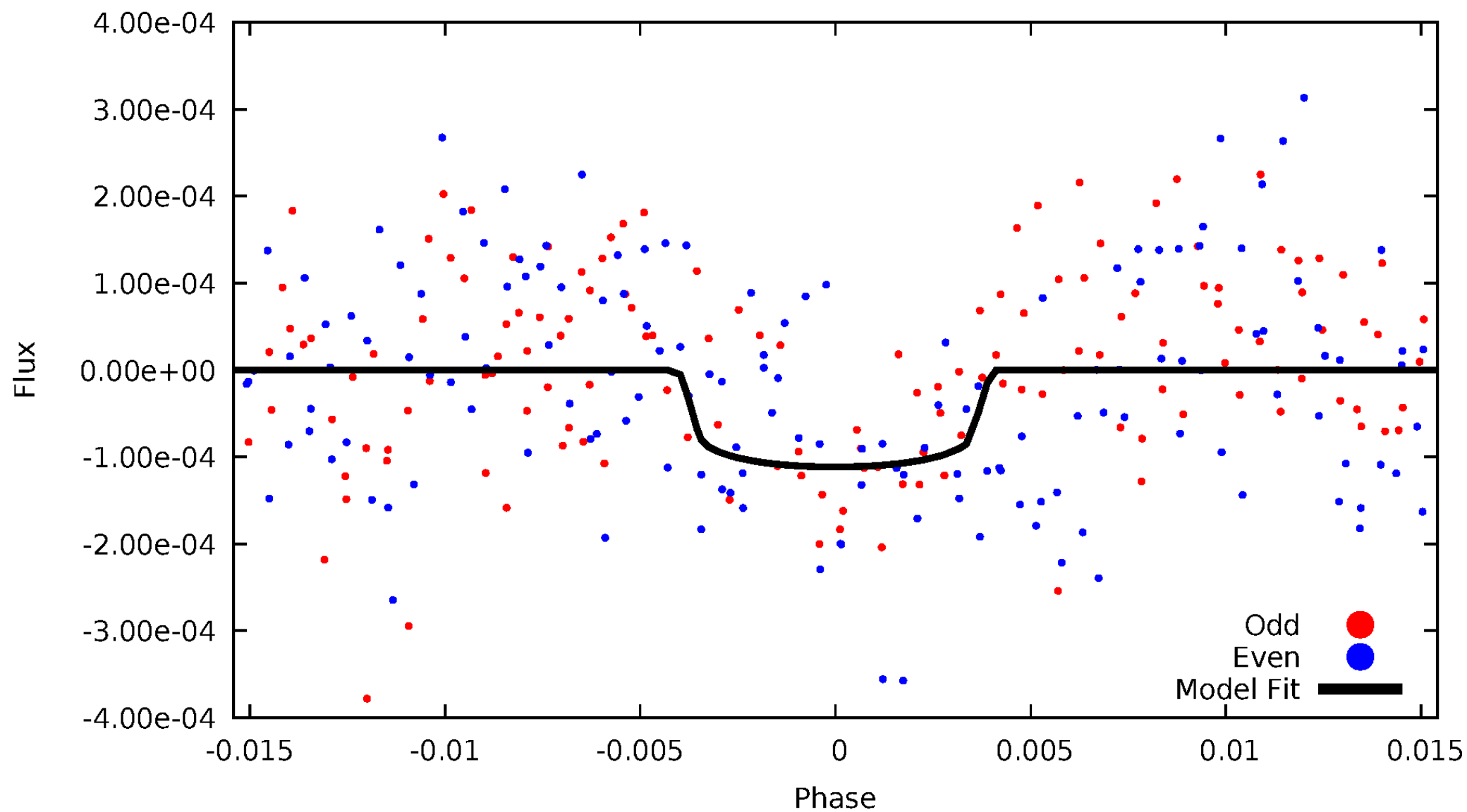


TCE 004945266-05



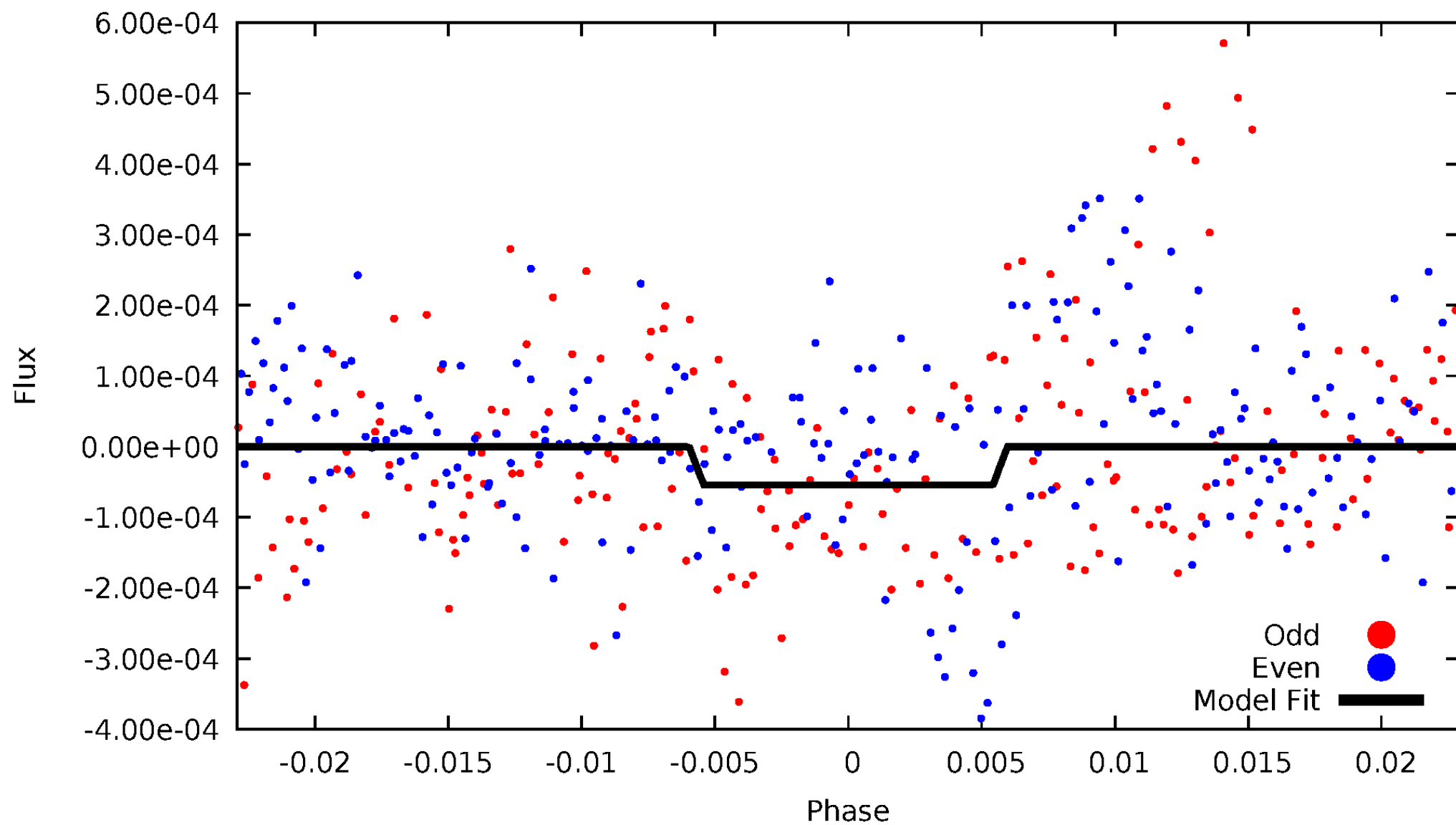
DV Odd/Even

TCE 004945266-05



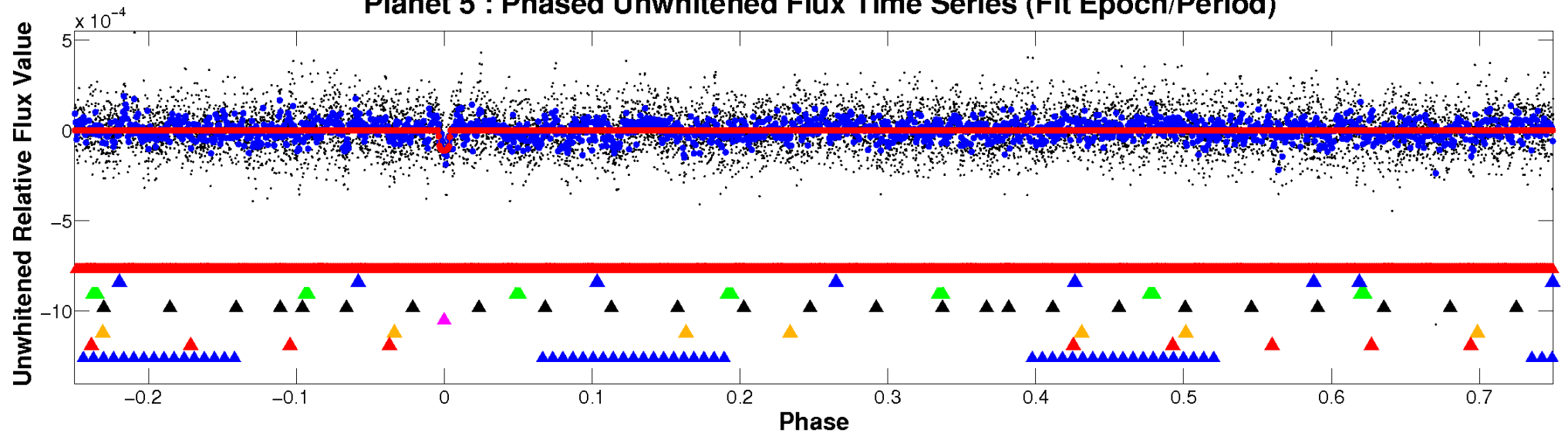
ALT Odd/Even

TCE 004945266-05

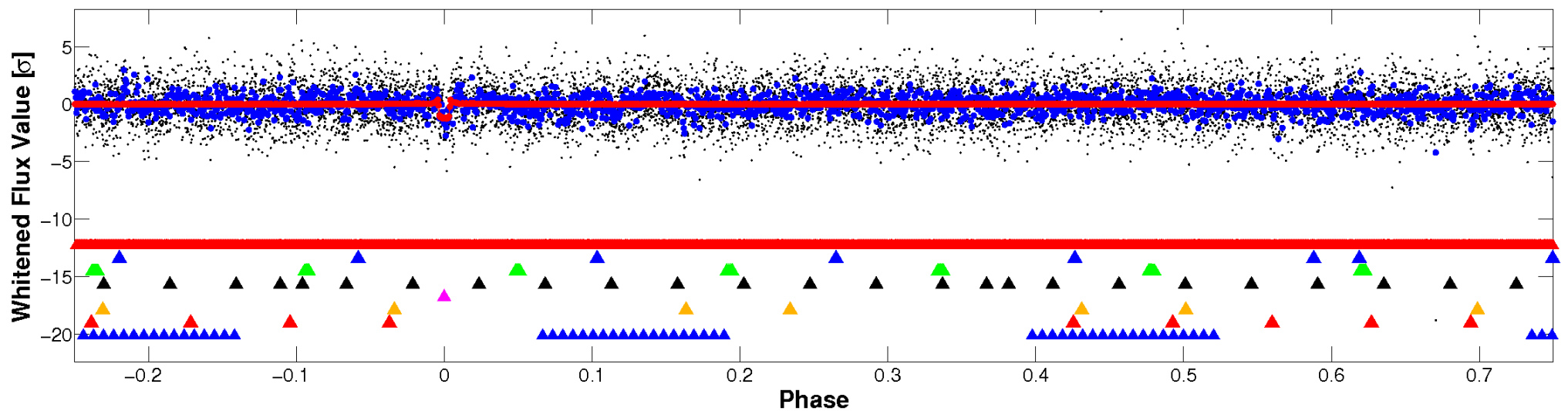


Non-Whitened Vs. Whitened Light Curve

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

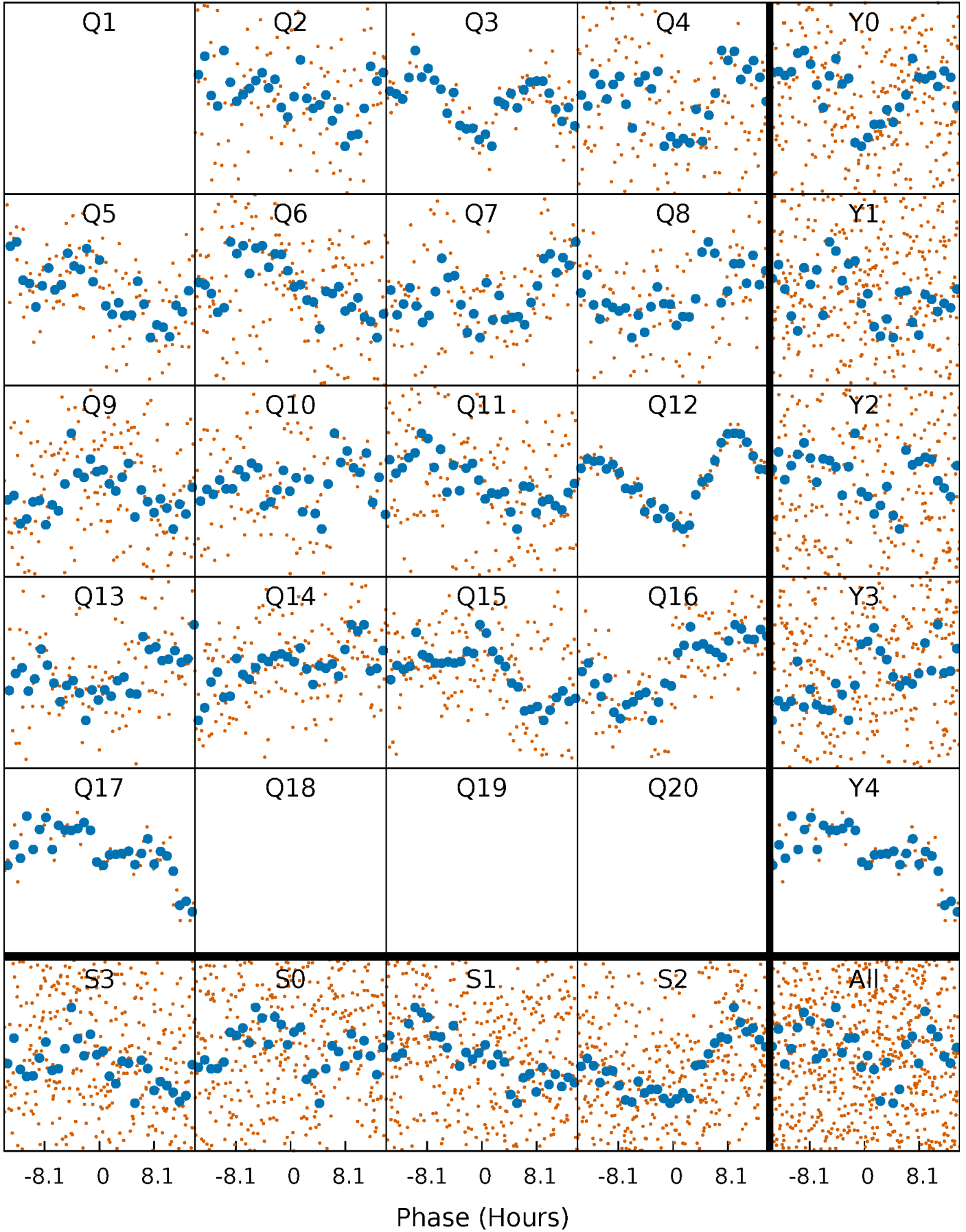


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



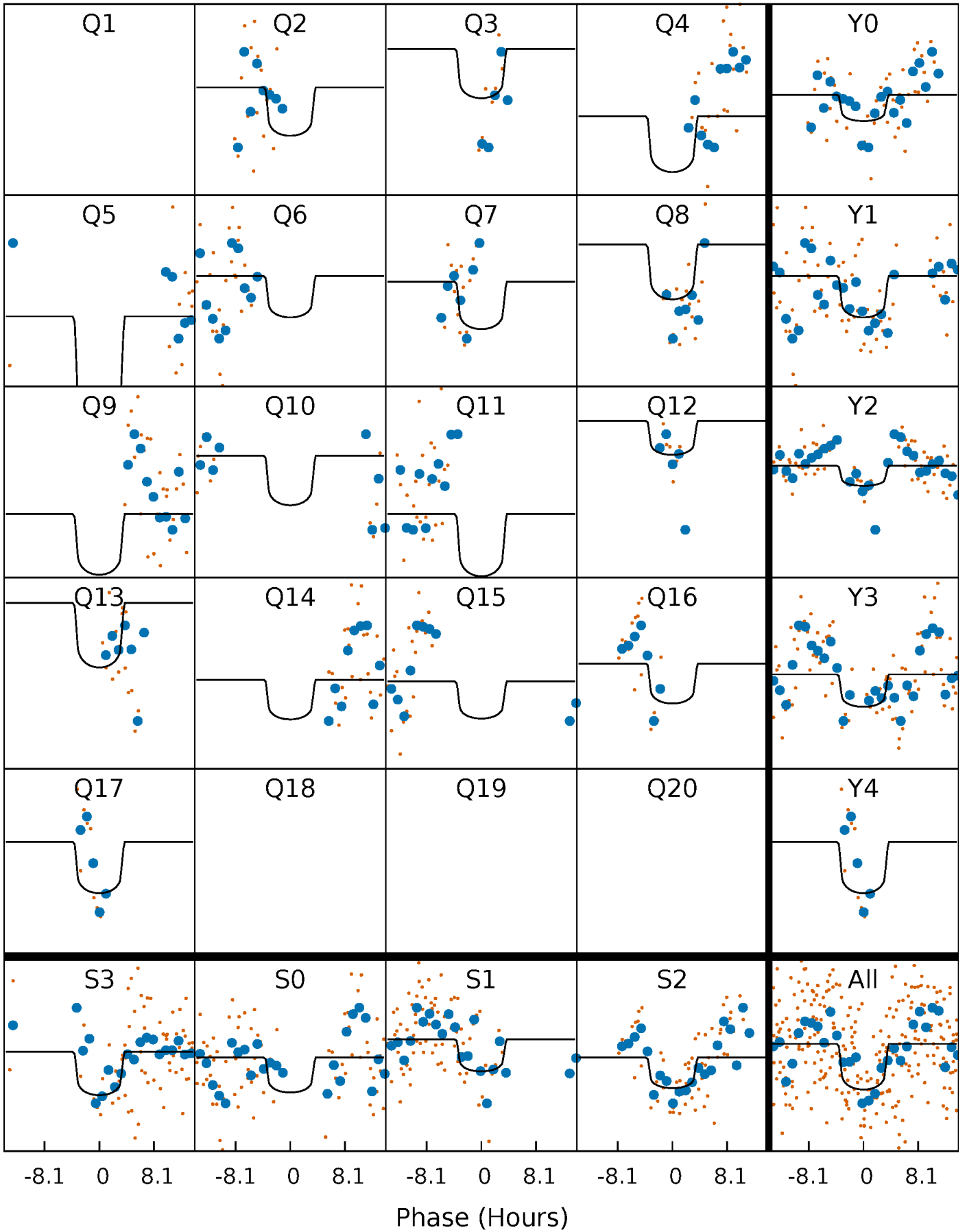
PDC Quarter-Phased Transit Curves

TCE 004945266-05 $P = 38.216314$ Days $T_0 = 166.445720$ (BKJD)



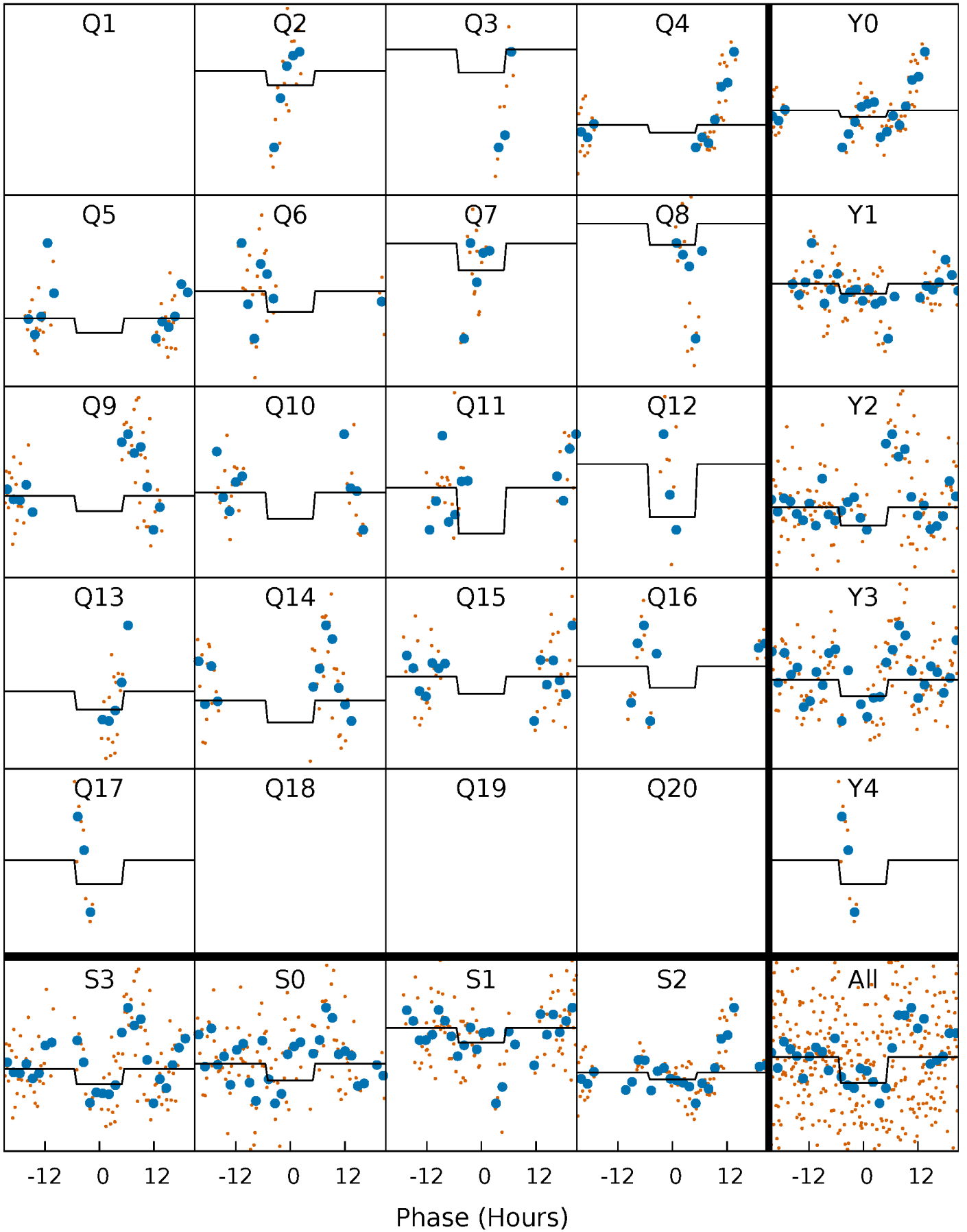
DV Quarter-Phased Transit Curves

TCE 004945266-05 P= 38.216314 Days $T_0=166.445720$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

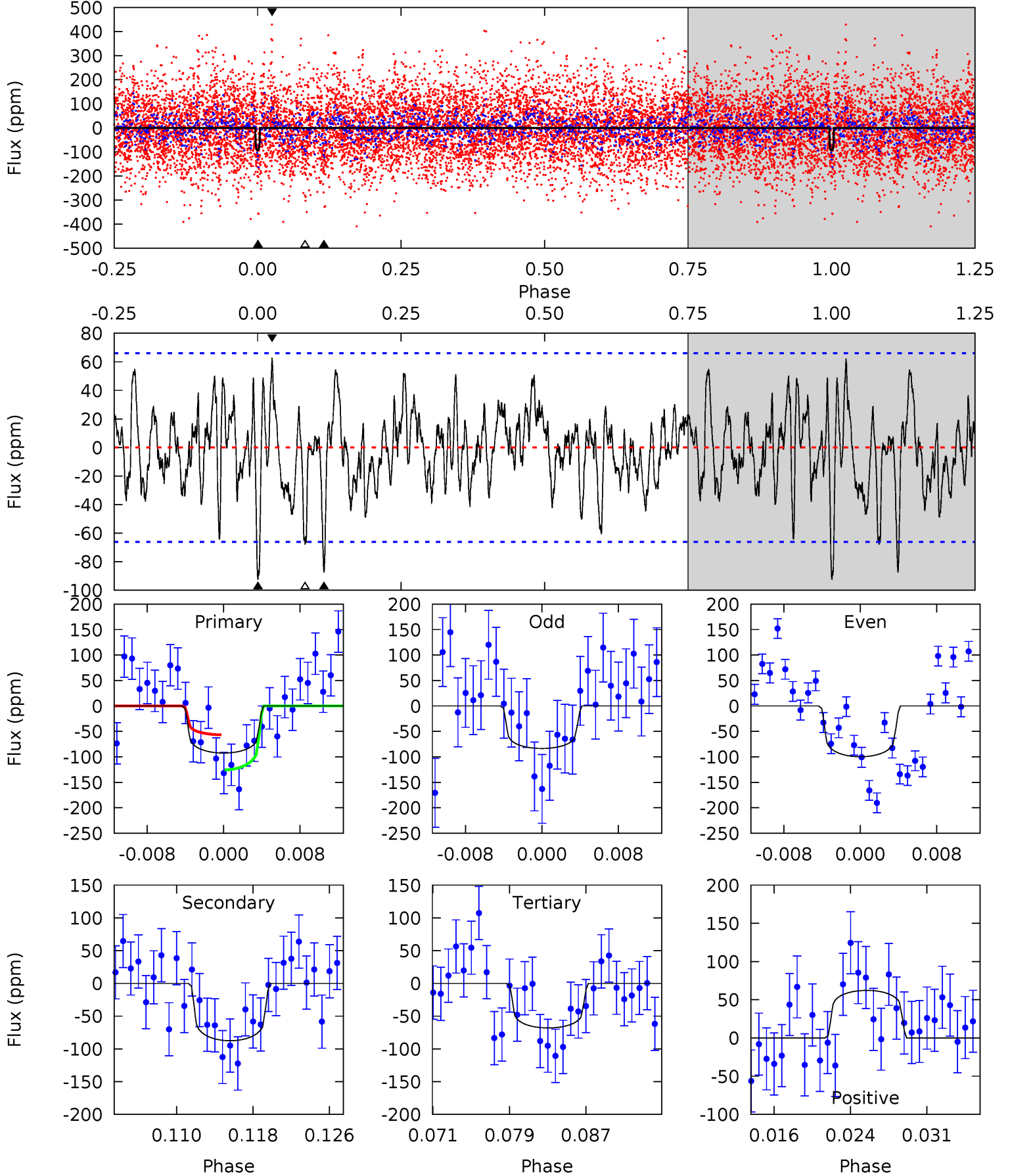
TCE 004945266-05 $P = 38.223447$ Days $T_0 = 166.273561$ (BKJD)



DV Model-Shift Uniqueness Test

004945266-05, P = 38.216314 Days, E = 128.229406 Days

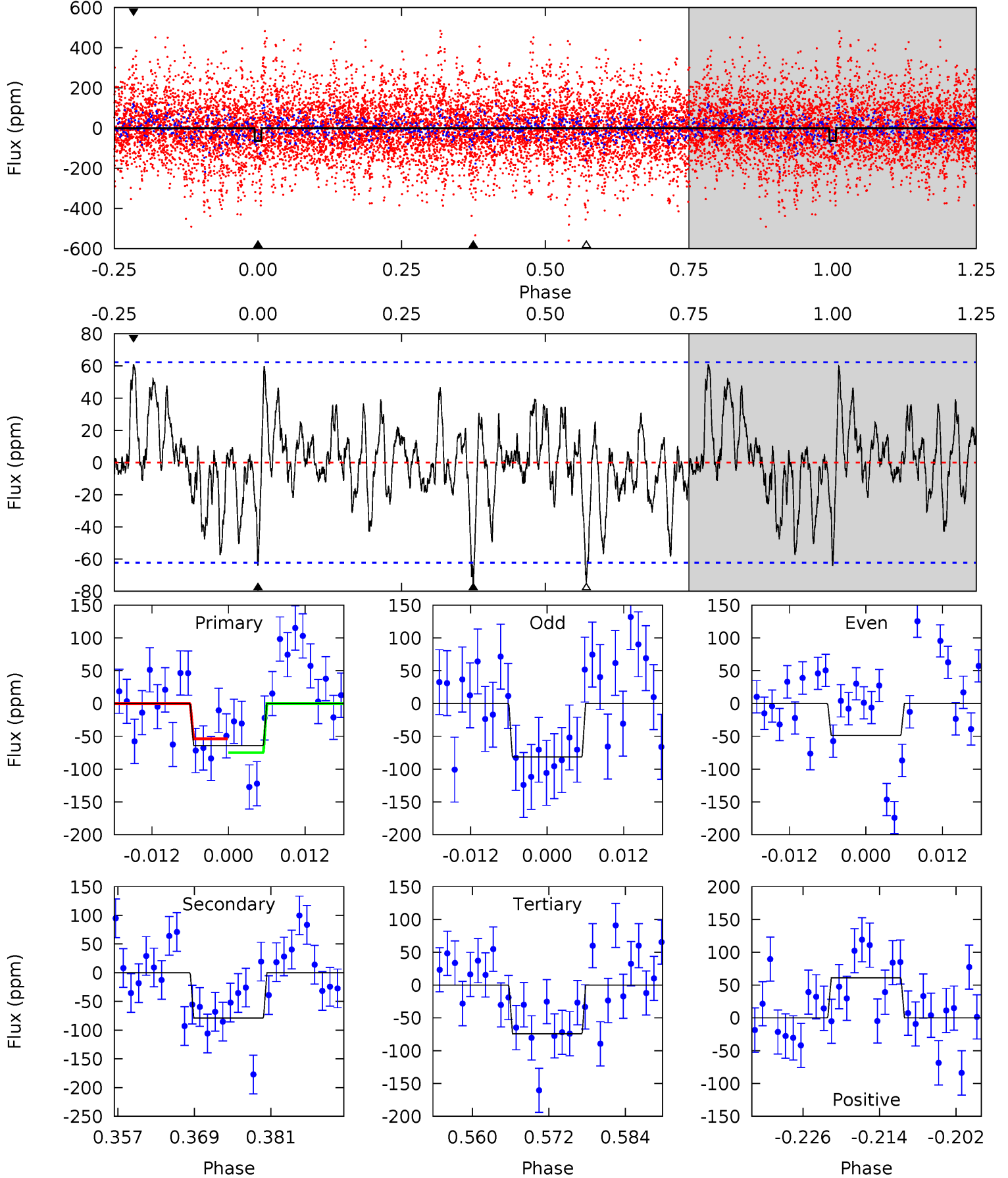
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.10	6.72	5.22	4.78	5.07	2.66	1.72	1.88	2.32	1.50	1.94	0.62	0.86	0.40	2.65



Alt Model-Shift Uniqueness Test

004945266-05, P = 38.223447 Days, E = 128.050114 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.15	6.33	5.96	4.89	4.99	2.51	1.69	-0.81	0.25	0.37	1.43	1.31	2.34	0.44	0.85



Stellar Parameters For KIC 004945266

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6777^{+71}_{-91}	$4.094^{+0.135}_{-0.135}$	$-0.060^{+0.150}_{-0.150}$	$1.767^{+0.355}_{-0.323}$	$1.422^{+0.116}_{-0.129}$	$0.363^{+0.234}_{-0.142}$
	+1%/-1%	+3%/-3%	+250%/-250%	+20%/-18%	+8%/-9%	+64%/-39%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 004945266-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-88 ± 13	$2.22^{+1.22}_{-1.18}$	1112^{+59}_{-54}	6094^{+3589}_{-1158}	615^{+2227}_{-375}
Alt.	-79 ± 12	$1.71^{+1.23}_{-1.03}$	1113^{+55}_{-52}	6797^{+6040}_{-1590}	907^{+5044}_{-601}

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 $A_{obs} \gg 1.0$

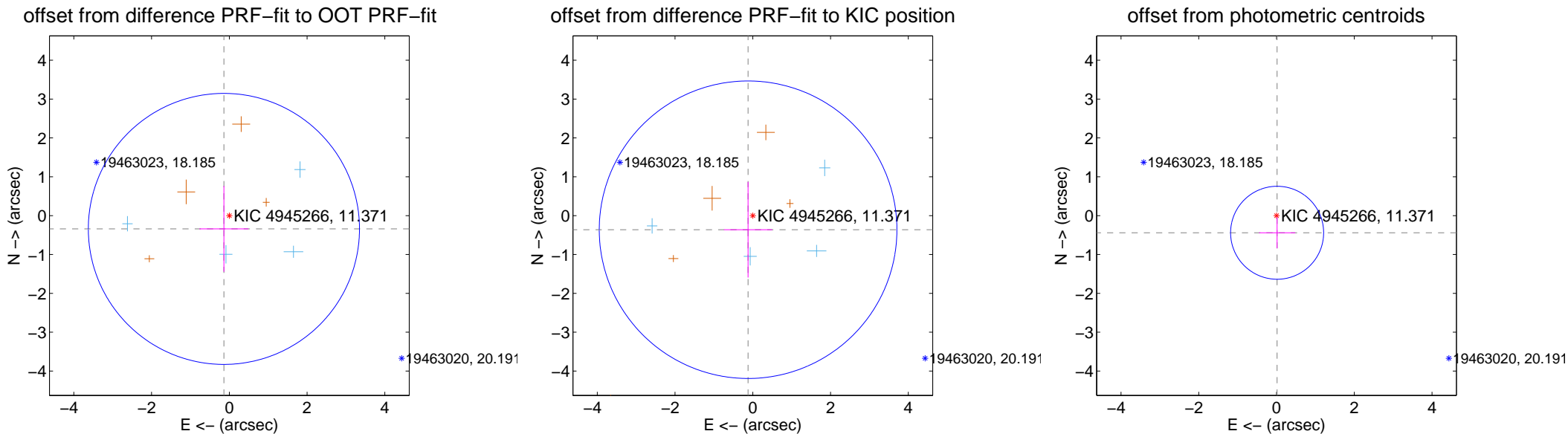
DV Centroid Data

Supplemental centroid analysis for 004945266-05. **Kepler magnitude: 11.37.** Transit SNR 9.34

There are 4 quarters with good PRF difference image offsets

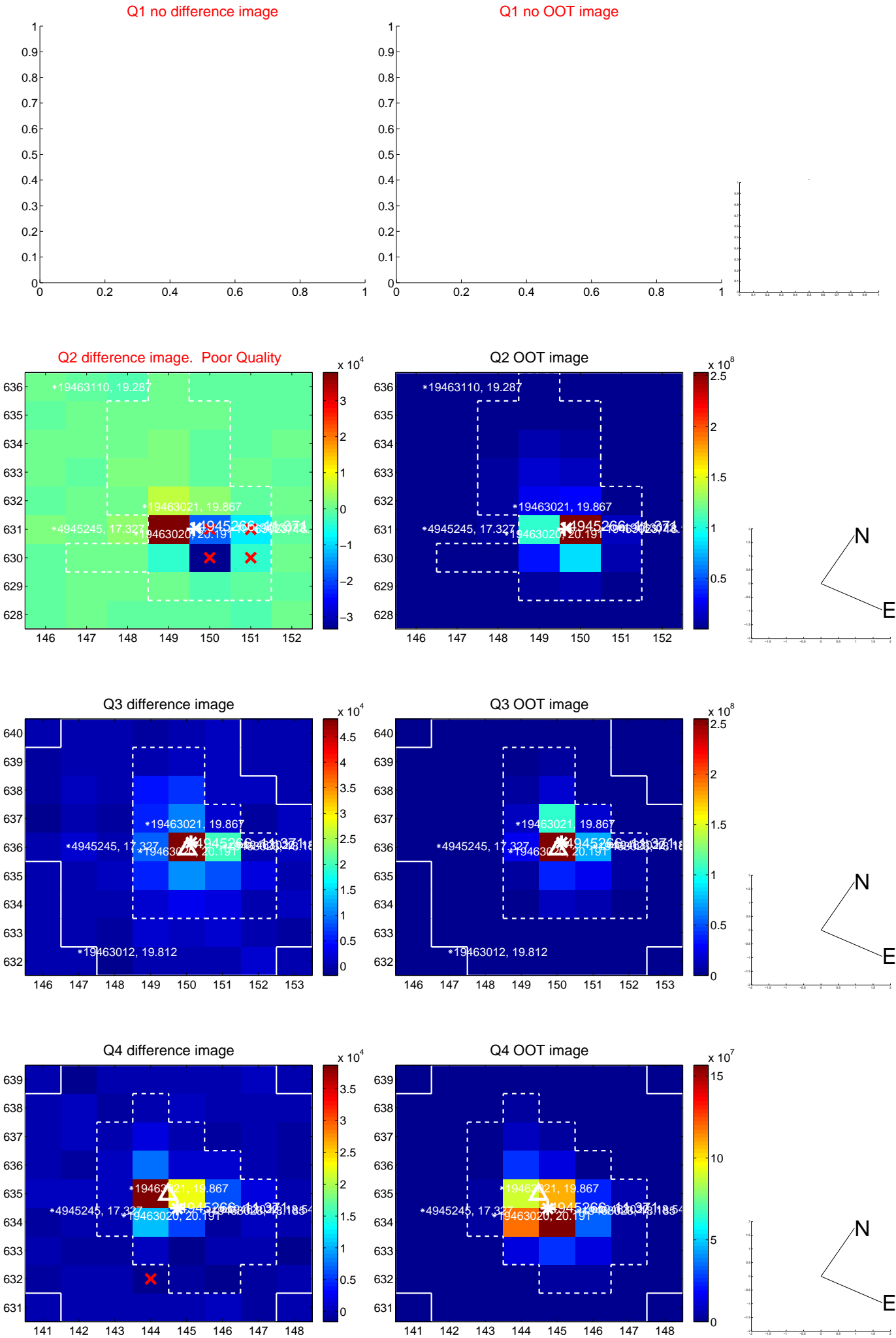
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.369 ± 1.163	0.32	0.139 ± 0.631	-0.341 ± 1.104
PRF-fit source offset from KIC position	0.382 ± 1.276	0.30	0.121 ± 0.620	-0.363 ± 1.231
photometric centroid source offset	0.44 ± 0.40	1.11	-0.02 ± 0.47	-0.44 ± 0.40

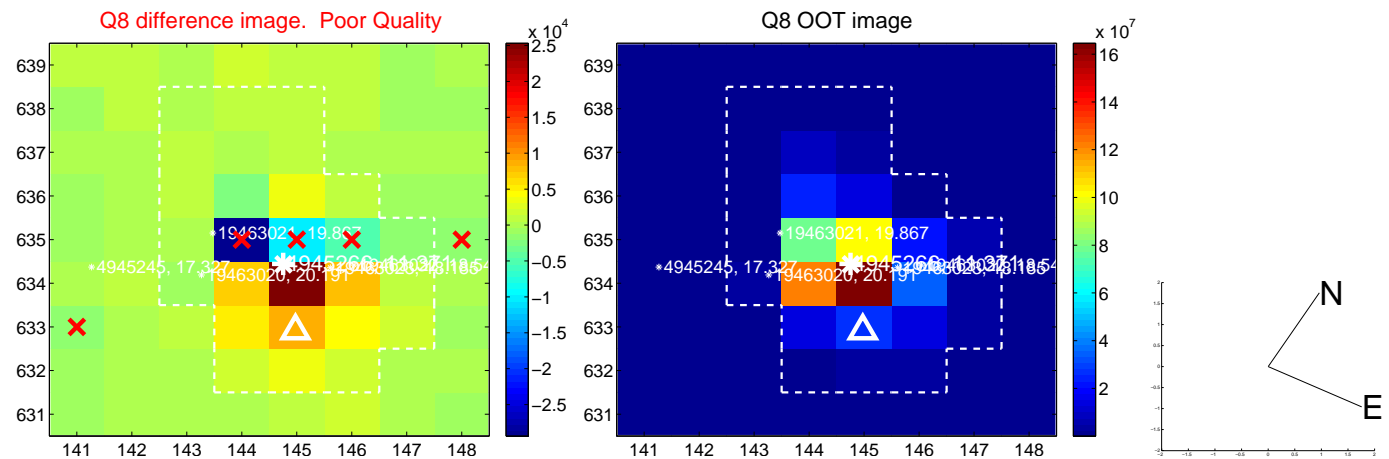
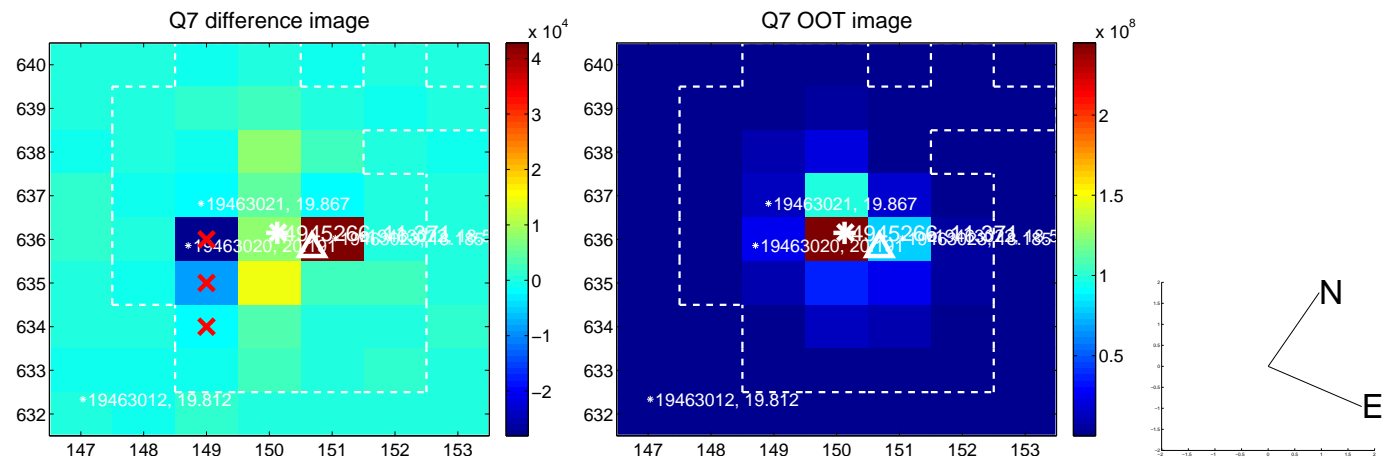
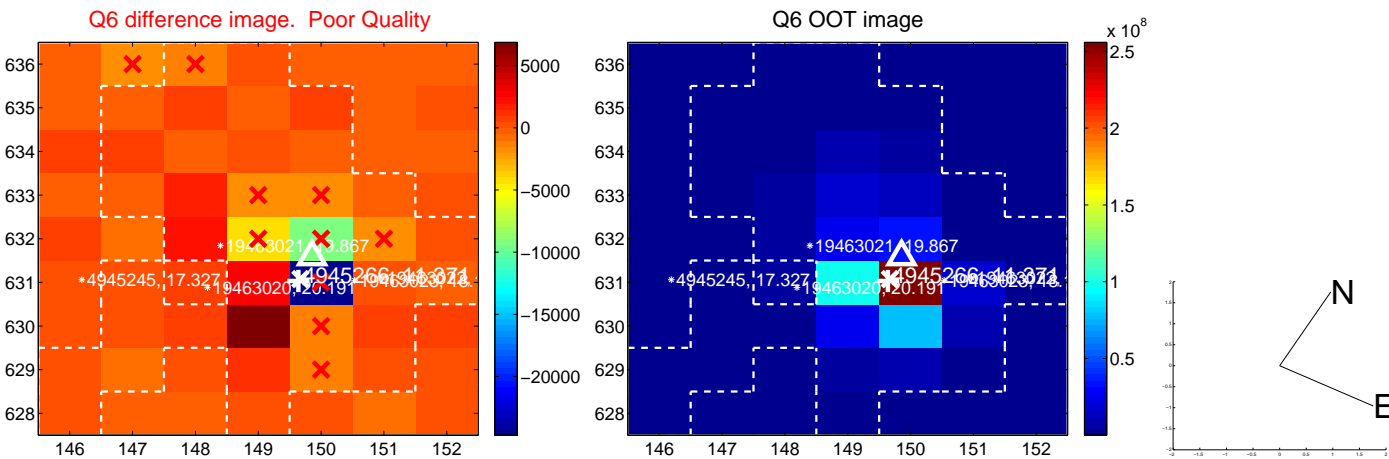
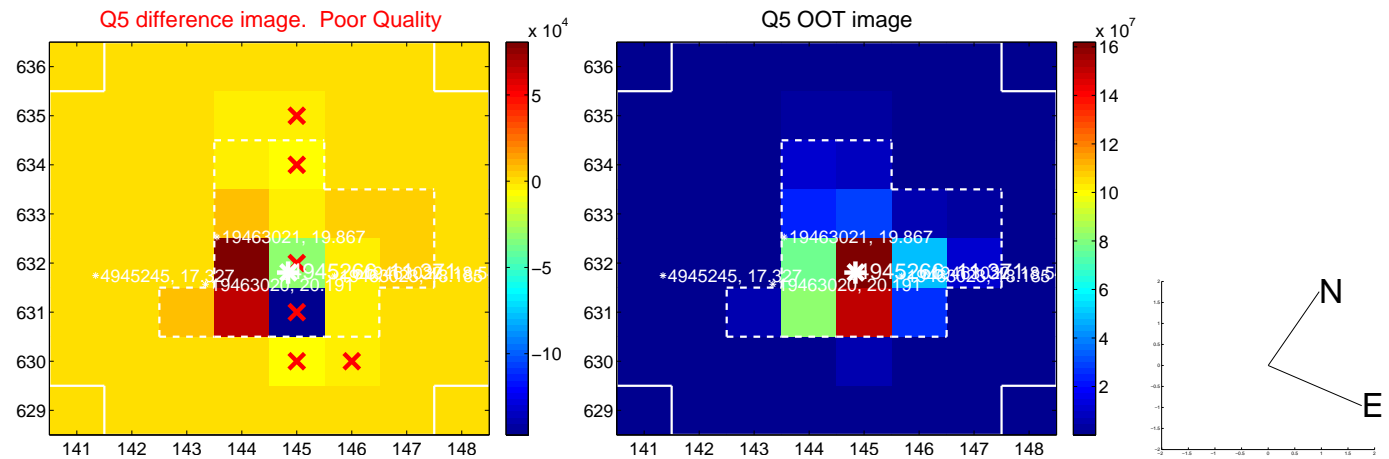


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

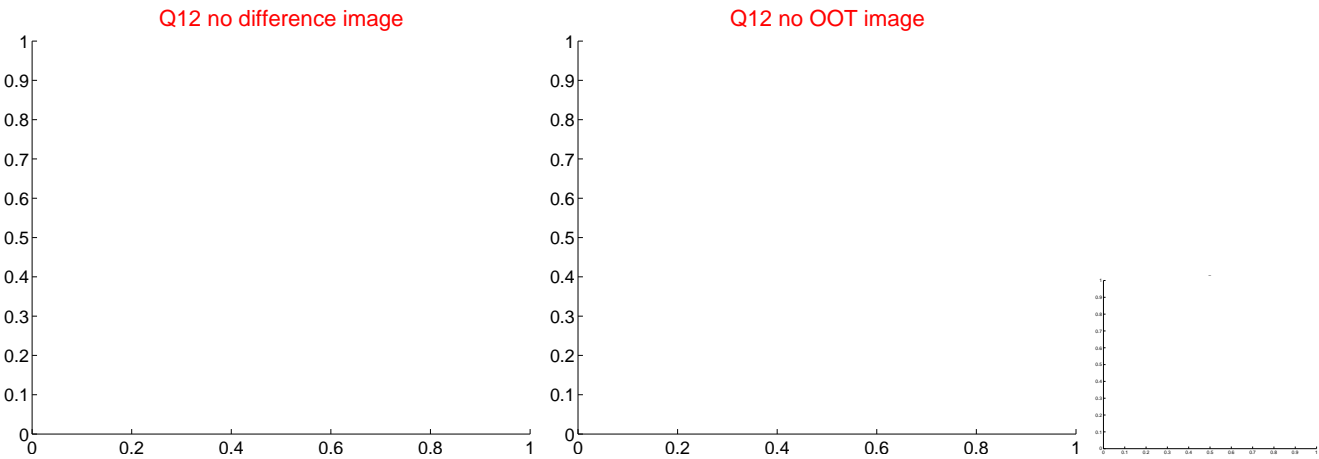
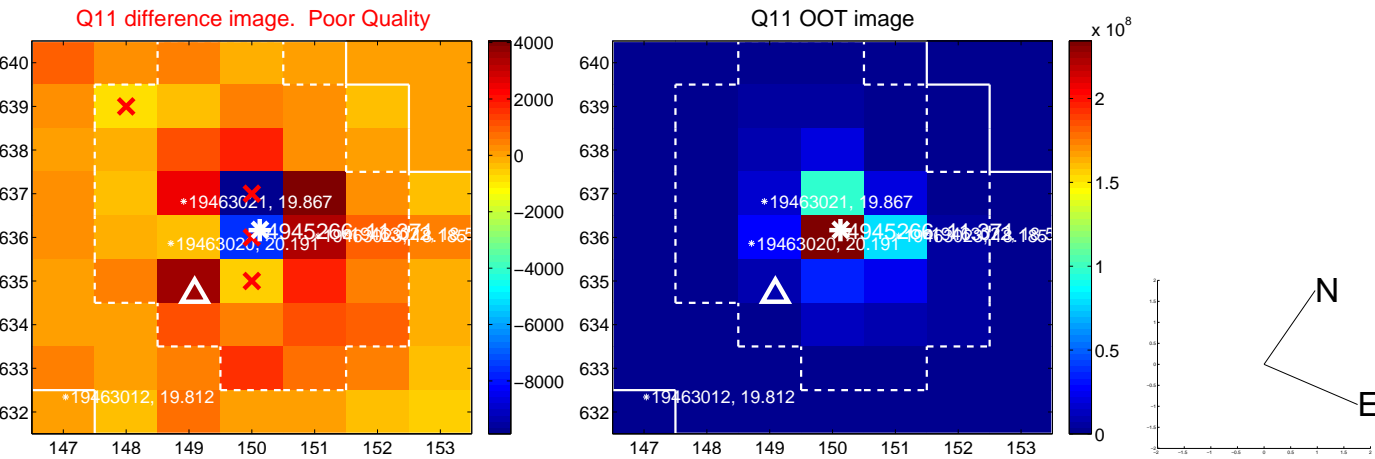
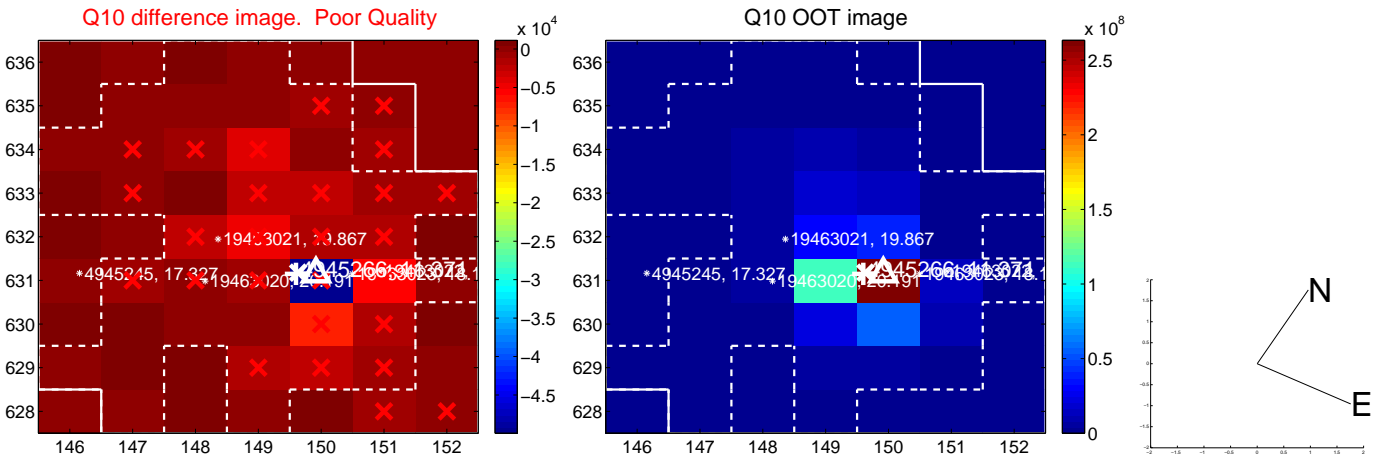
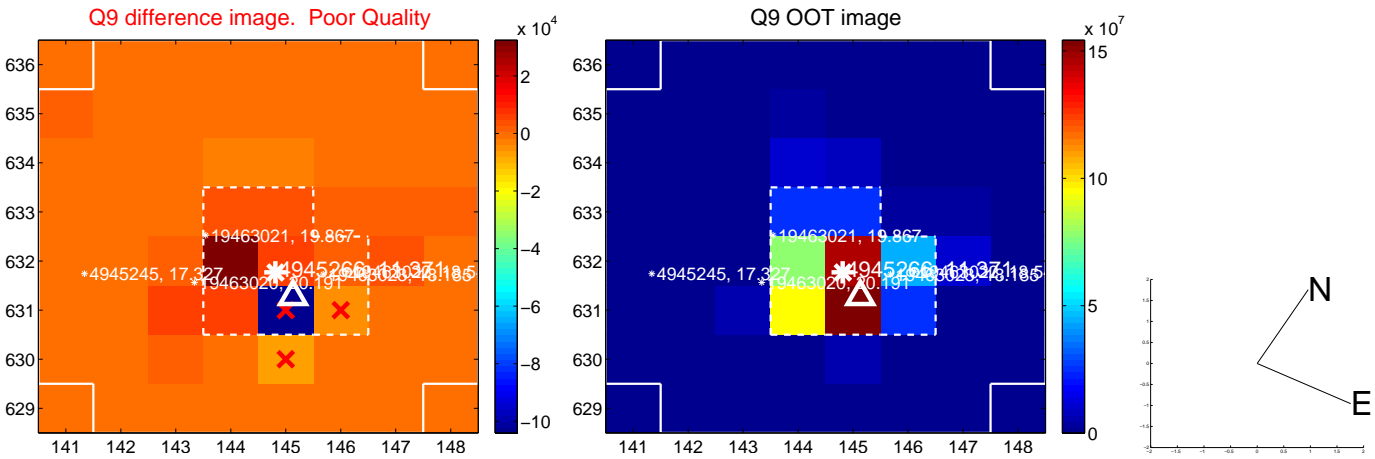
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



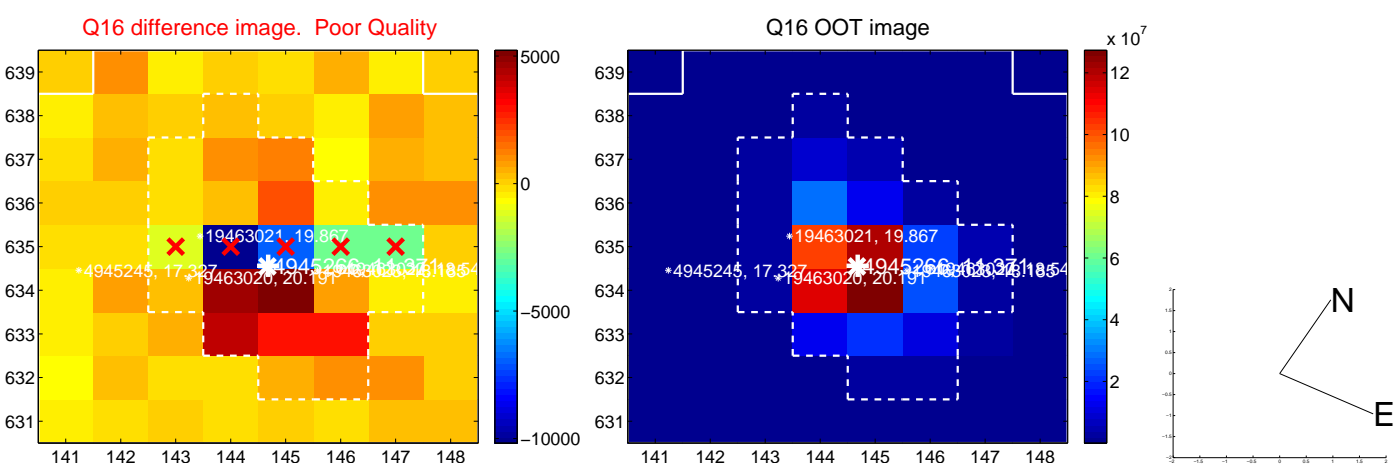
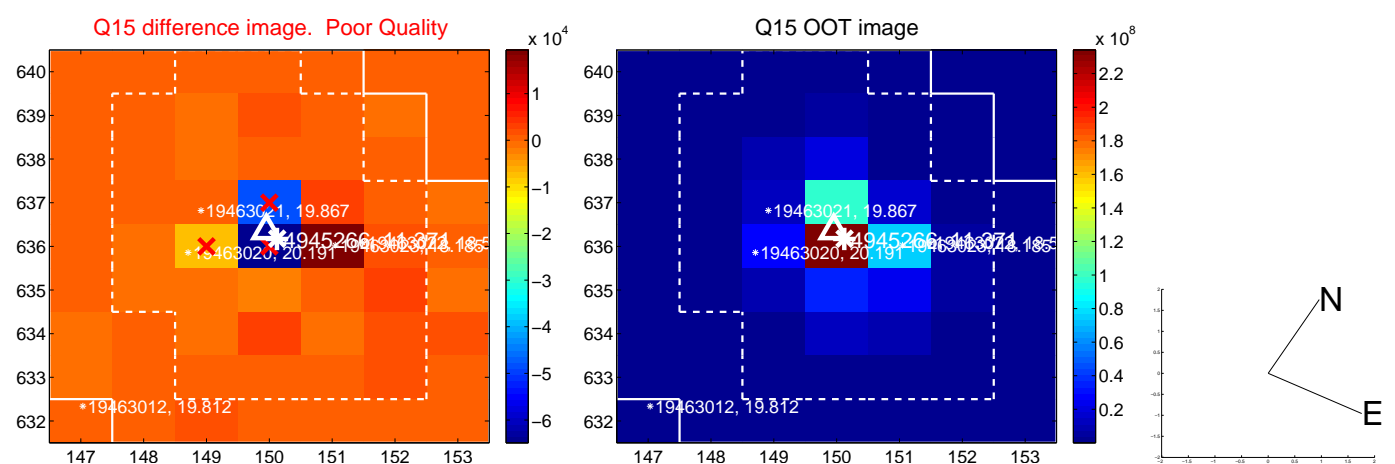
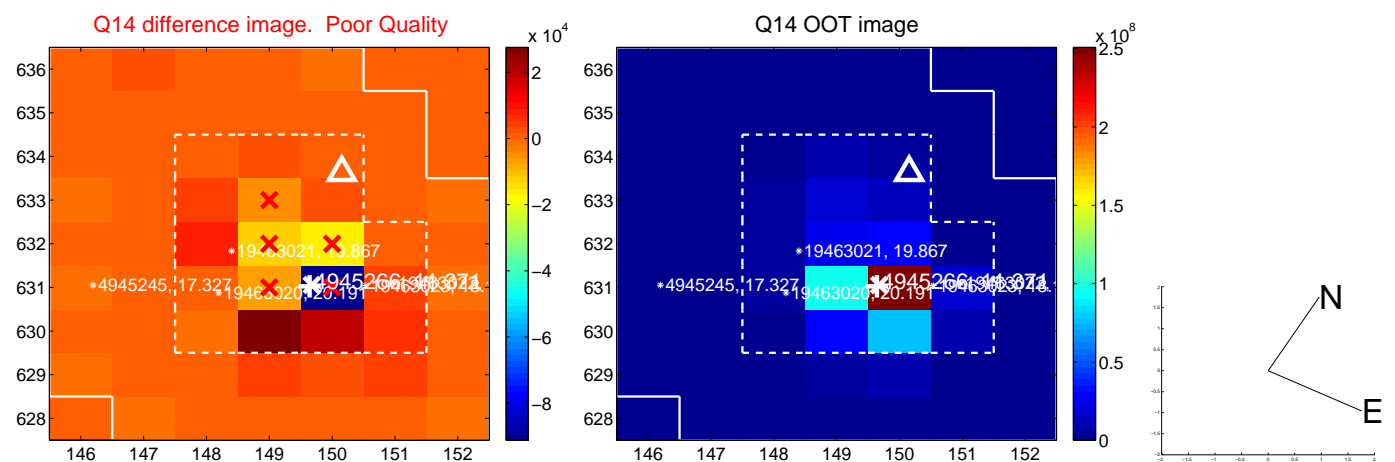
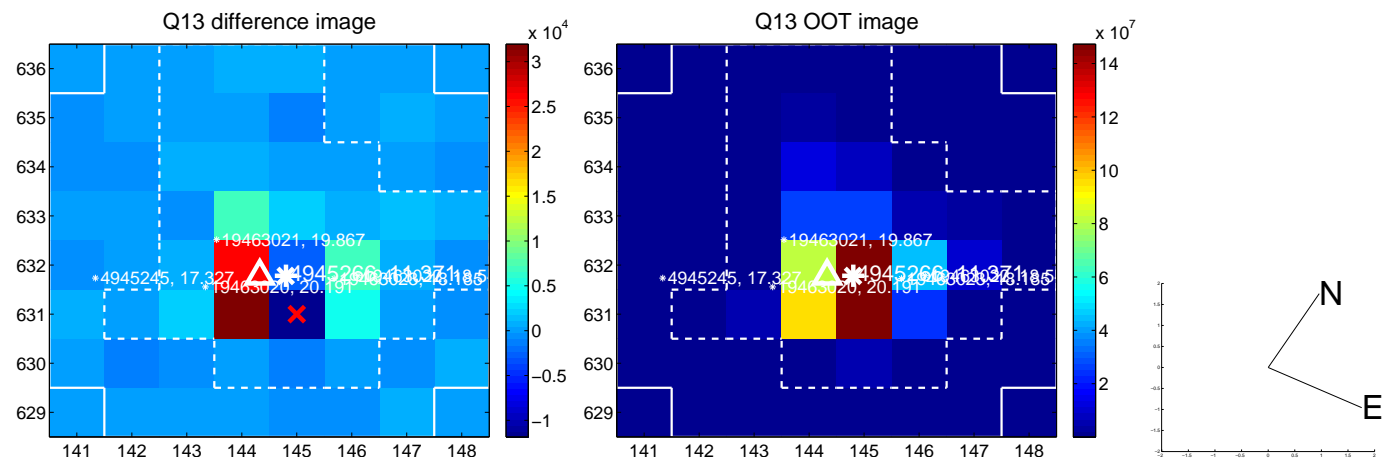
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



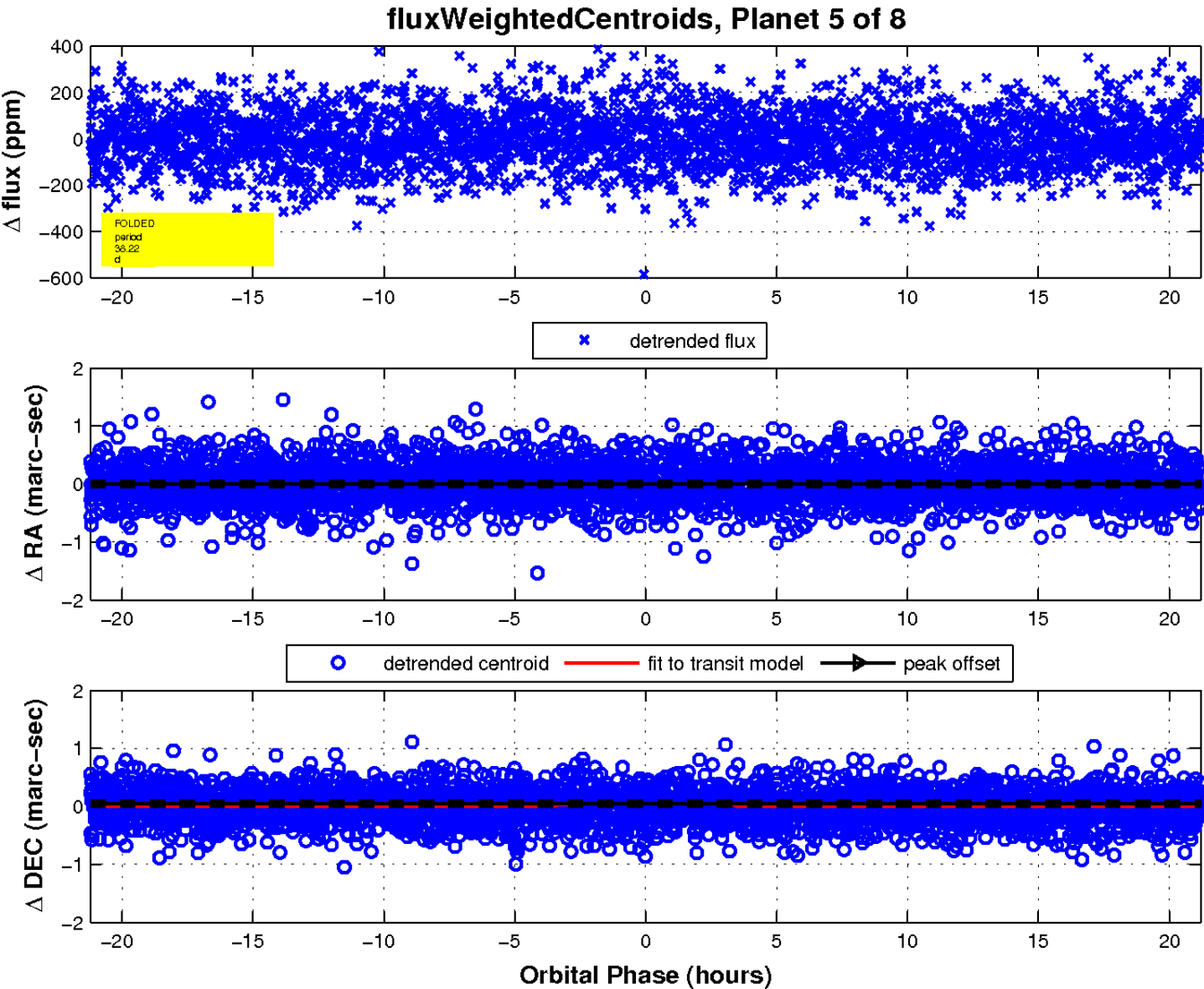
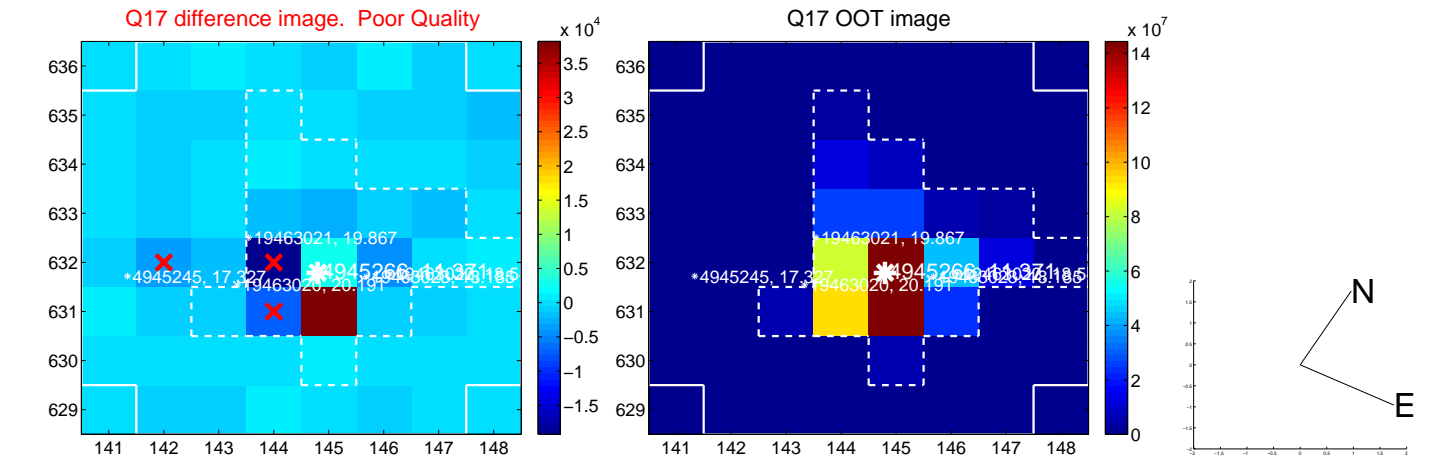
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

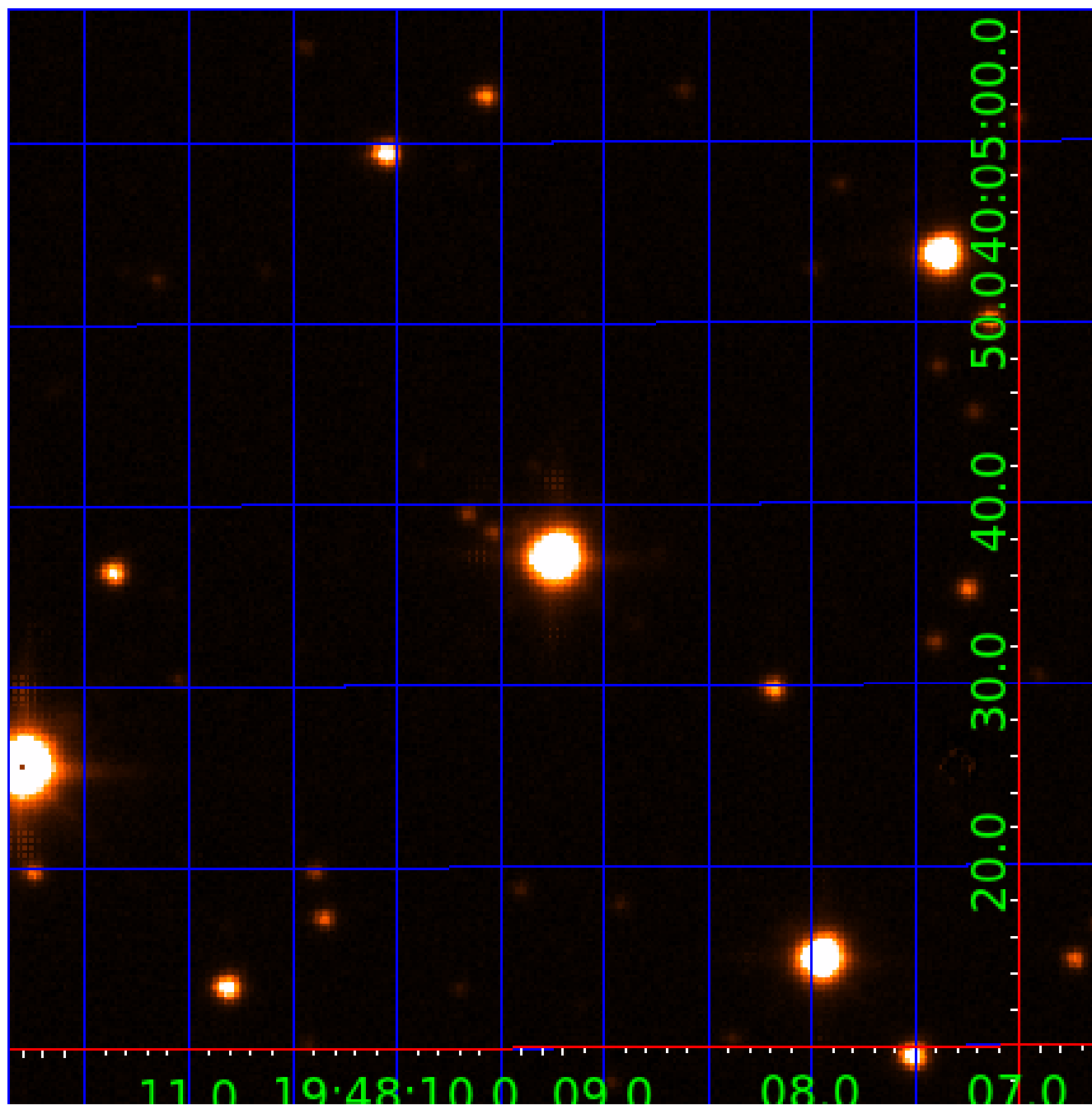


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 004945266

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})
004945266-01	OBS	No	1.197557	131.957025	3.7	7.974	8.7	2.6	1.77	6777	0.36	9611.85
004945266-02	OBS	No	197.254787	190.095347	218.2	4.735	12.6	9.4	1.77	6777	3.11	10.64
004945266-03	OBS	No	43.670555	173.893348	211.0	1.636	11.0	10.5	1.77	6777	2.97	79.48
004945266-04	OBS	No	58.180105	142.246997	118.0	6.605	9.6	8.6	1.77	6777	2.21	54.22
004945266-05	OBS	No	38.216314	166.445720	111.5	7.070	9.2	9.3	1.77	6777	2.06	94.96
004945266-06	OBS	No	239.524693	134.479079	196.6	26.074	10.3	10.2	1.77	6777	2.73	8.22
004945266-07	OBS	No	150.297522	241.464117	179.6	2.319	9.8	9.3	1.77	6777	2.69	15.30
004945266-08	OBS	No	25.564376	143.427468	169.2	1.330	10.0	10.1	1.77	6777	2.33	162.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004945266-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
004945266-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_SATURATED
004945266-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
004945266-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
004945266-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
004945266-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
004945266-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
004945266-08	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_SATURATED

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

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

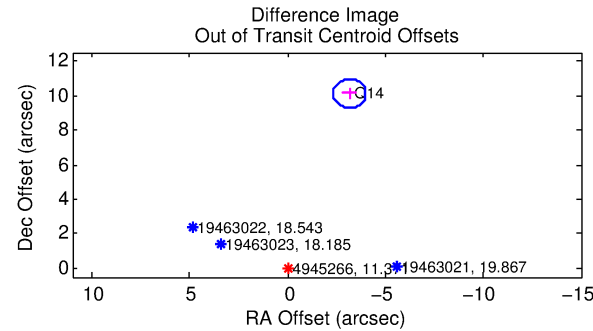
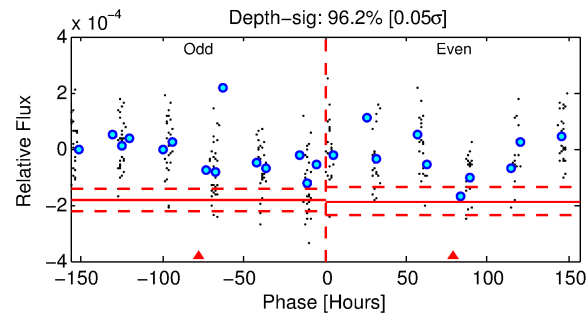
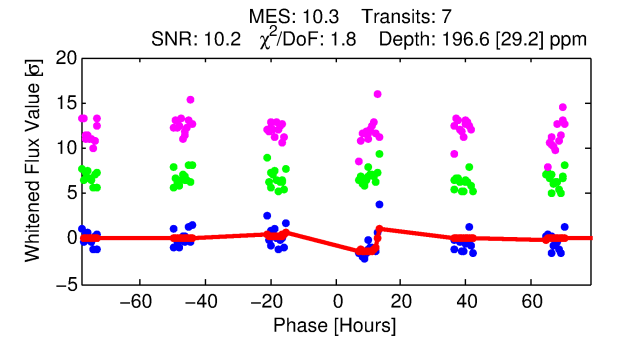
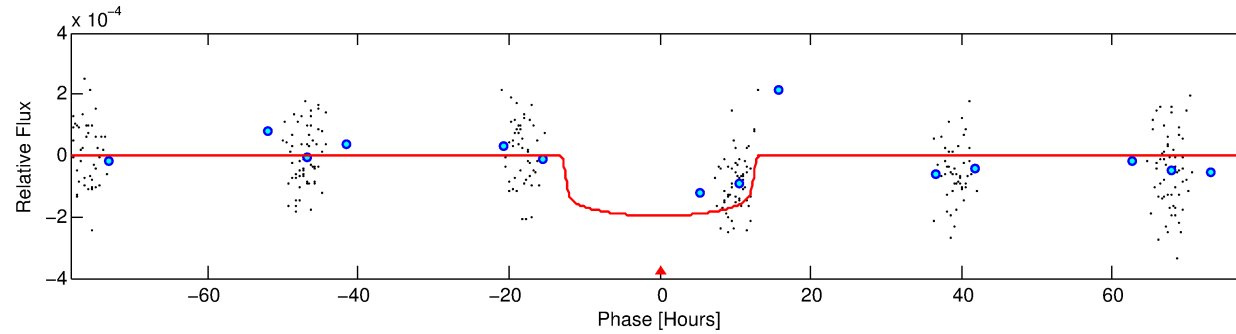
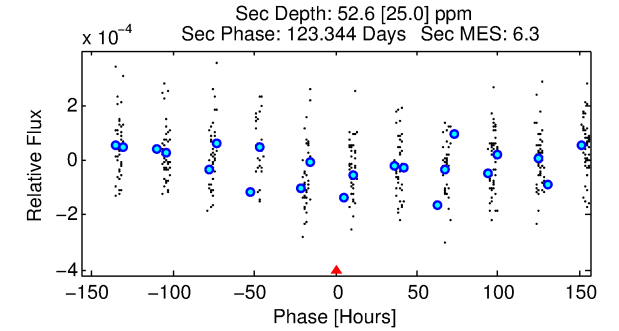
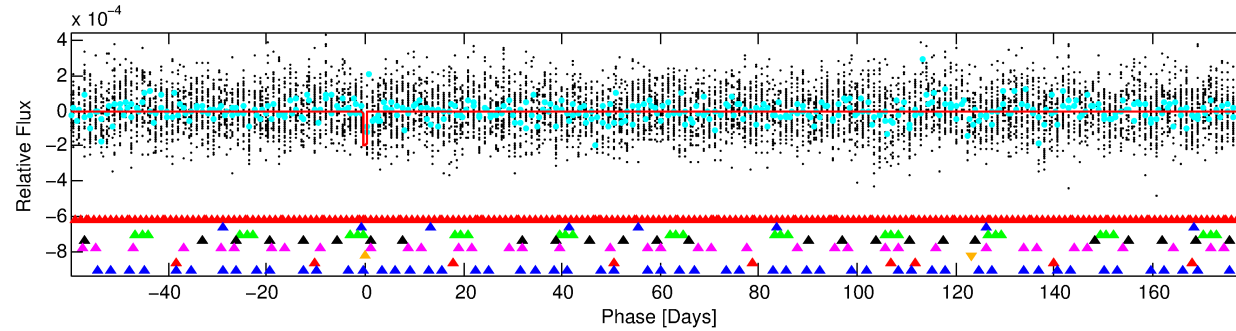
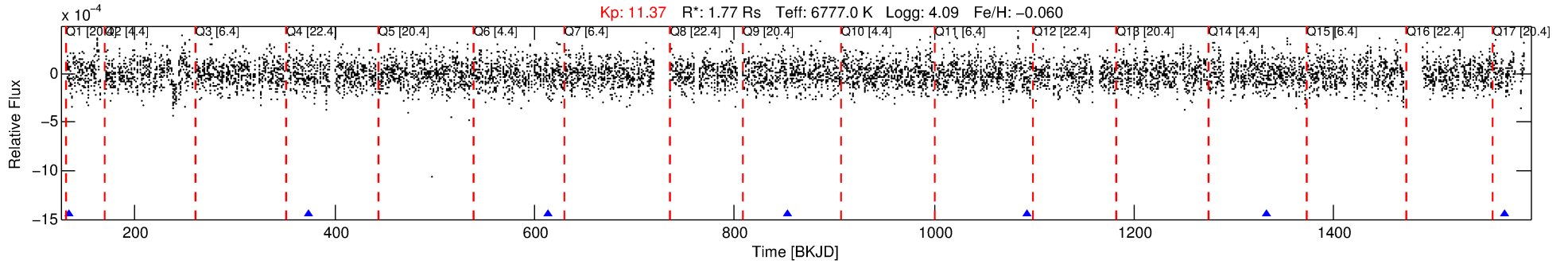
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004945266-06

No Significant Match Found

DV One-Page Summary

KIC: 4945266 Candidate: 6 of 8 Period: 239.525 d



DV Fit Results:

Period = 239.52469 [0.00983] d
Epoch = 134.4791 [0.0714] BKJD
Rp/R* = 0.0141 [0.0020]
a/R* = 44.24 [31.40]
b = 0.79 [0.30]
Seff = 8.22 [2.08]
Teq = 432 [27] K
Rp = 2.73 [0.67] Re
a = 0.8474 [0.1435] AU
Ag = 2792.46 [1681.65] [1.66σ]
Teff = 4852 [670] K [6.60σ]

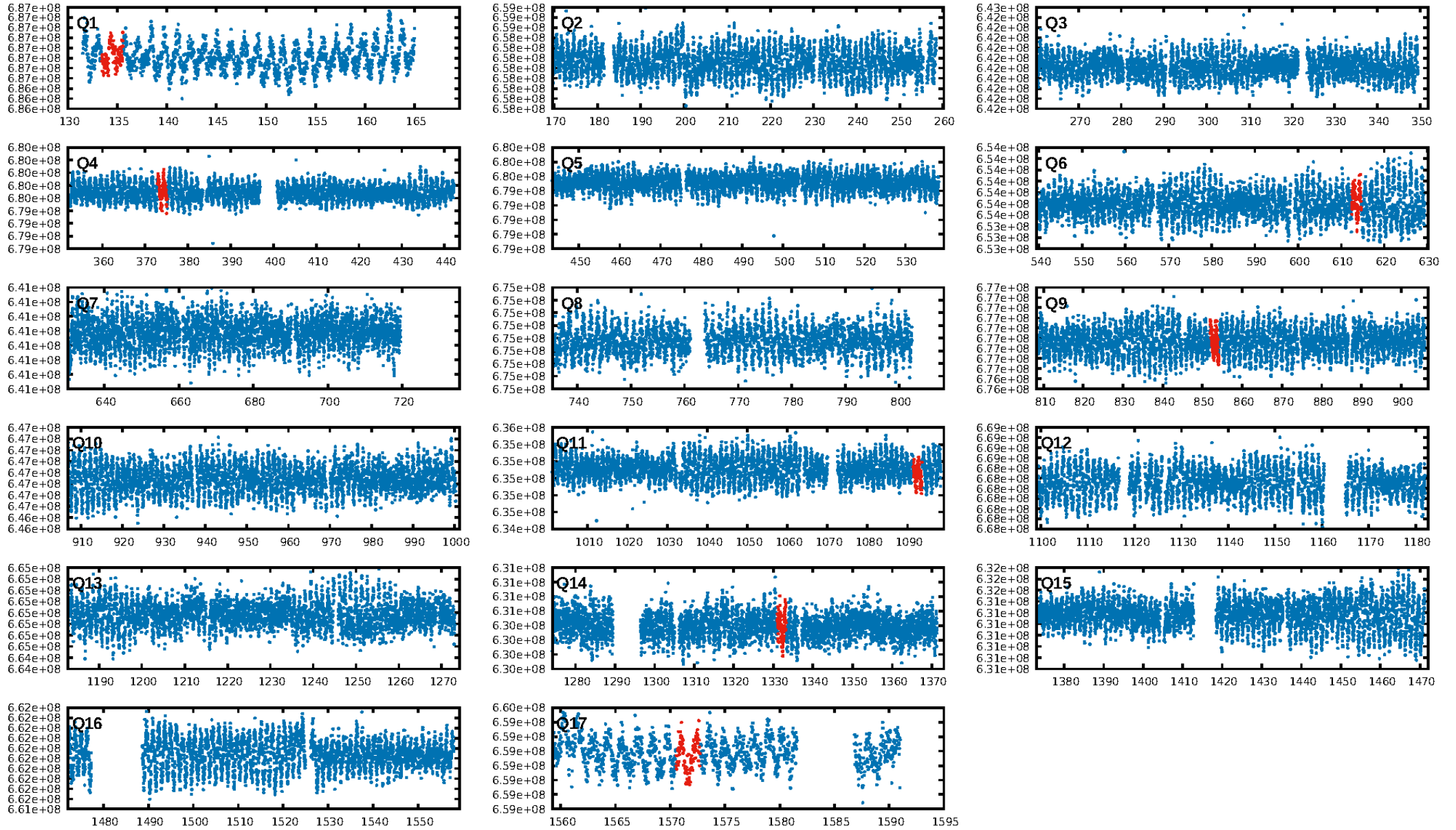
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [38.28σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 30.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 0.4496
Centroid-sig: 29.6%
Centroid-so: 0.430 arcsec [1.14σ]
OotOffset-rm: 10.597 arcsec [38.03σ]
KicOffset-rm: 10.480 arcsec [37.59σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 0.00 [0/5]

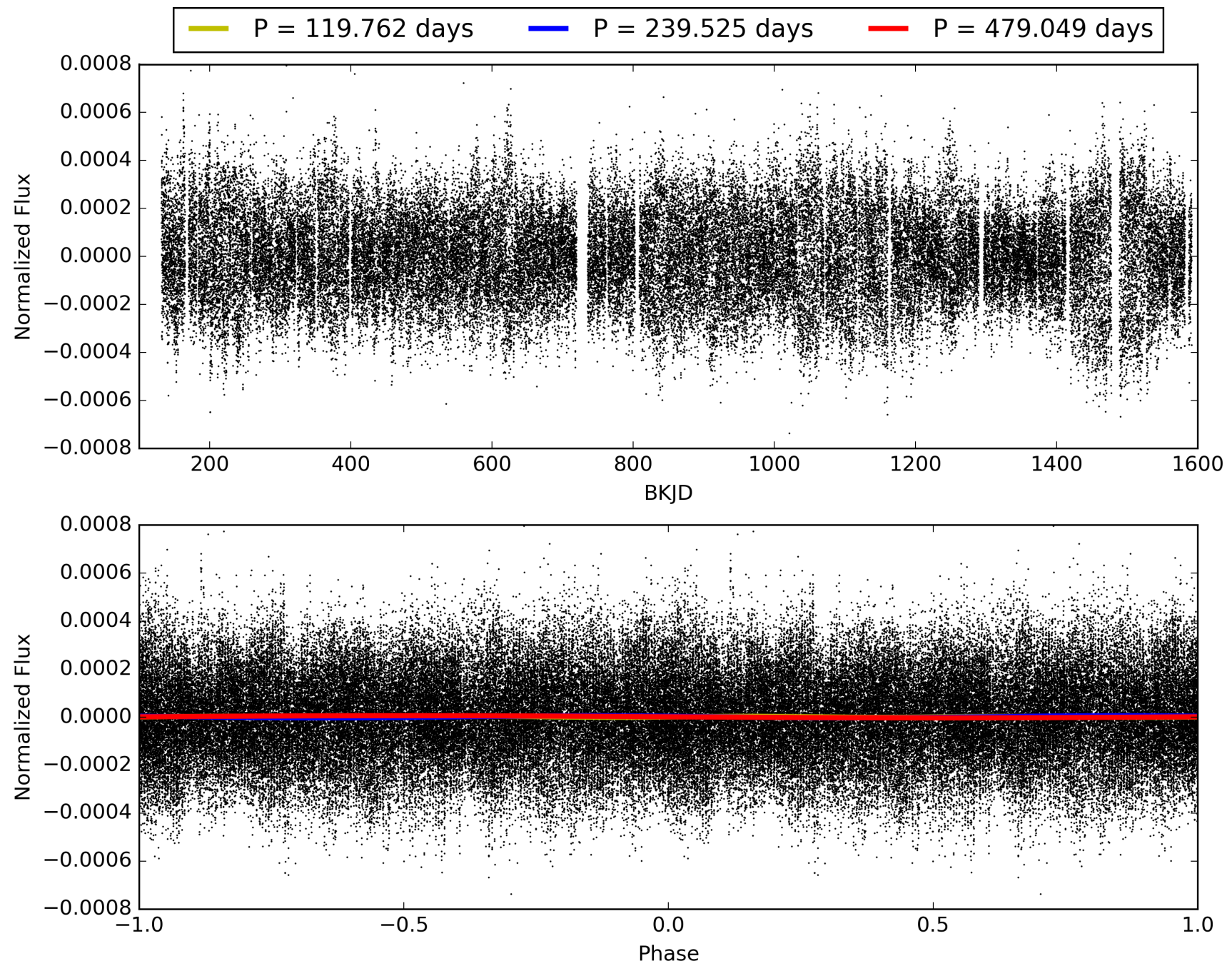
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:30:07 Z

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

TCE 004945266-06, PDC Light Curves

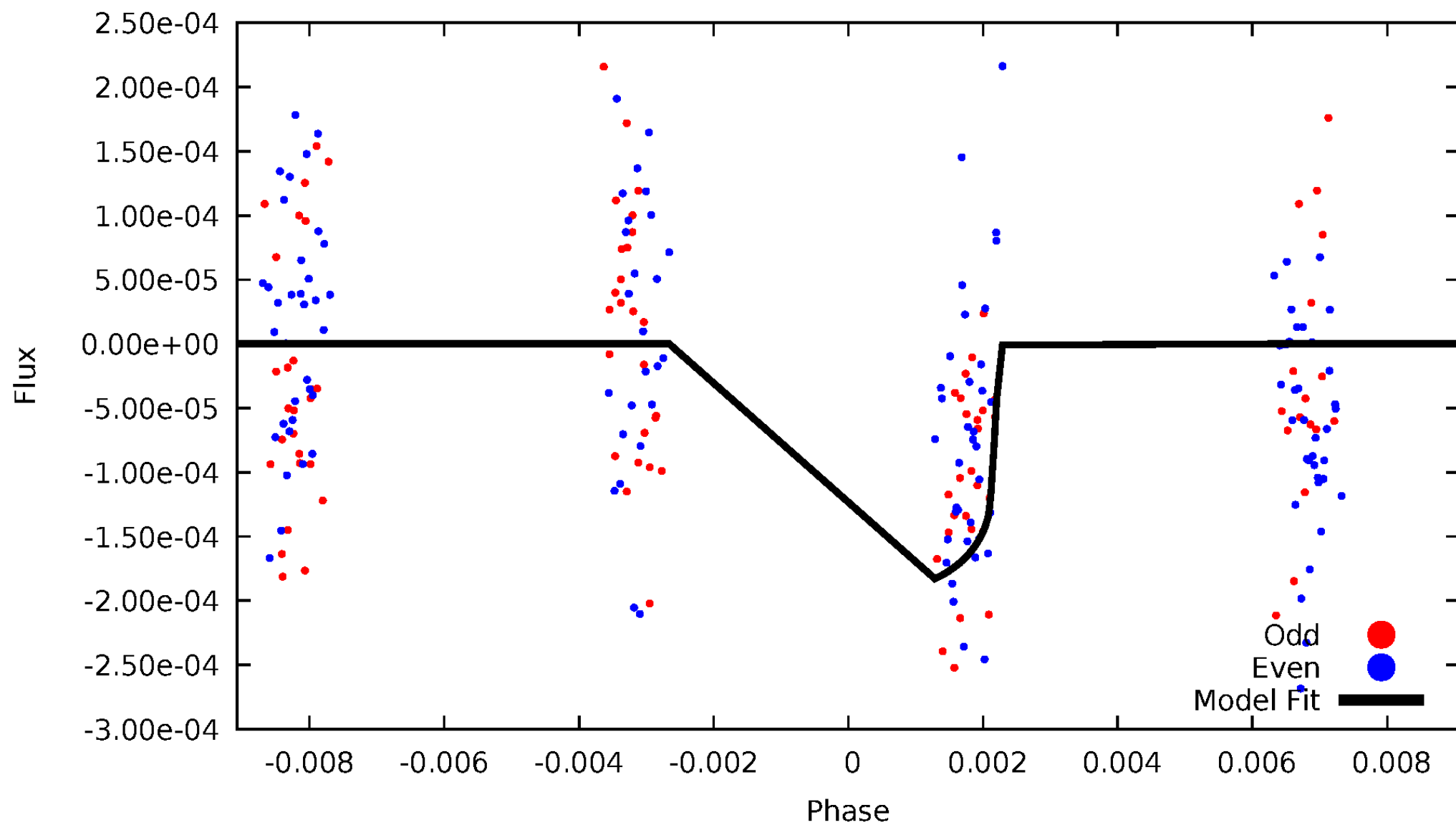


TCE 004945266-06



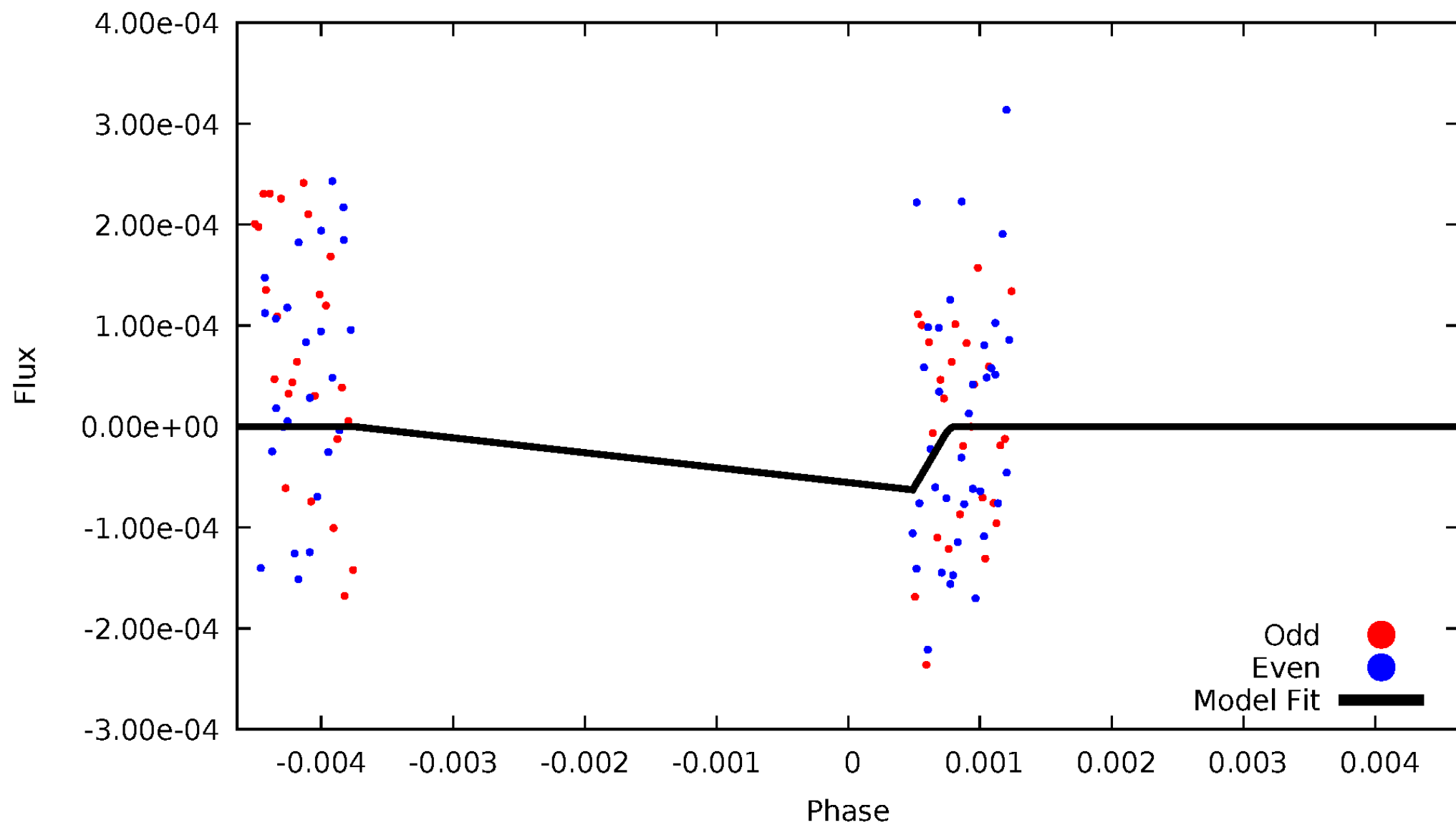
DV Odd/Even

TCE 004945266-06



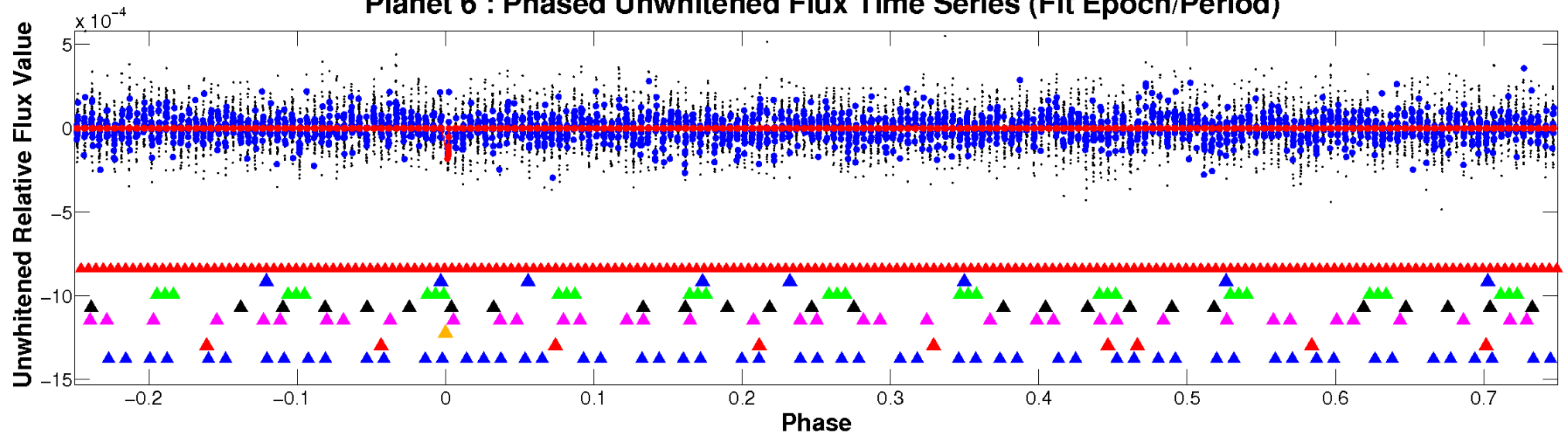
ALT Odd/Even

TCE 004945266-06

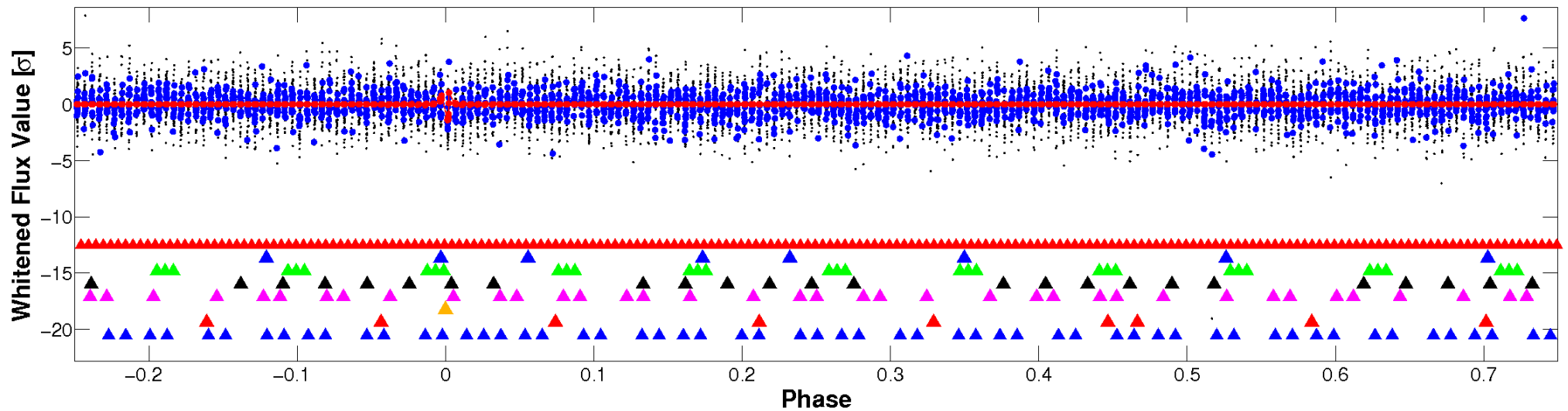


Non-Whitened Vs. Whitened Light Curve

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

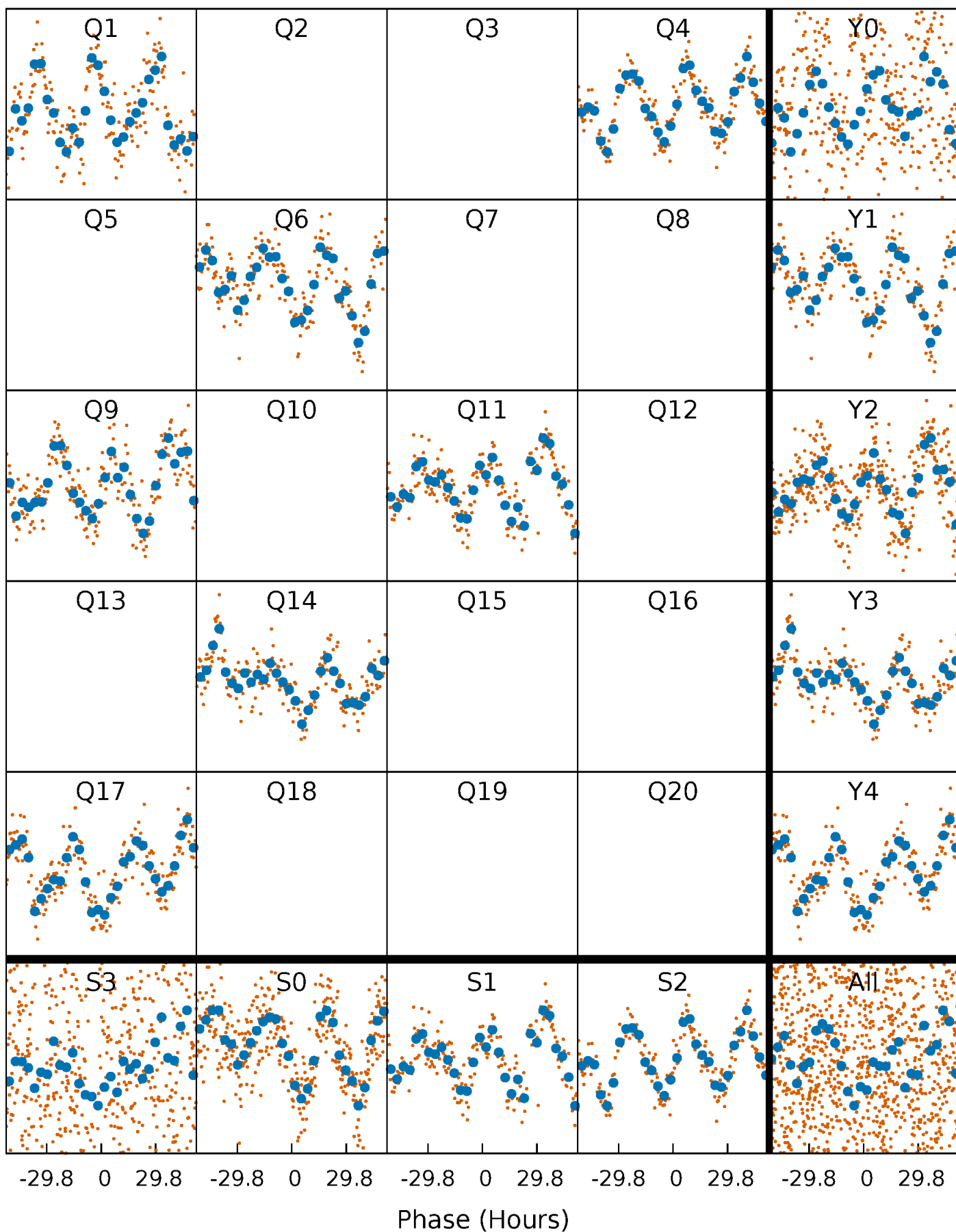


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



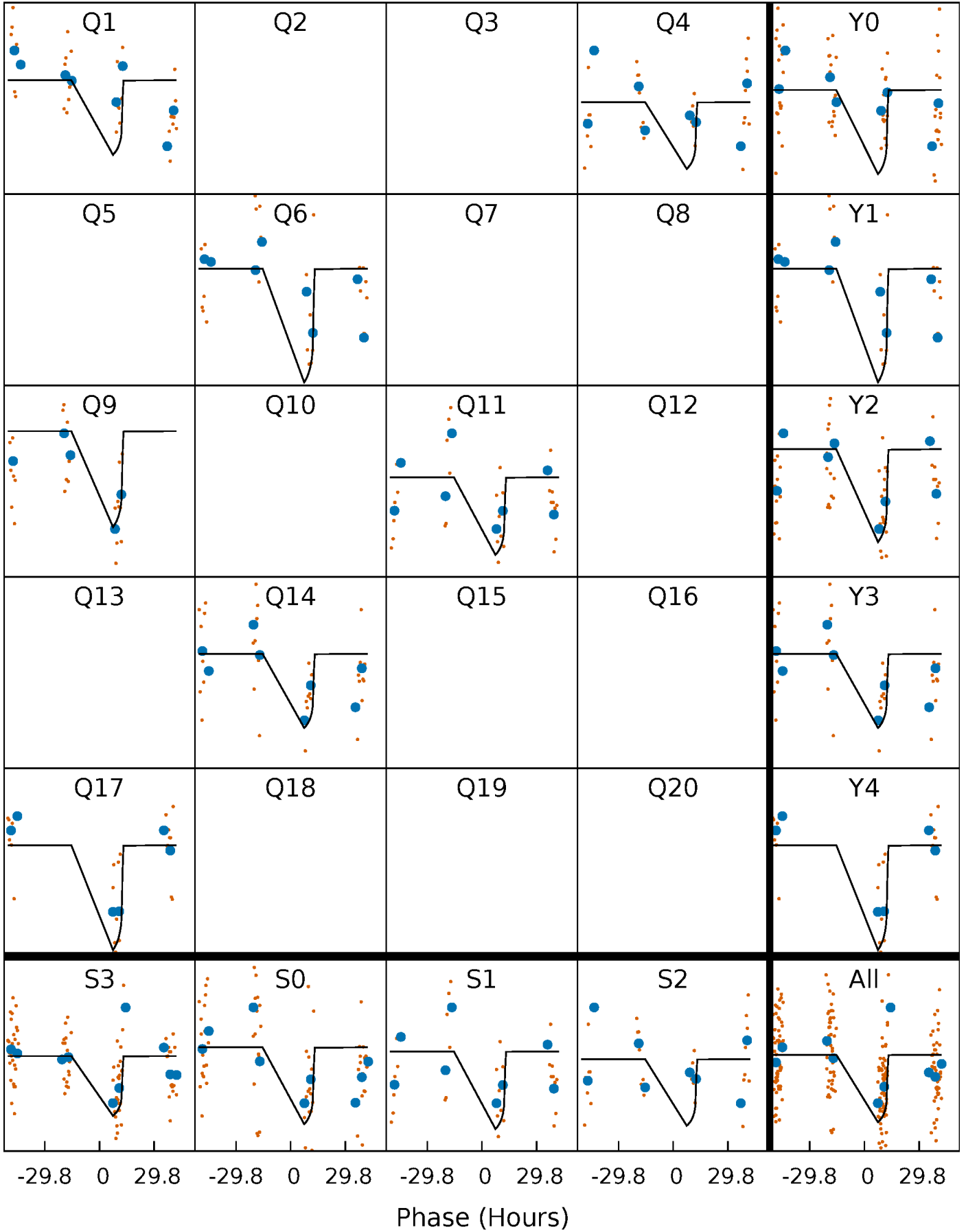
PDC Quarter-Phased Transit Curves

TCE 004945266-06 P=239.524693 Days $T_0=134.479079$ (BKJD)



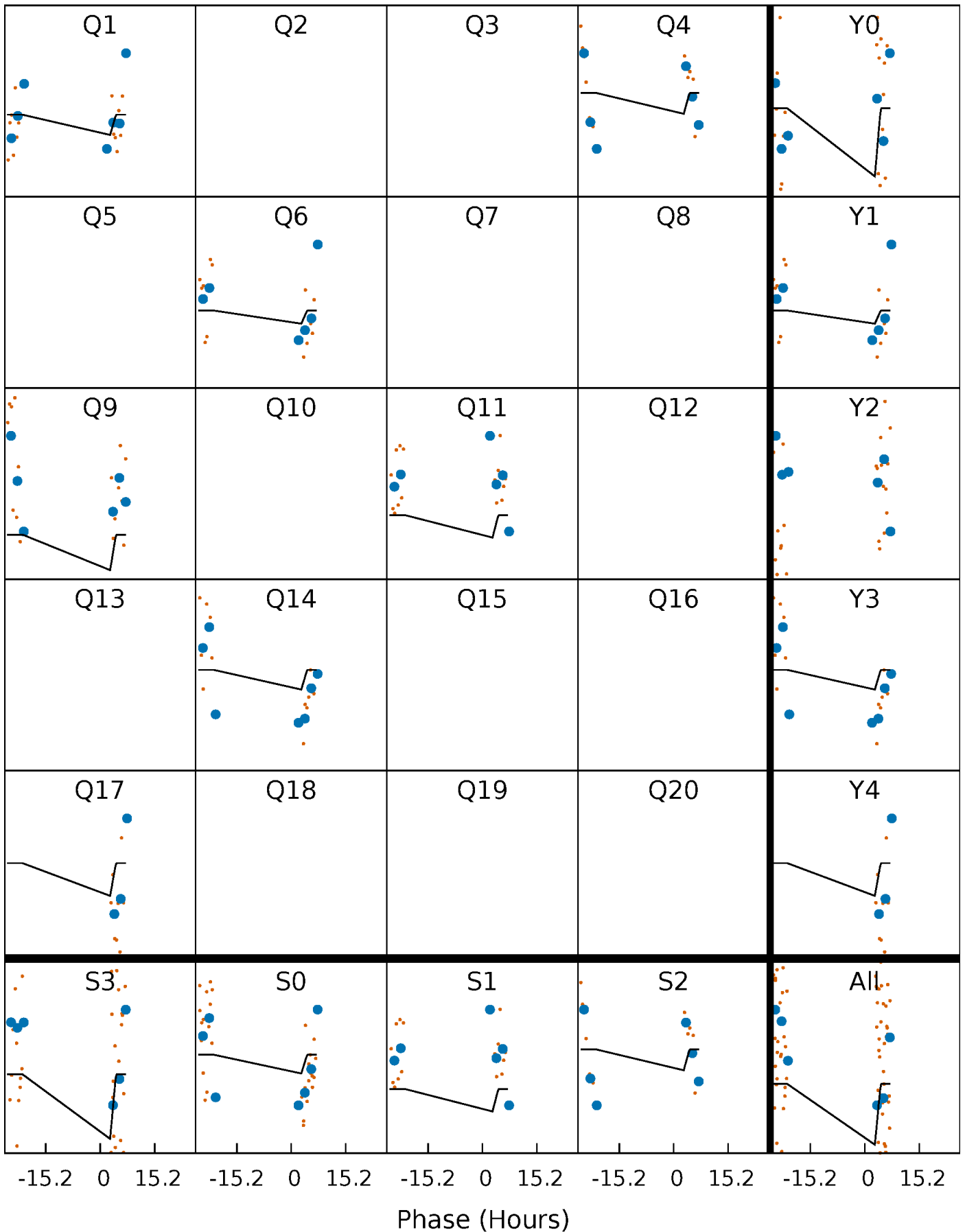
DV Quarter-Phased Transit Curves

TCE 004945266-06 P=239.524693 Days $T_0=134.479079$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

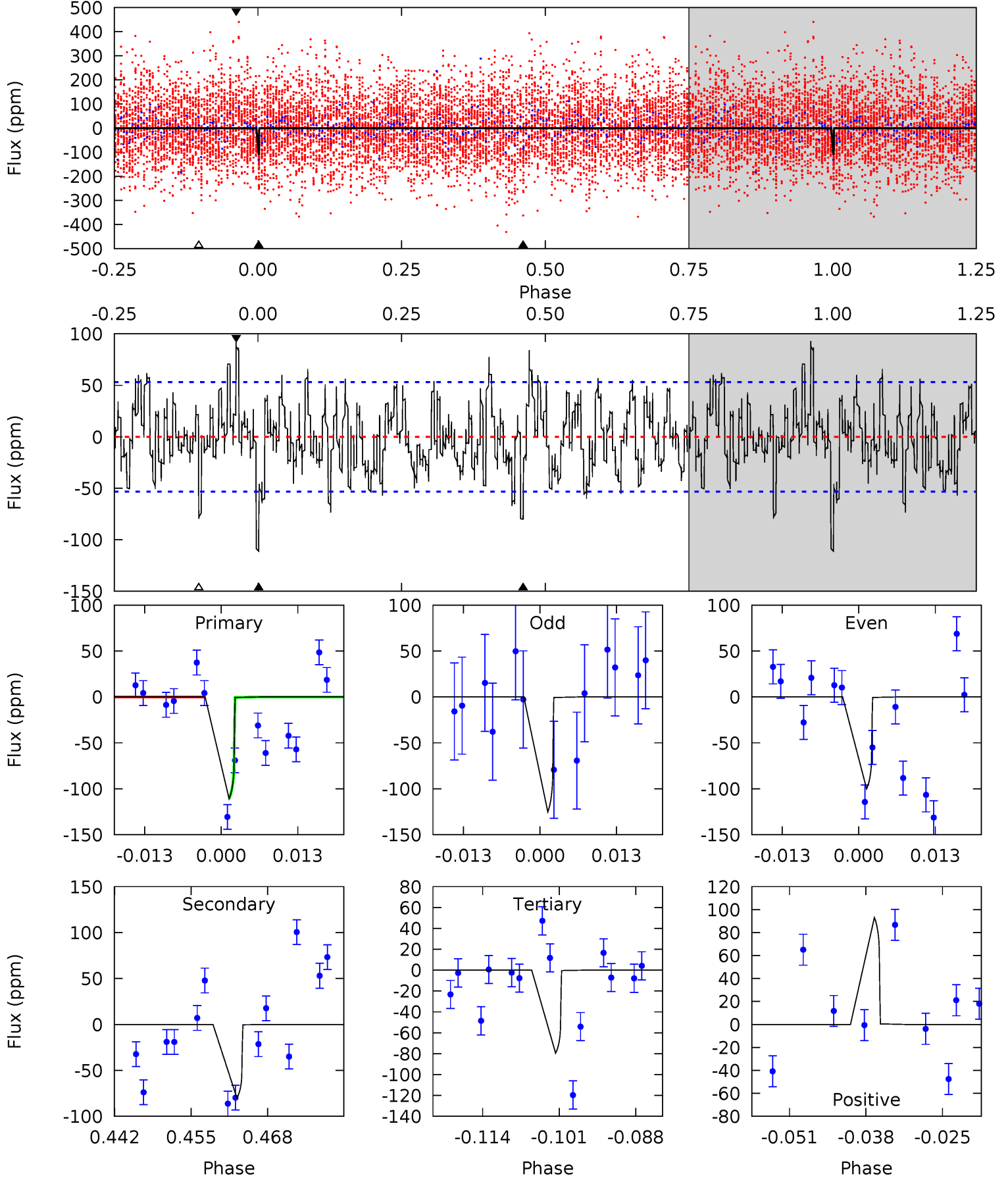
TCE 004945266-06 P=239.510031 Days $T_0=134.746377$ (BKJD)



DV Model-Shift Uniqueness Test

004945266-06, P = 239.524693 Days, E = 134.479079 Days

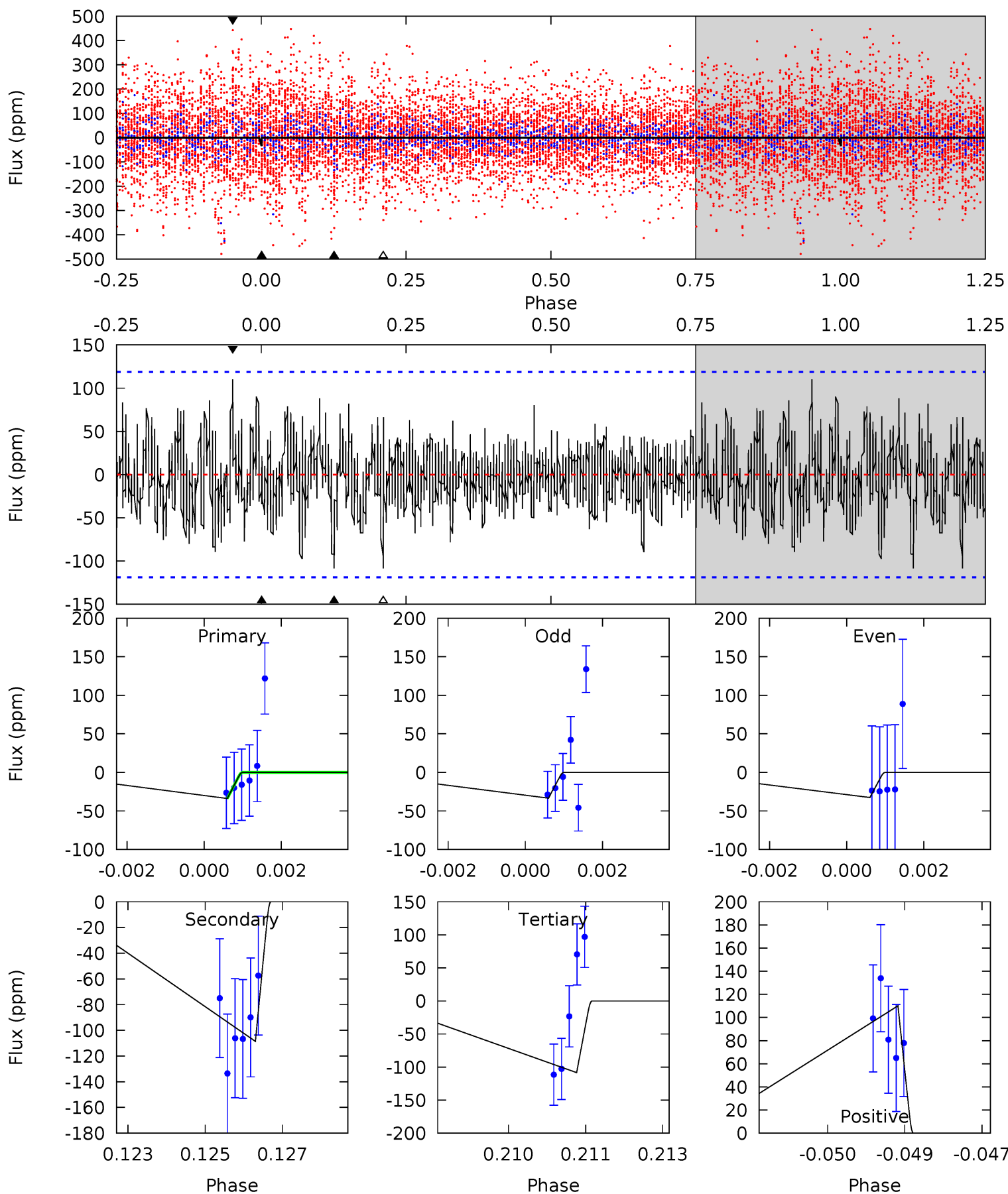
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.4	7.49	7.44	8.71	4.98	2.49	2.51	2.94	1.68	0.05	-1.22	1.18	0.98	0.46	0



Alt Model-Shift Uniqueness Test

004945266-06, P = 239.510031 Days, E = 134.746377 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.53	4.91	4.90	4.97	5.36	3.15	1.31	-3.37	-3.44	0.01	-0.07	0.02	0.38	0.50	0



Stellar Parameters For KIC 004945266

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6777^{+71}_{-91}	$4.094^{+0.135}_{-0.135}$	$-0.060^{+0.150}_{-0.150}$	$1.767^{+0.355}_{-0.323}$	$1.422^{+0.116}_{-0.129}$	$0.363^{+0.234}_{-0.142}$
	+1%/-1%	+3%/-3%	+250%/-250%	+20%/-18%	+8%/-9%	+64%/-39%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 004945266-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-80 ± 11	$2.72^{+0.48}_{-0.41}$	606^{+31}_{-29}	5403^{+416}_{-306}	4174^{+1818}_{-1149}
Alt.	-109 ± 22	$1.61^{+0.42}_{-0.42}$	603^{+31}_{-30}	7679^{+1429}_{-972}	16389^{+13232}_{-6558}

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 $A_{\text{obs}} \gg 1.0$

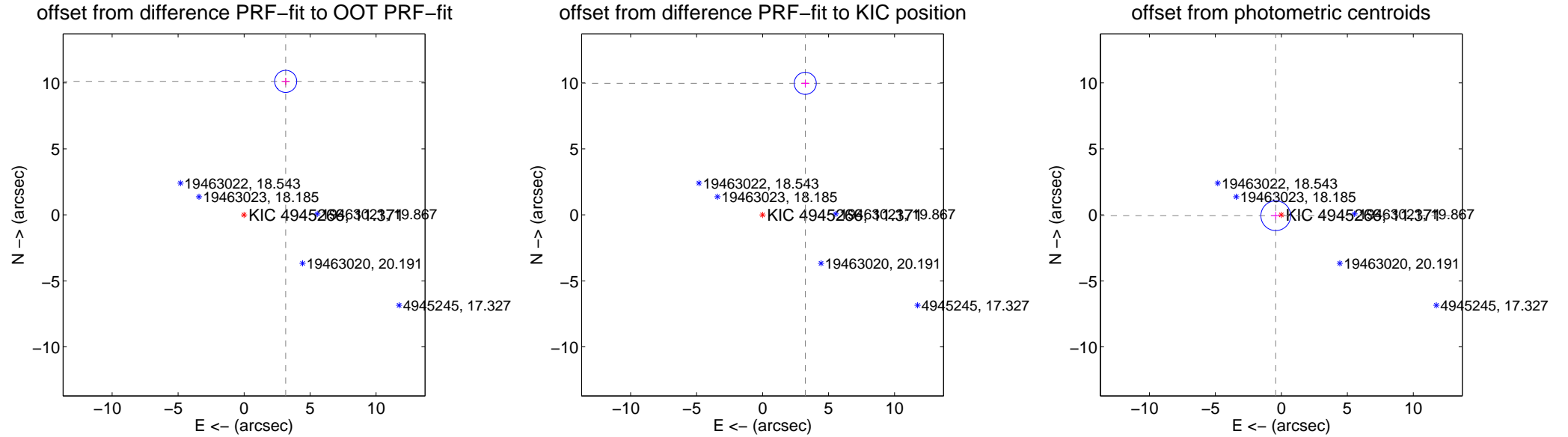
DV Centroid Data

Supplemental centroid analysis for 004945266-06. **Kepler magnitude: 11.37.** Transit SNR 10.15

There are 0 quarters with good PRF difference image offsets

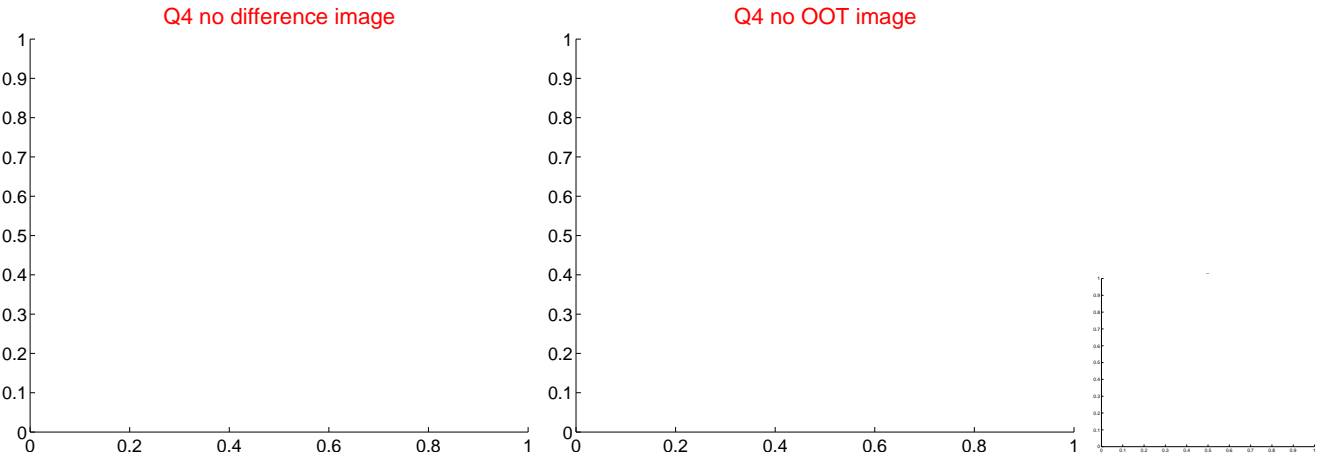
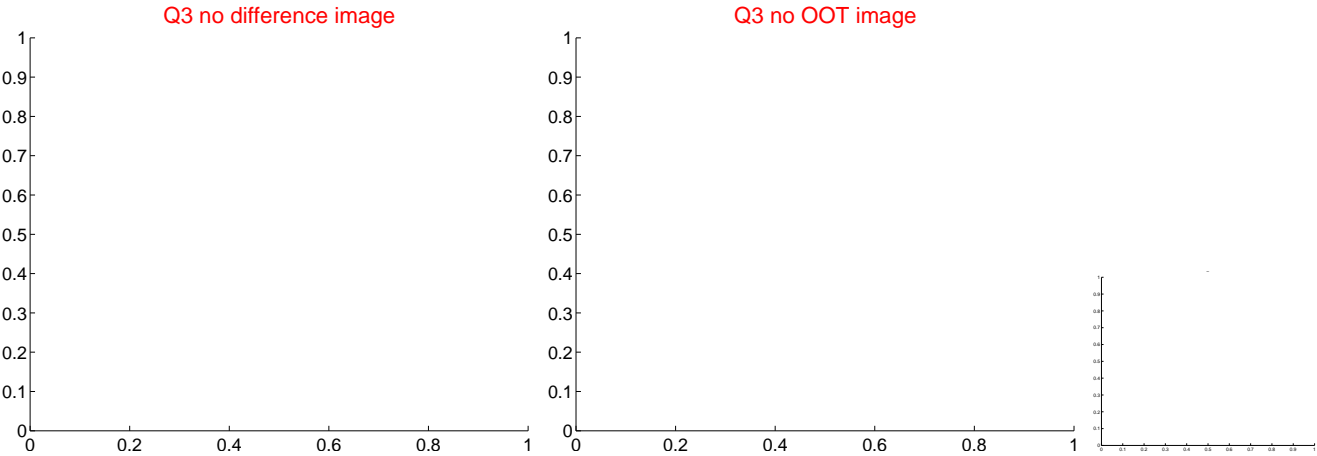
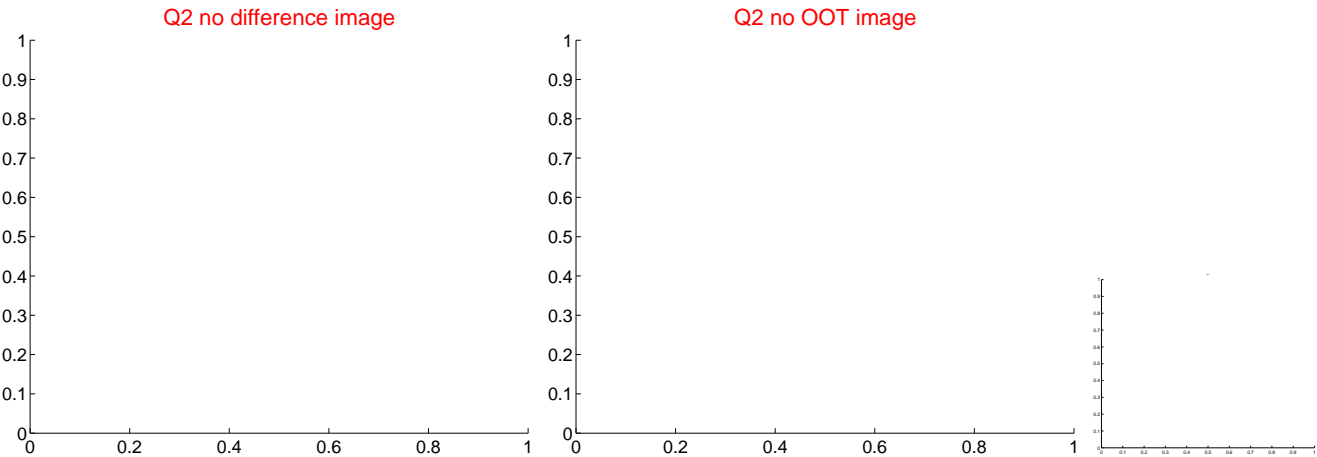
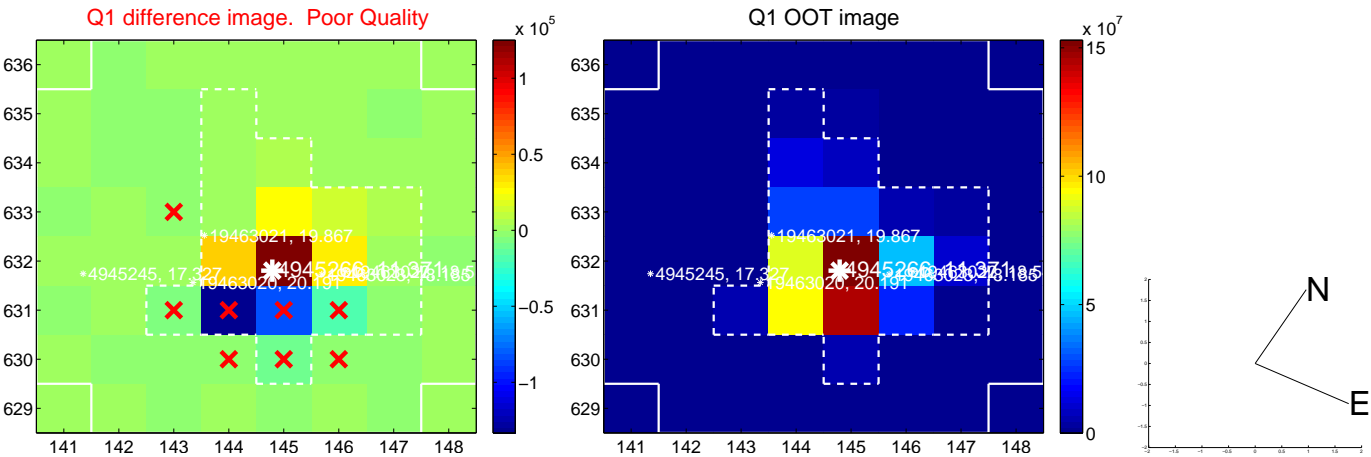
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	10.597 \pm 0.279	38.03	-3.153 \pm 0.303	10.117 \pm 0.276
PRF-fit source offset from KIC position	10.480 \pm 0.279	37.59	-3.234 \pm 0.303	9.969 \pm 0.276
photometric centroid source offset	0.43 \pm 0.38	1.14	0.43 \pm 0.38	-0.06 \pm 0.29

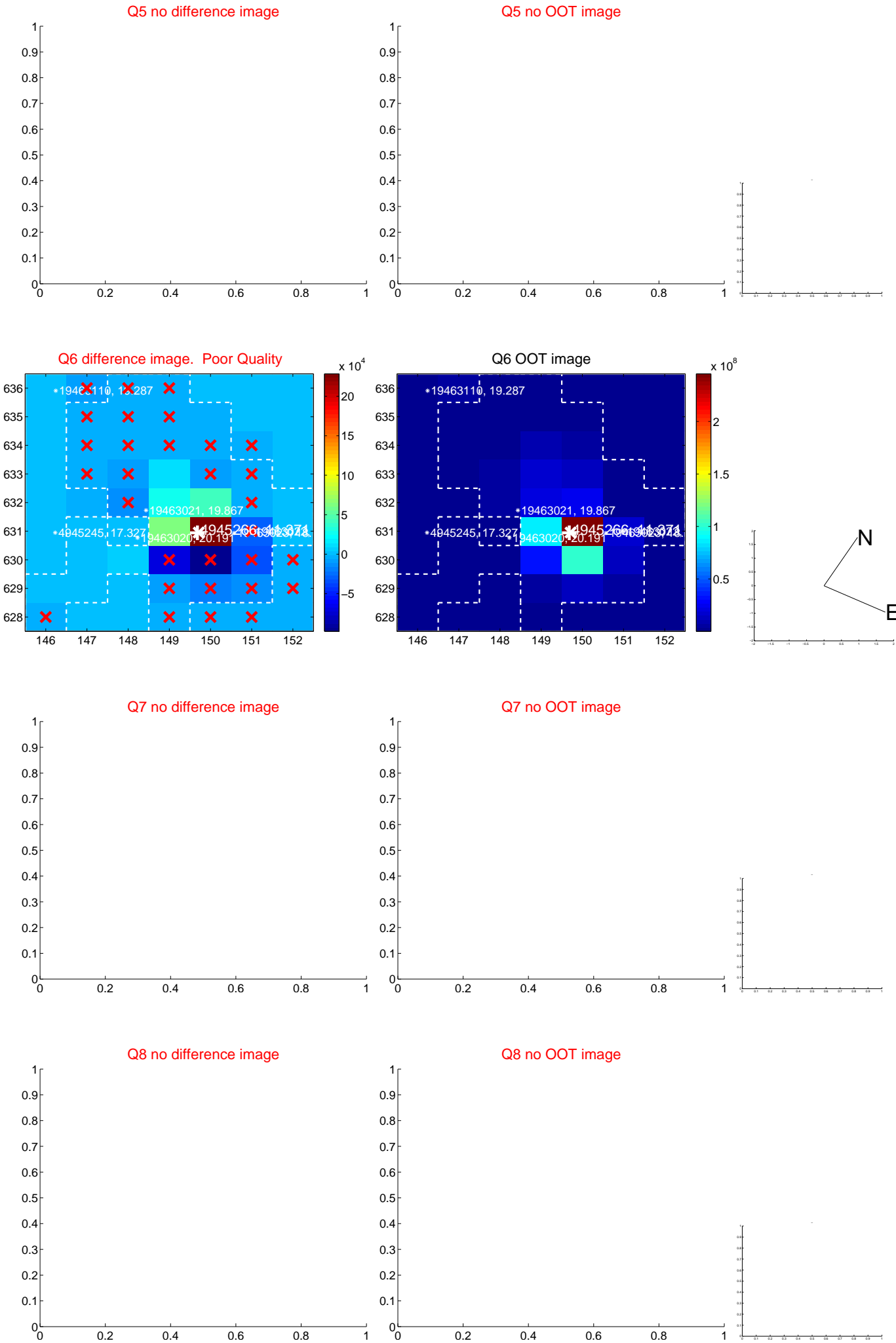


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

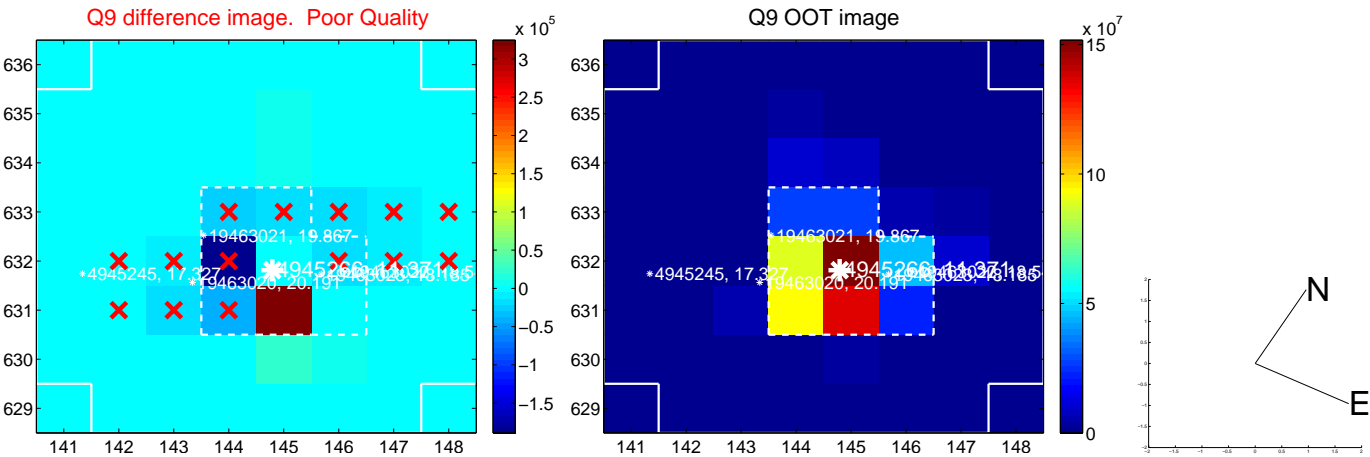
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



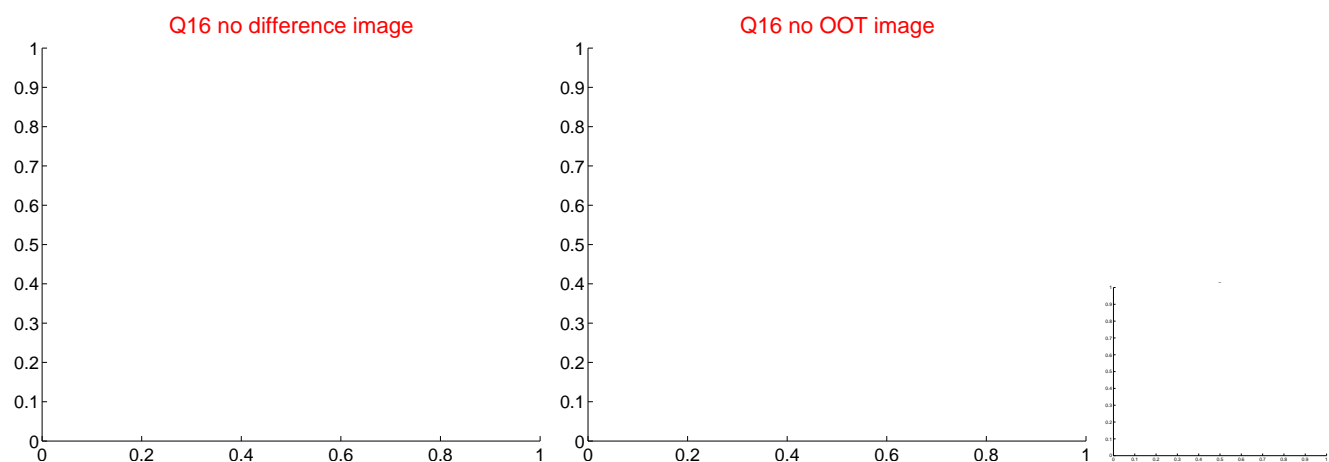
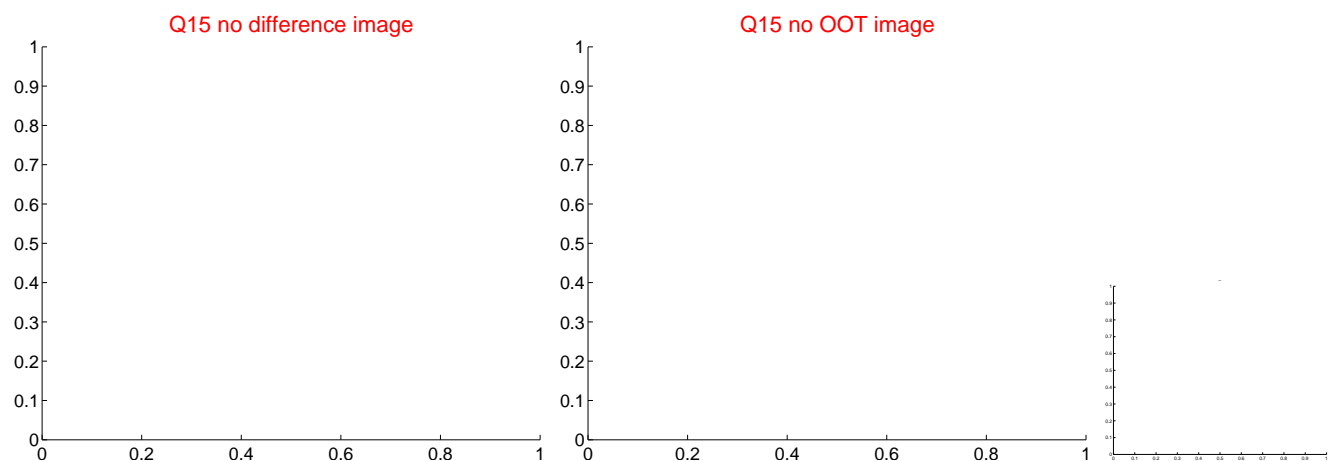
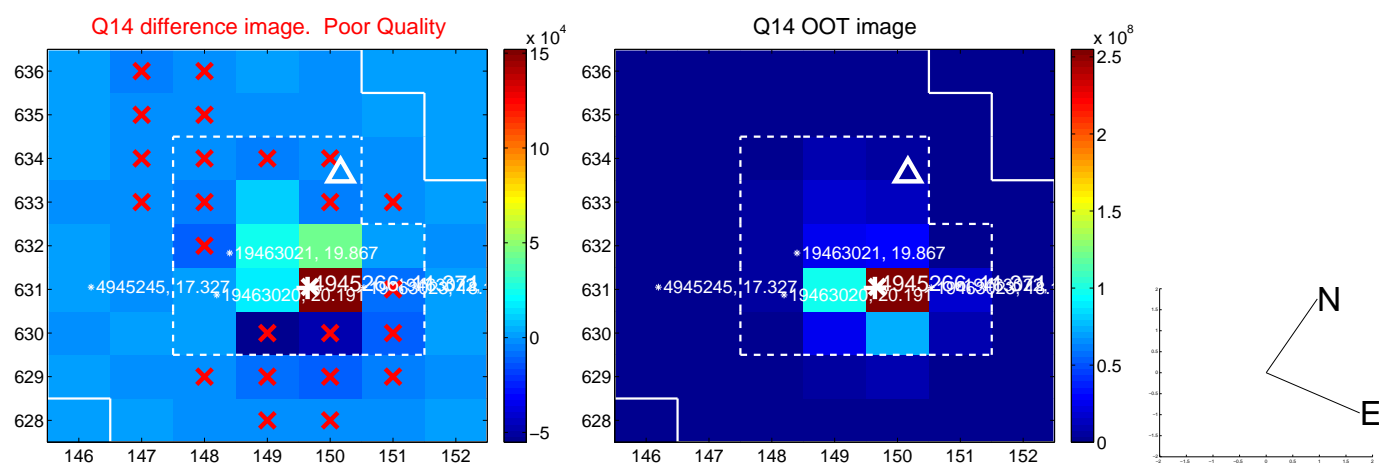
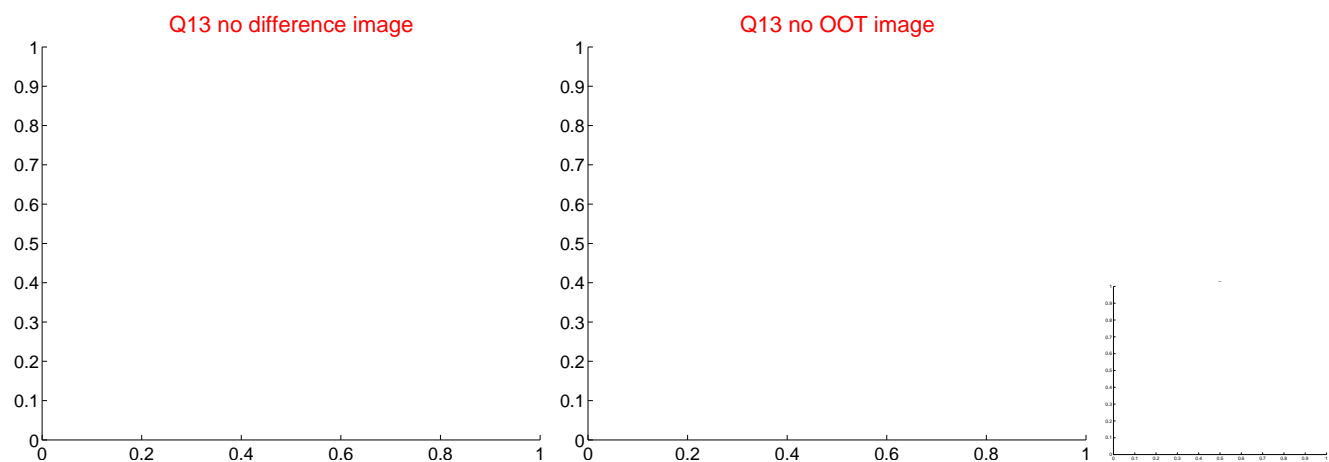
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



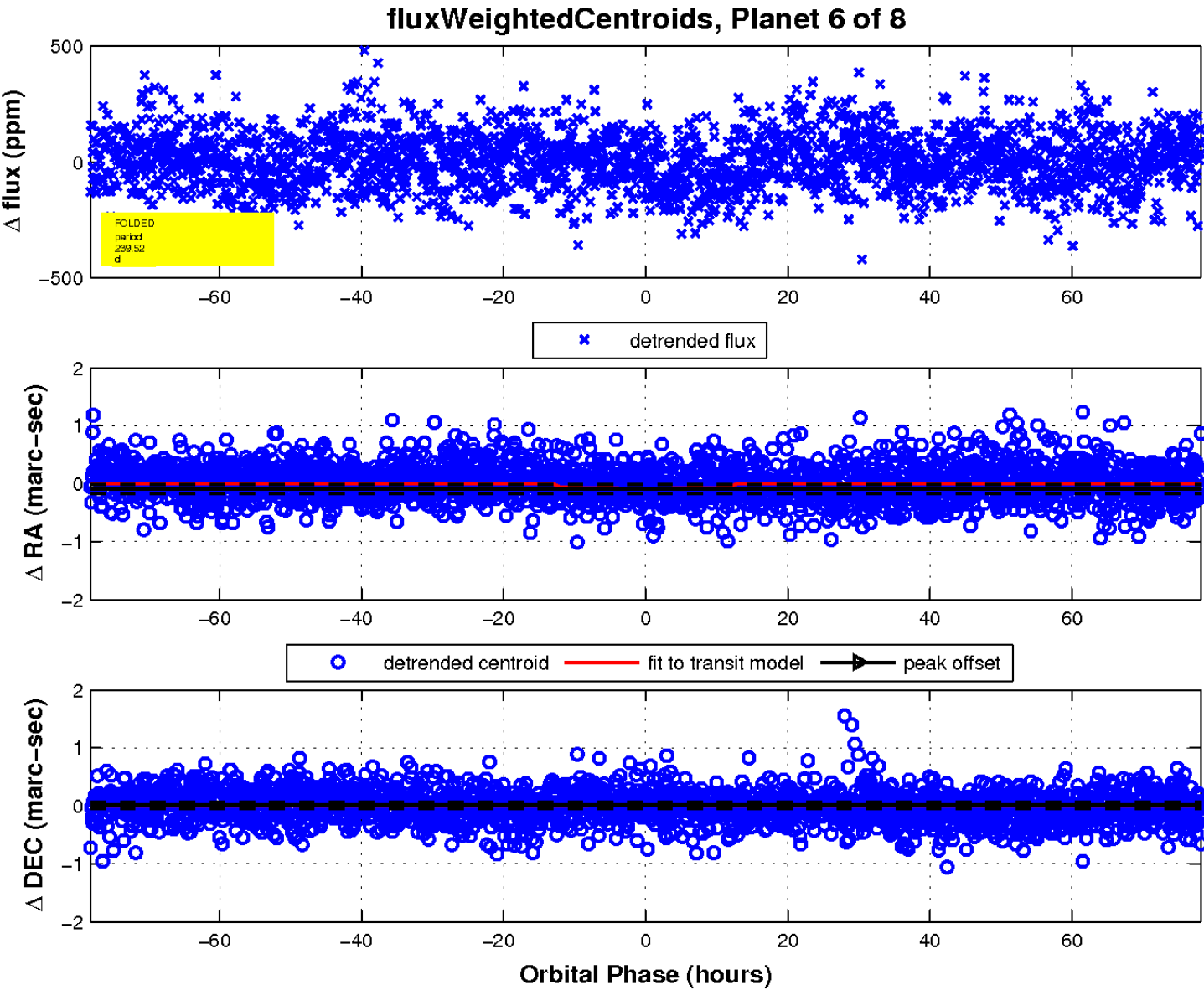
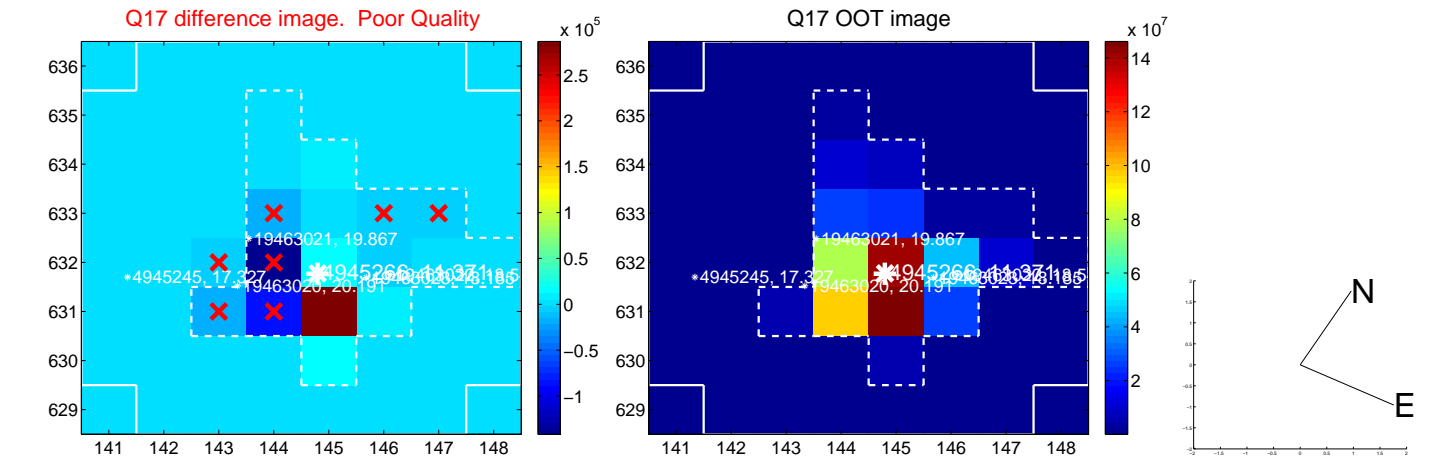
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

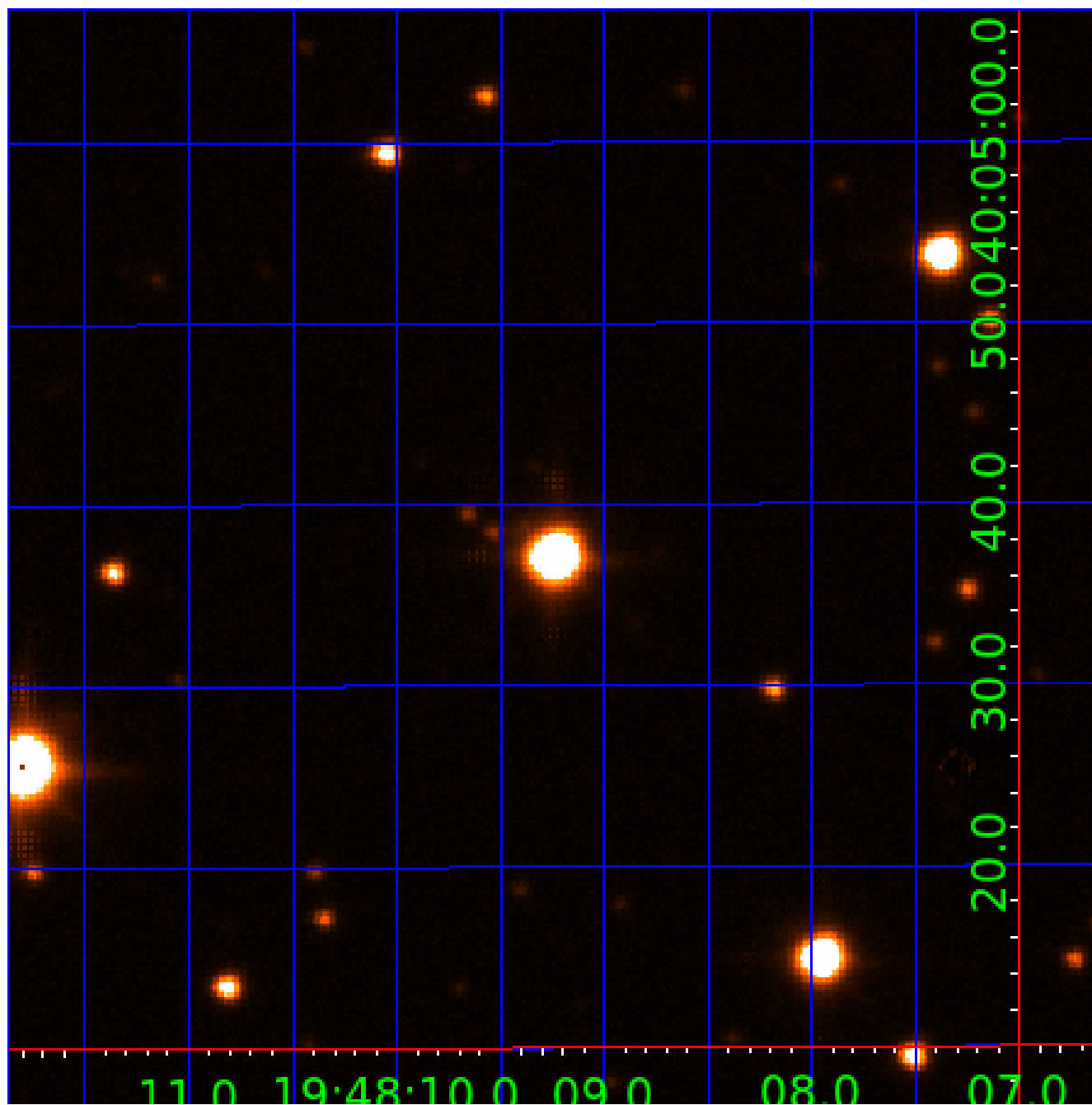


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 004945266

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})
004945266-01	OBS	No	1.197557	131.957025	3.7	7.974	8.7	2.6	1.77	6777	0.36	9611.85
004945266-02	OBS	No	197.254787	190.095347	218.2	4.735	12.6	9.4	1.77	6777	3.11	10.64
004945266-03	OBS	No	43.670555	173.893348	211.0	1.636	11.0	10.5	1.77	6777	2.97	79.48
004945266-04	OBS	No	58.180105	142.246997	118.0	6.605	9.6	8.6	1.77	6777	2.21	54.22
004945266-05	OBS	No	38.216314	166.445720	111.5	7.070	9.2	9.3	1.77	6777	2.06	94.96
004945266-06	OBS	No	239.524693	134.479079	196.6	26.074	10.3	10.2	1.77	6777	2.73	8.22
004945266-07	OBS	No	150.297522	241.464117	179.6	2.319	9.8	9.3	1.77	6777	2.69	15.30
004945266-08	OBS	No	25.564376	143.427468	169.2	1.330	10.0	10.1	1.77	6777	2.33	162.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004945266-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
004945266-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_SATURATED
004945266-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
004945266-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
004945266-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
004945266-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
004945266-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
004945266-08	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_SATURATED

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

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

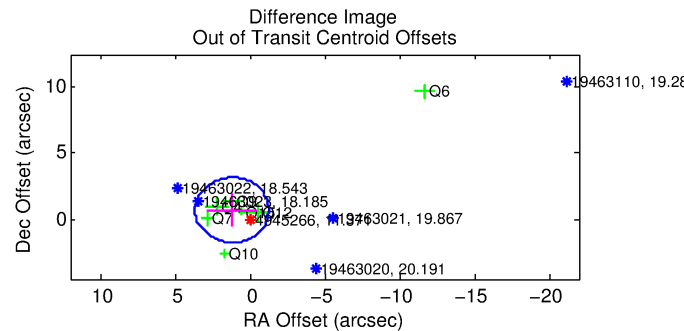
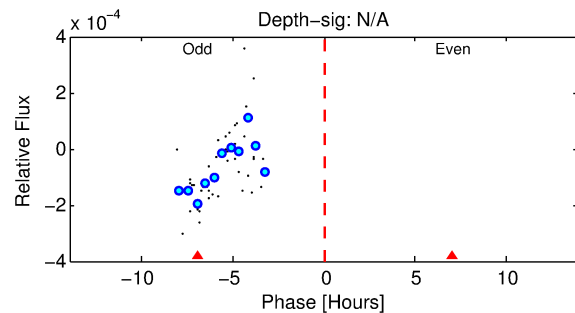
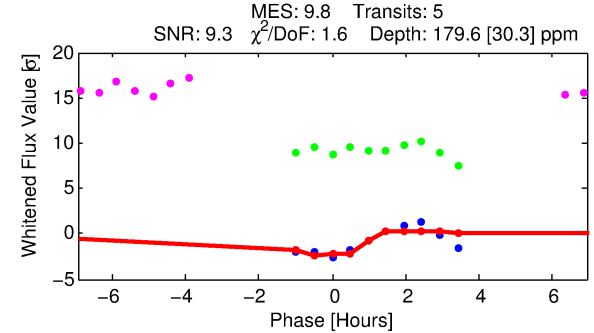
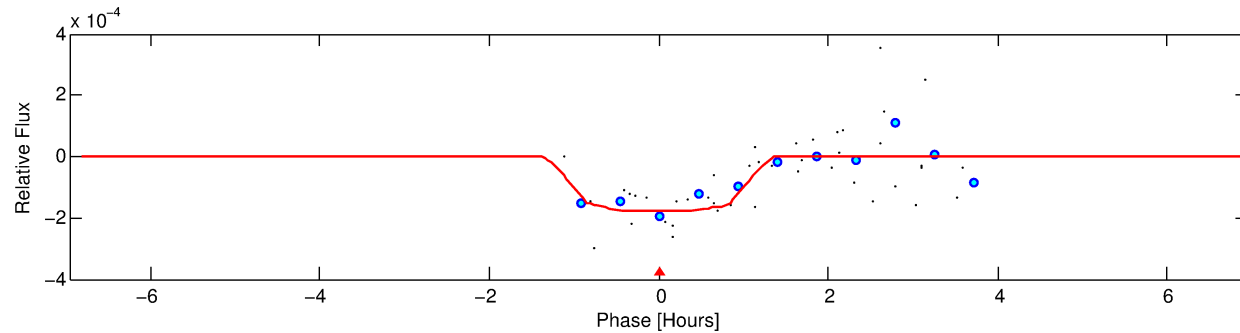
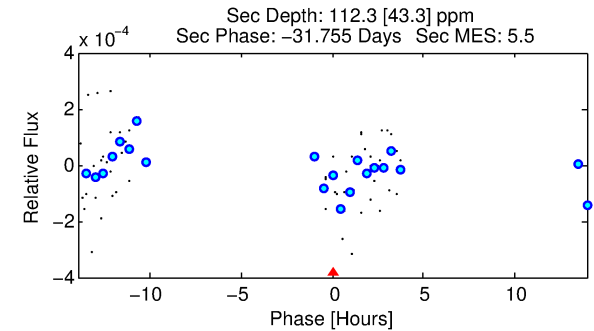
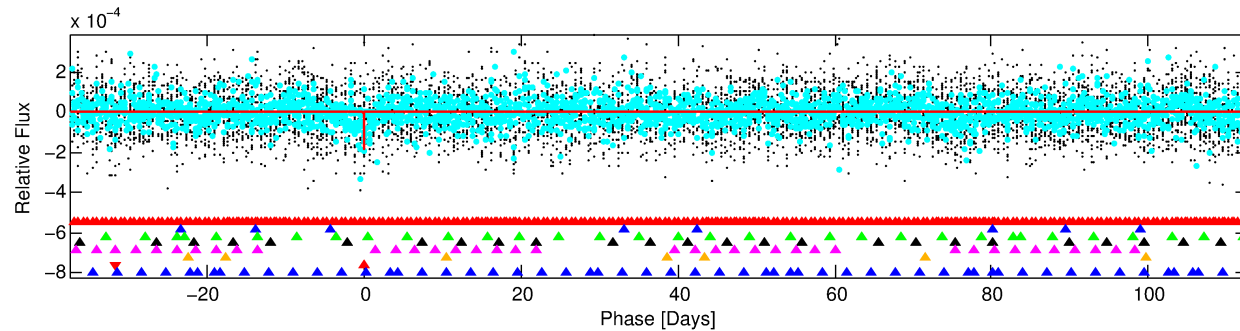
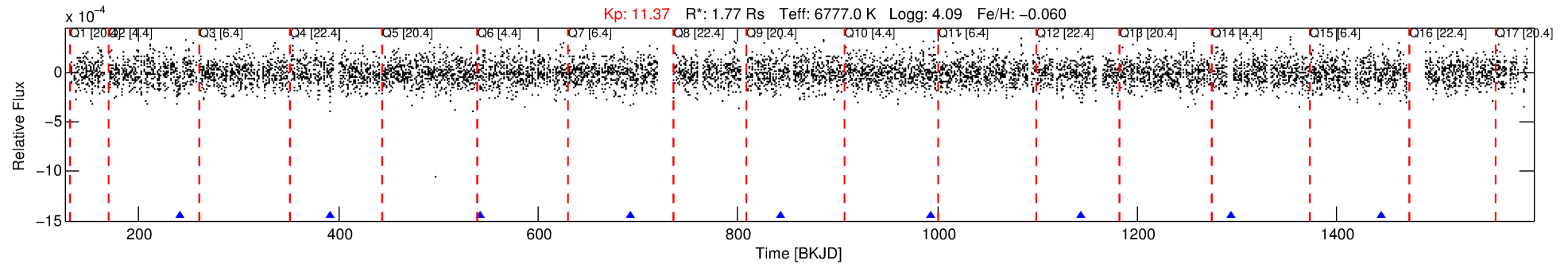
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004945266-07

No Significant Match Found

DV One-Page Summary

KIC: 4945266 Candidate: 7 of 8 Period: 150.298 d



DV Fit Results:

Period = 150.29752 [0.00209] d
Epoch = 241.4641 [0.0124] BKJD
Rp/R* = 0.0140 [0.0191]
a/R* = 263.63 [2132.63]
b = 0.86 [2.42]
Seff = 15.30 [3.86]
Teq = 504 [32] K
Rp = 2.69 [3.72] Re
a = 0.6211 [0.1052] AU
Ag = 3282.44 [9082.30] [0.36σ]
Teffp = 5902 [4067] K [1.33σ]

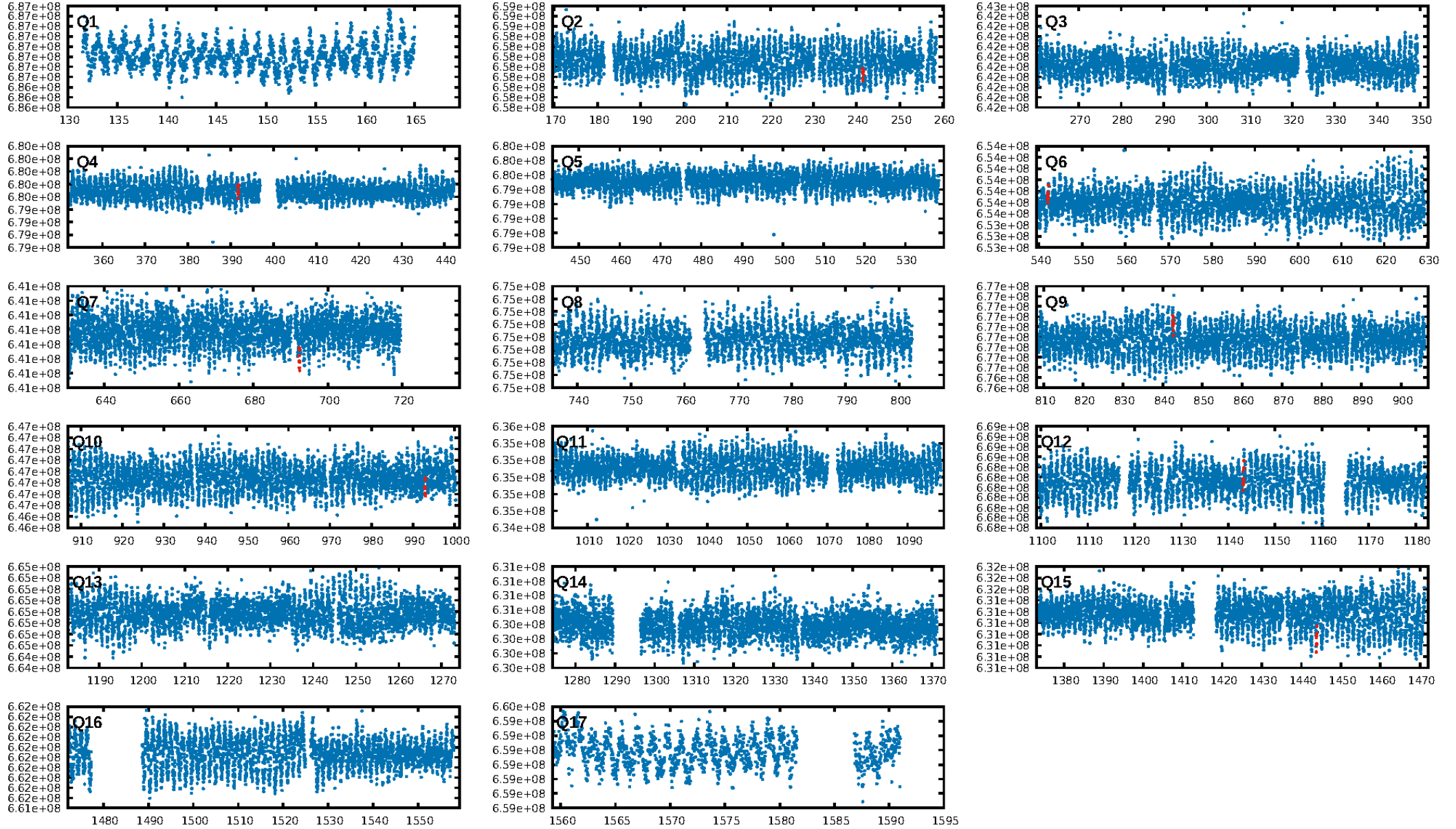
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [315.83σ]
LongPeriod-sig: 100.0% [213.75σ]
ModelChiSquare2-sig: 88.7%
ModelChiSquareGof-sig: 99.2%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: -5.057
Centroid-sig: 81.5%
Centroid-so: 0.432 arcsec [0.48σ]
OotOffset-rm: 1.394 arcsec [1.70σ]
KicOffset-rm: 1.351 arcsec [1.55σ]
OotOffset-st: 2/2/2/1 [7]
KicOffset-st: 2/2/2/1 [7]
DiffImageQuality-fgm: 0.71 [5/7]
DiffImageOverlap-fno: 0.62 [5/8]

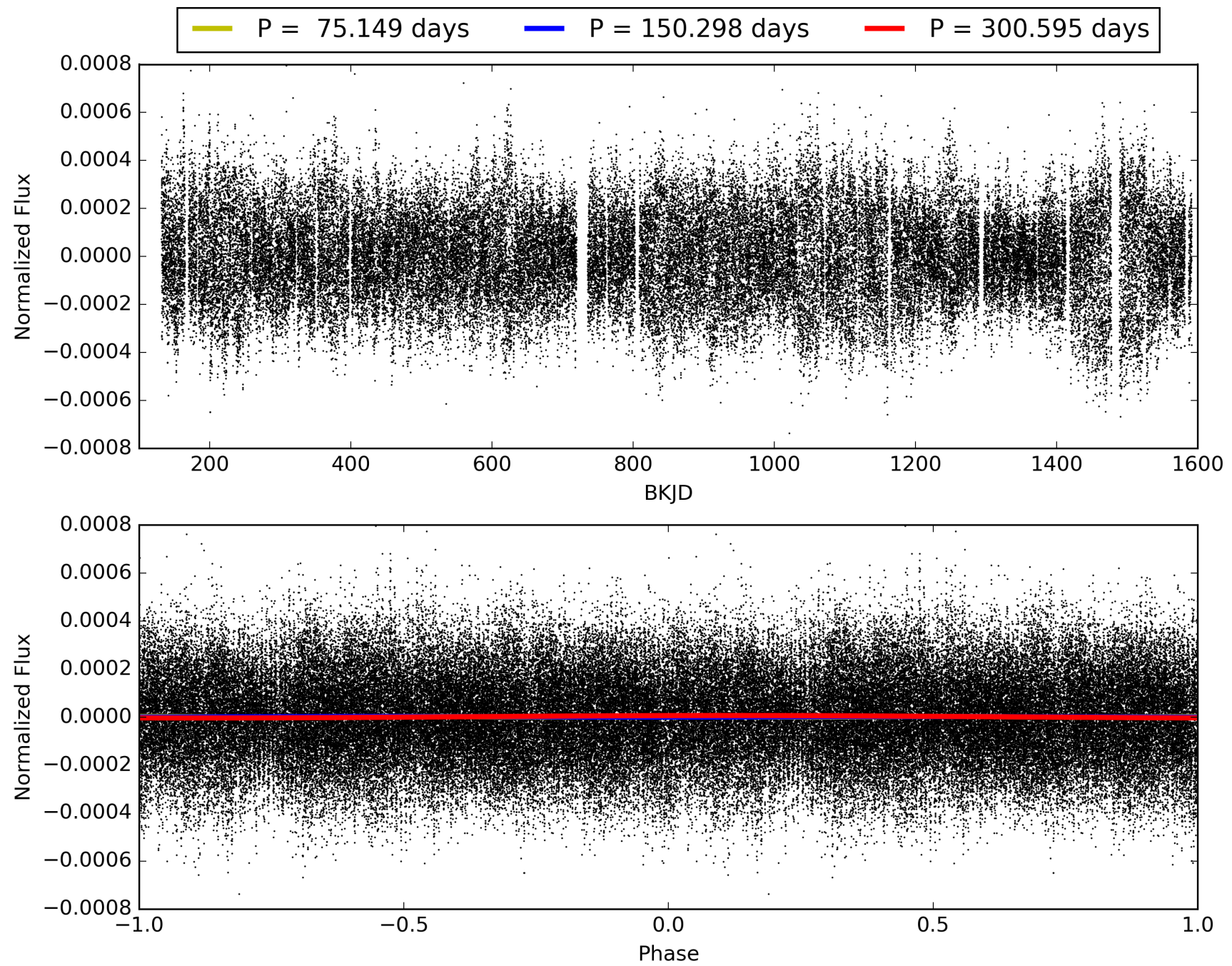
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:30:11 Z

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

TCE 004945266-07, PDC Light Curves

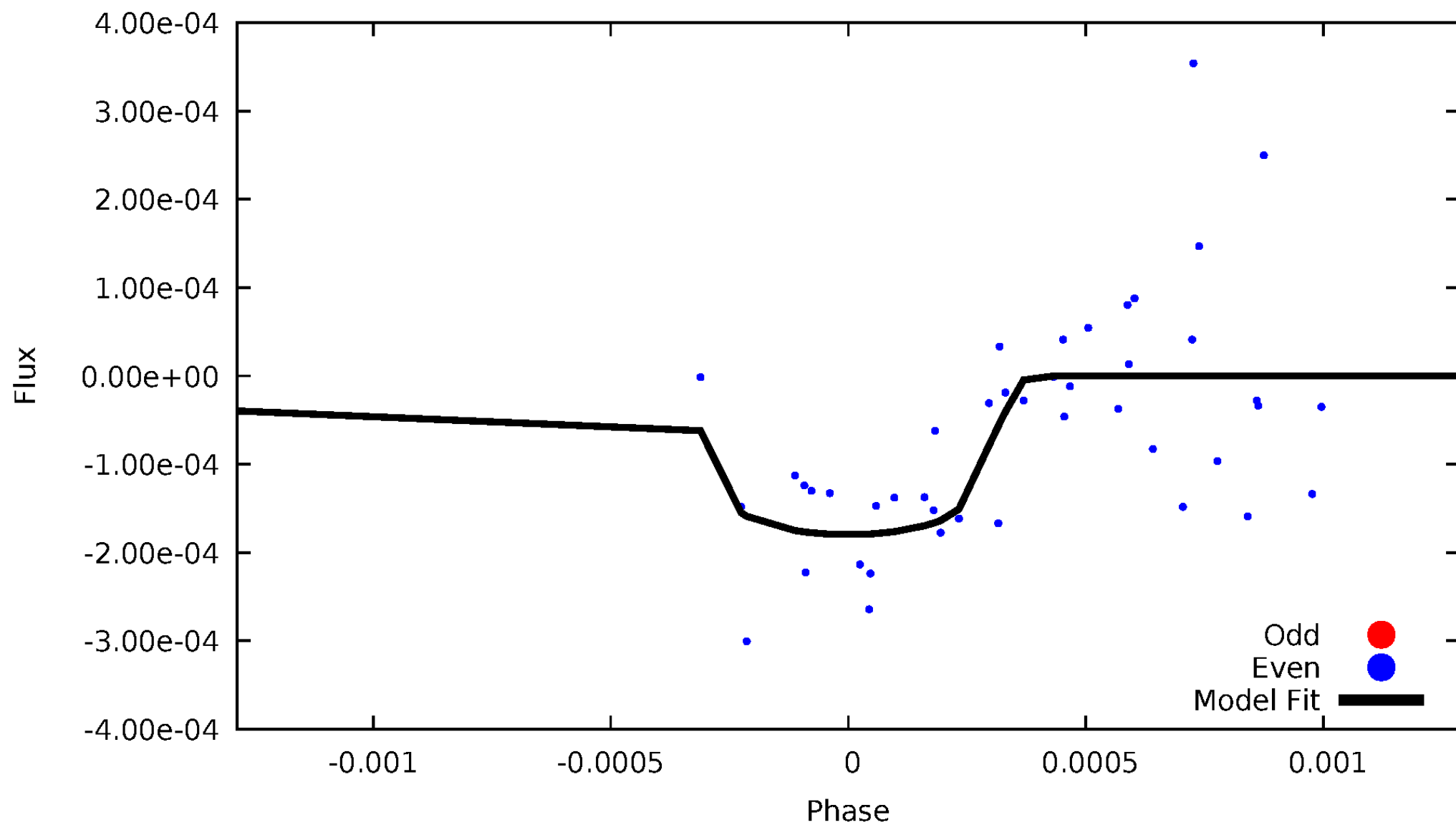


TCE 004945266-07



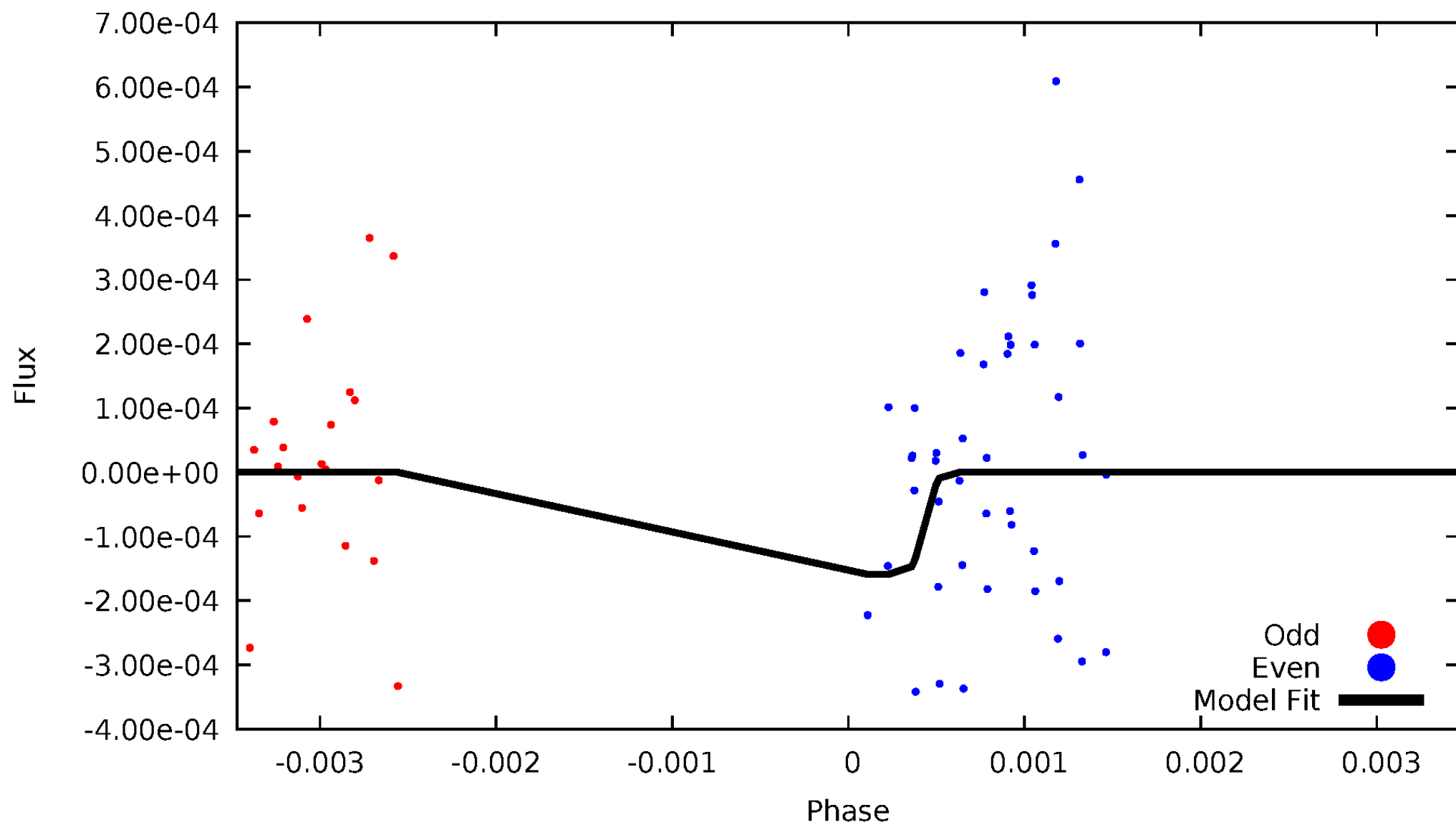
DV Odd/Even

TCE 004945266-07



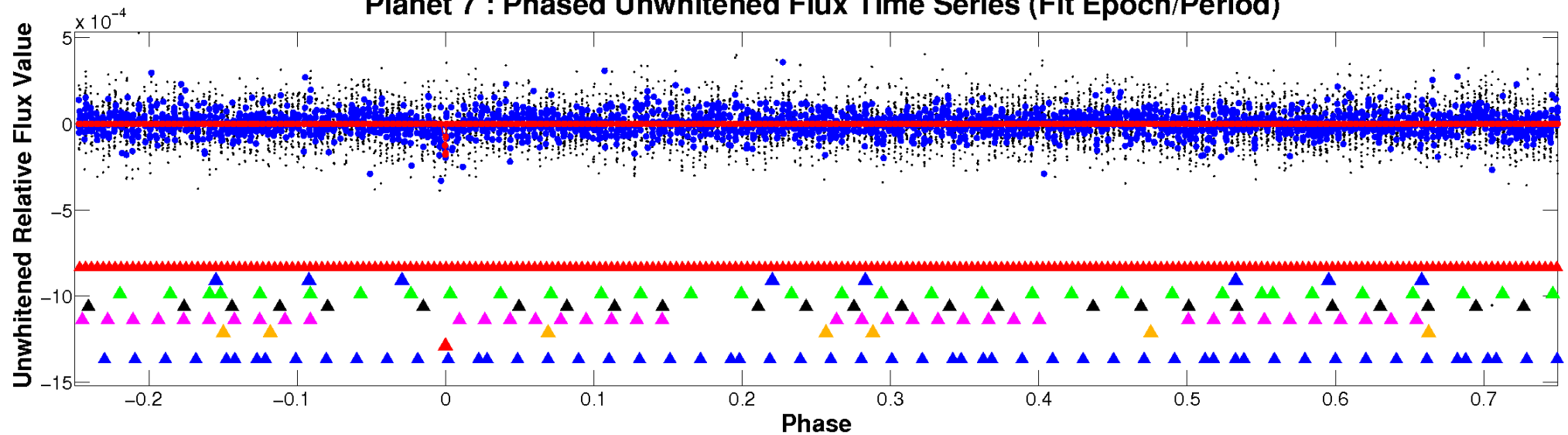
ALT Odd/Even

TCE 004945266-07

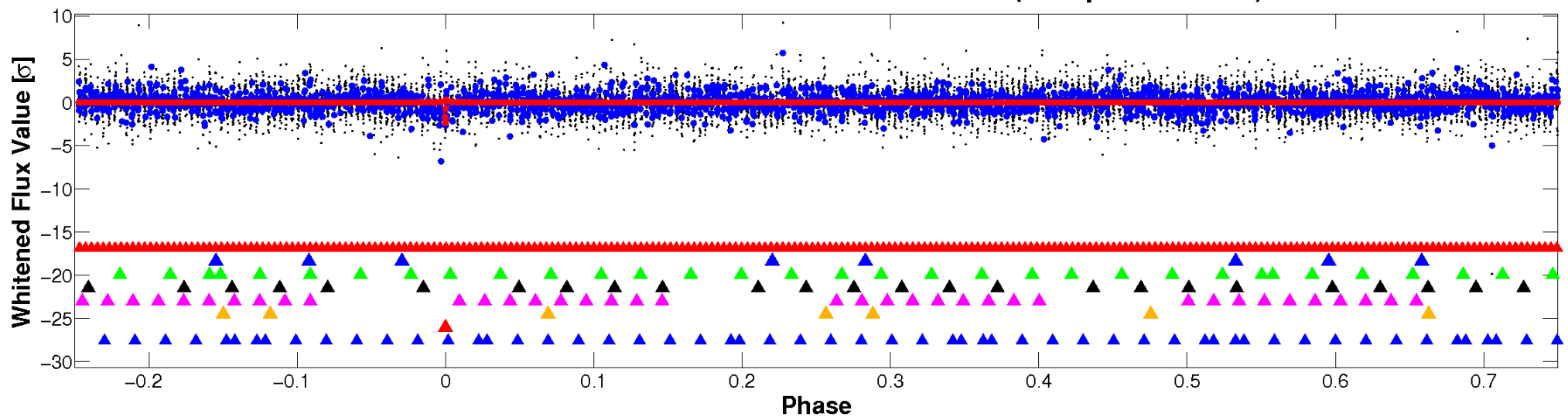


Non-Whitened Vs. Whitened Light Curve

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

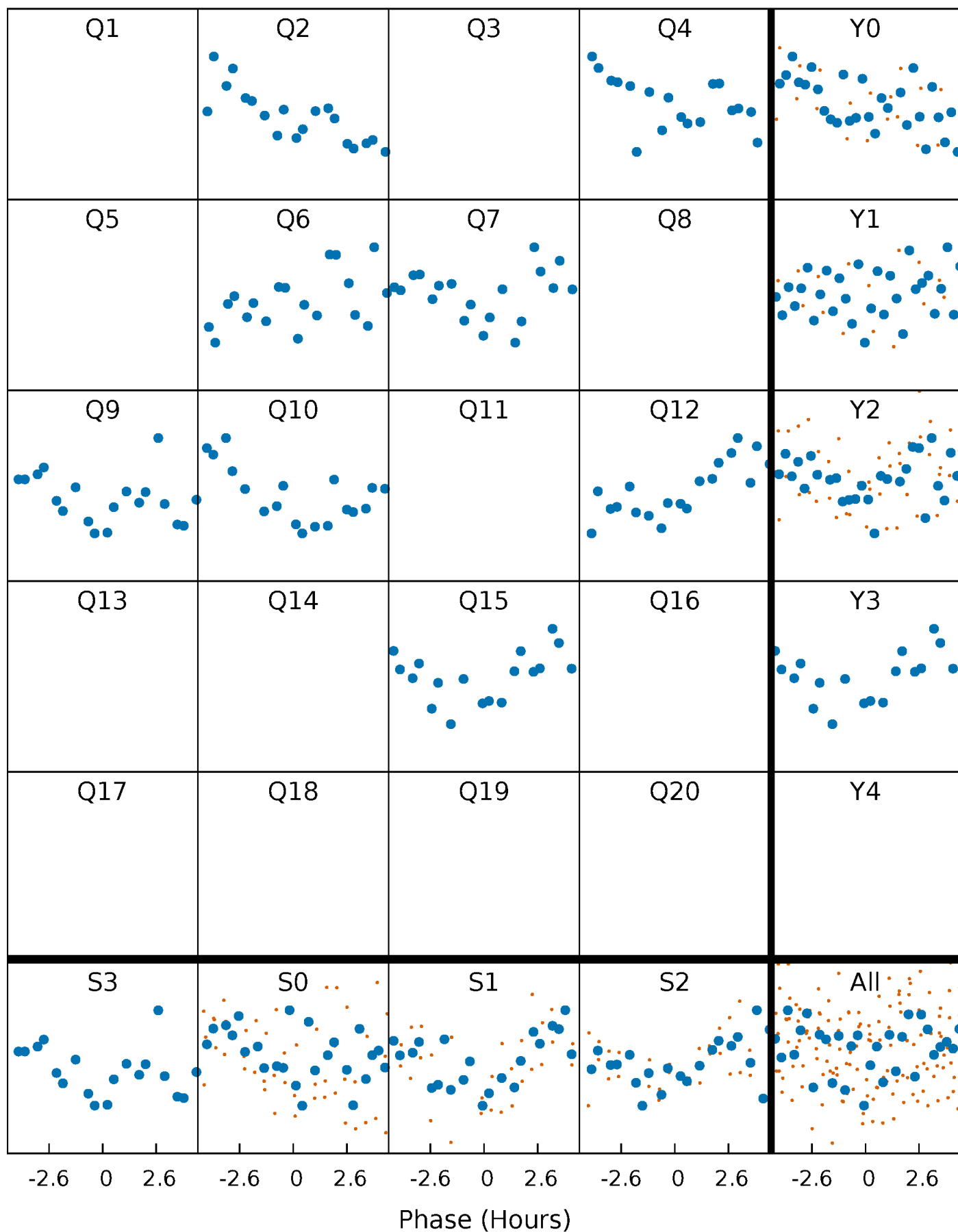


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



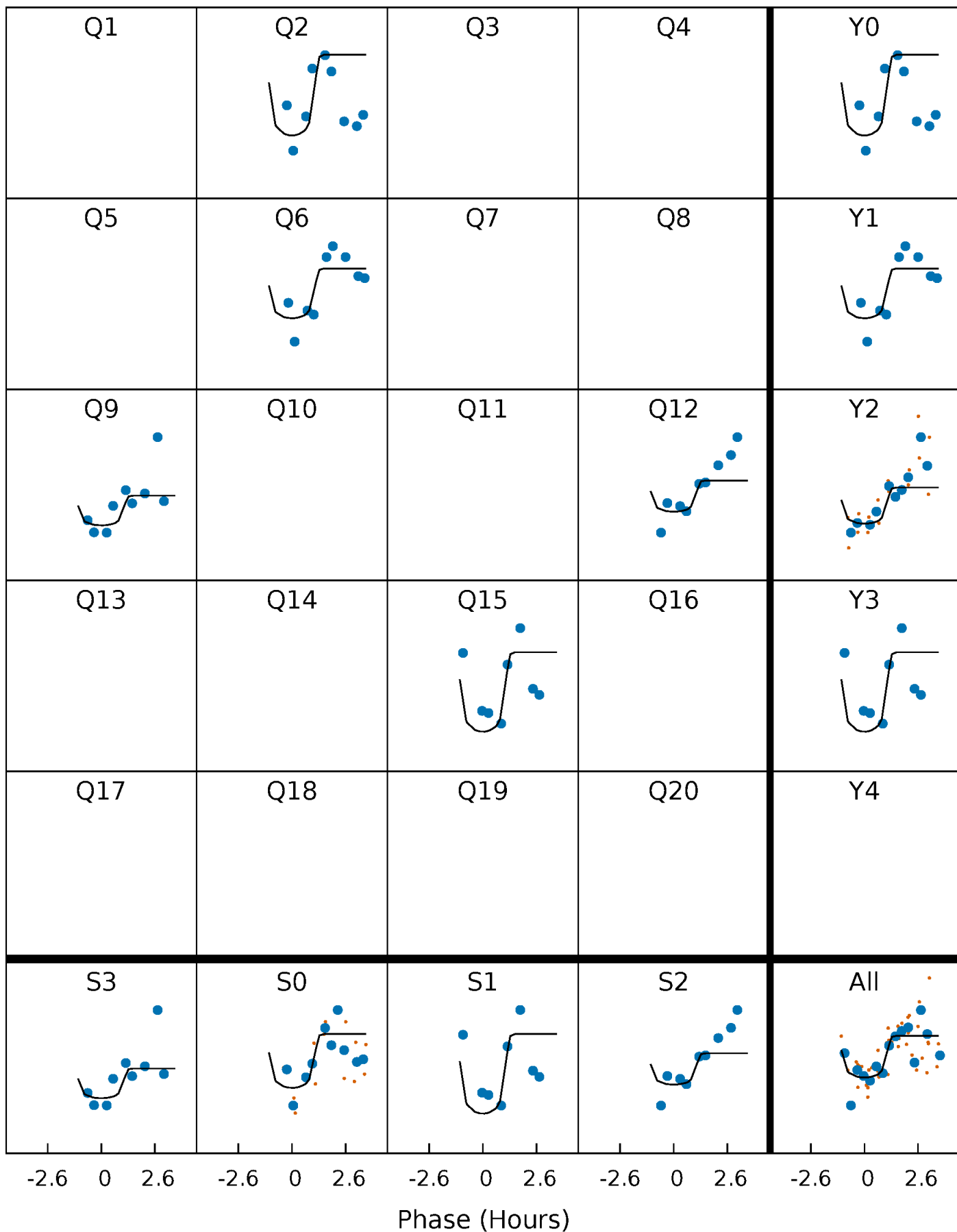
PDC Quarter-Phased Transit Curves

TCE 004945266-07 P=150.297522 Days $T_0=241.464117$ (BKJD)



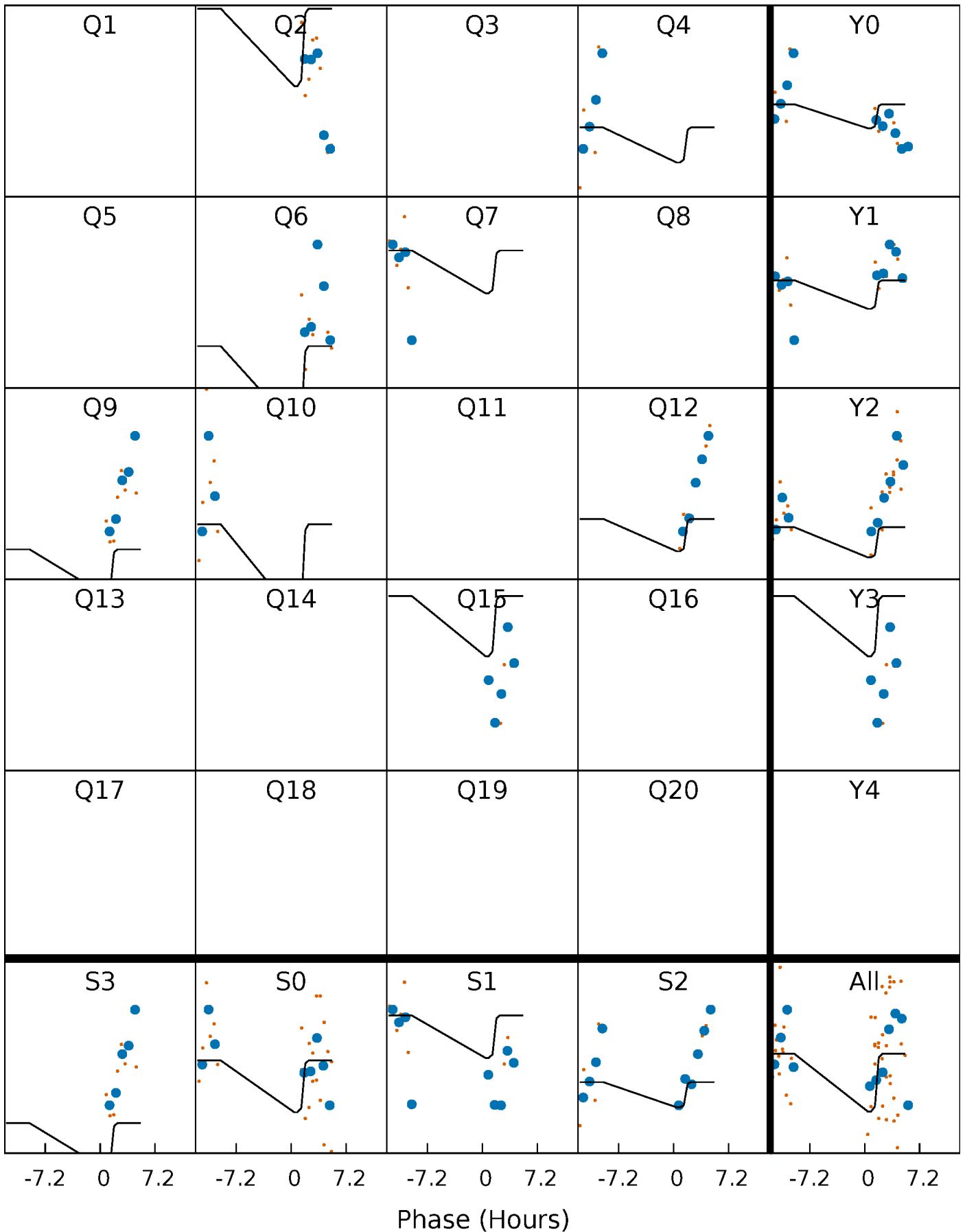
DV Quarter-Phased Transit Curves

TCE 004945266-07 P=150.297522 Days $T_0=241.464117$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

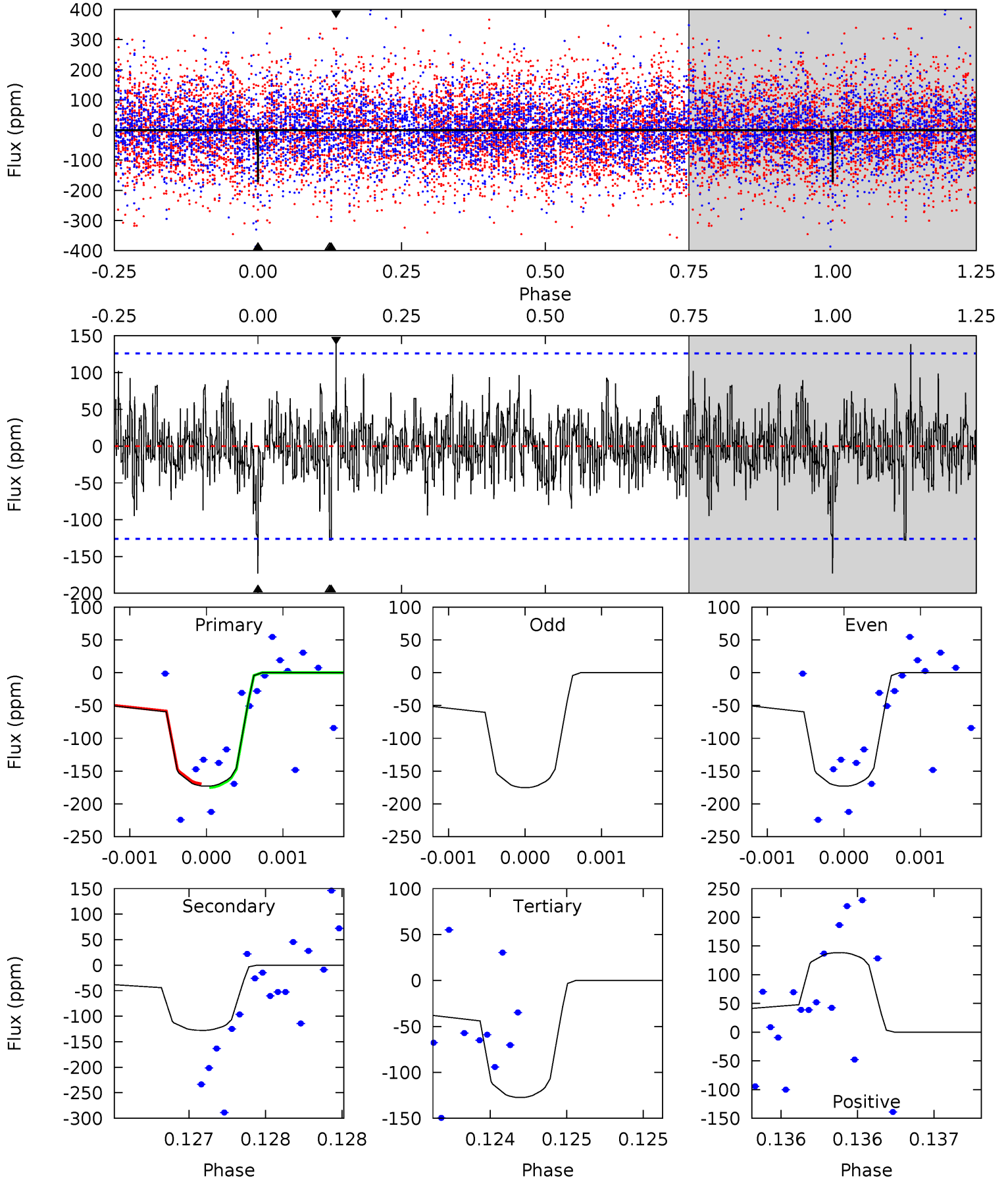
TCE 004945266-07 P=150.298751 Days $T_0=241.390999$ (BKJD)



DV Model-Shift Uniqueness Test

004945266-07, P = 150.297522 Days, E = 91.166595 Days

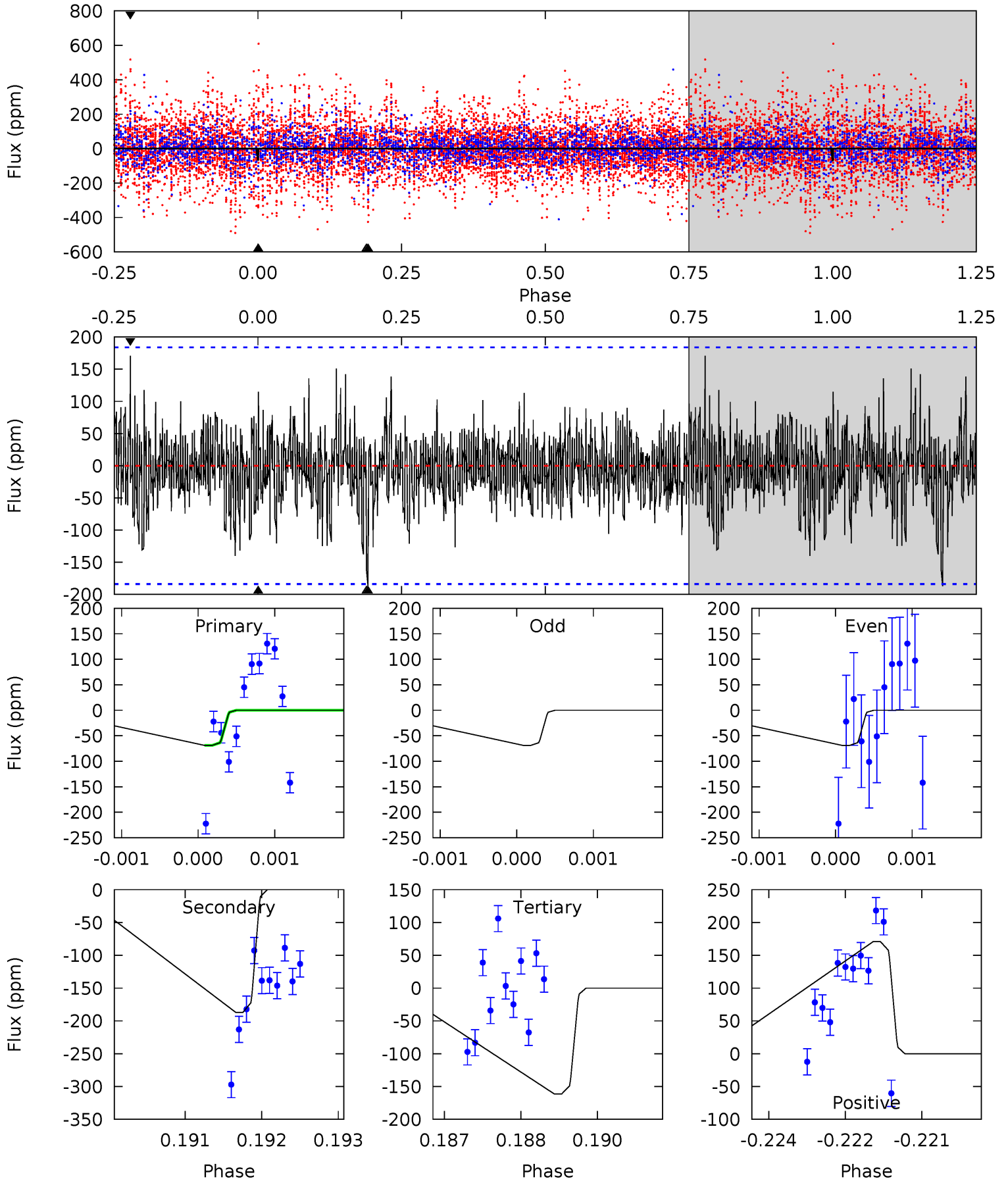
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.61	5.62	5.60	6.09	5.54	3.43	1.41	2.01	1.52	0.02	-0.47	0.06	1.02	0.44	0.12



Alt Model-Shift Uniqueness Test

004945266-07, P = 150.298751 Days, E = 91.092248 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.03	5.50	4.75	5.03	5.41	3.22	1.13	-2.72	-2.99	0.75	0.48	0.00	0.96	0.48	0



Stellar Parameters For KIC 004945266

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6777^{+71}_{-91}	$4.094^{+0.135}_{-0.135}$	$-0.060^{+0.150}_{-0.150}$	$1.767^{+0.355}_{-0.323}$	$1.422^{+0.116}_{-0.129}$	$0.363^{+0.234}_{-0.142}$
	+1%/-1%	+3%/-3%	+250%/-250%	+20%/-18%	+8%/-9%	+64%/-39%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 004945266-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-128 ± 23	$3.59^{+3.30}_{-2.40}$	705^{+38}_{-38}	5276^{+4634}_{-1189}	2080^{+18806}_{-1551}
Alt.	-187 ± 34	$3.66^{+3.60}_{-2.38}$	704^{+37}_{-34}	5656^{+5253}_{-1319}	2989^{+20679}_{-2217}

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 $A_{obs} \gg 1.0$

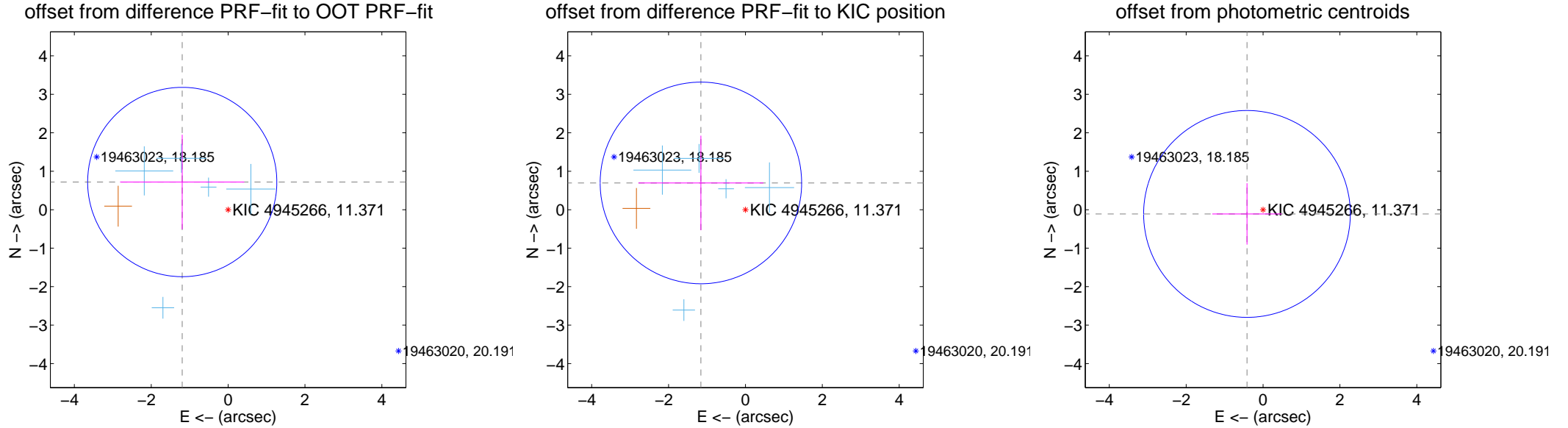
DV Centroid Data

Supplemental centroid analysis for 004945266-07. **Kepler magnitude: 11.37.** Transit SNR 9.33

There are 5 quarters with good PRF difference image offsets

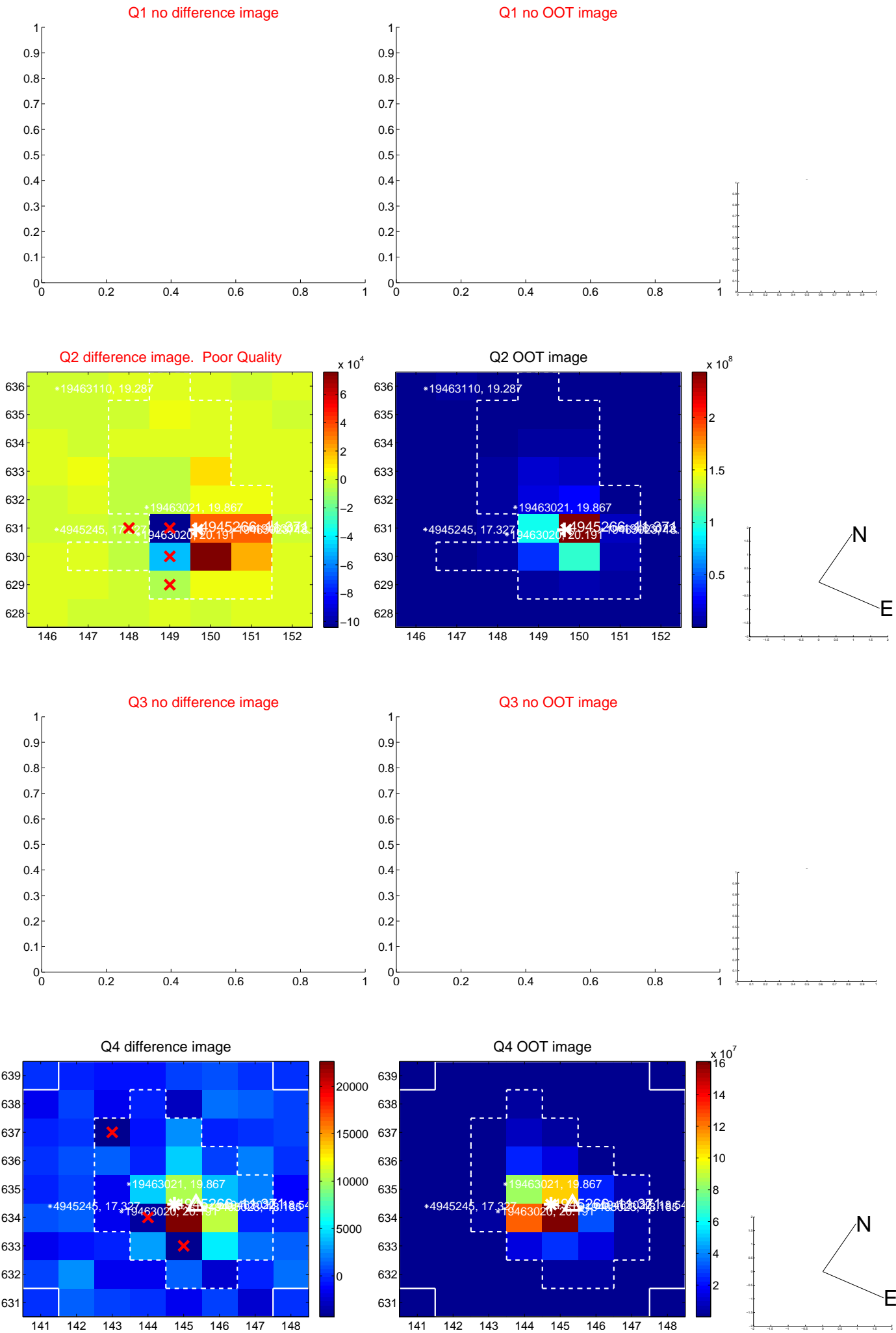
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.394 ± 0.820	1.70	1.193 ± 1.615	0.720 ± 1.229
PRF-fit source offset from KIC position	1.351 ± 0.873	1.55	1.159 ± 1.625	0.696 ± 1.229
photometric centroid source offset	0.43 ± 0.90	0.48	0.42 ± 0.90	-0.11 ± 0.80

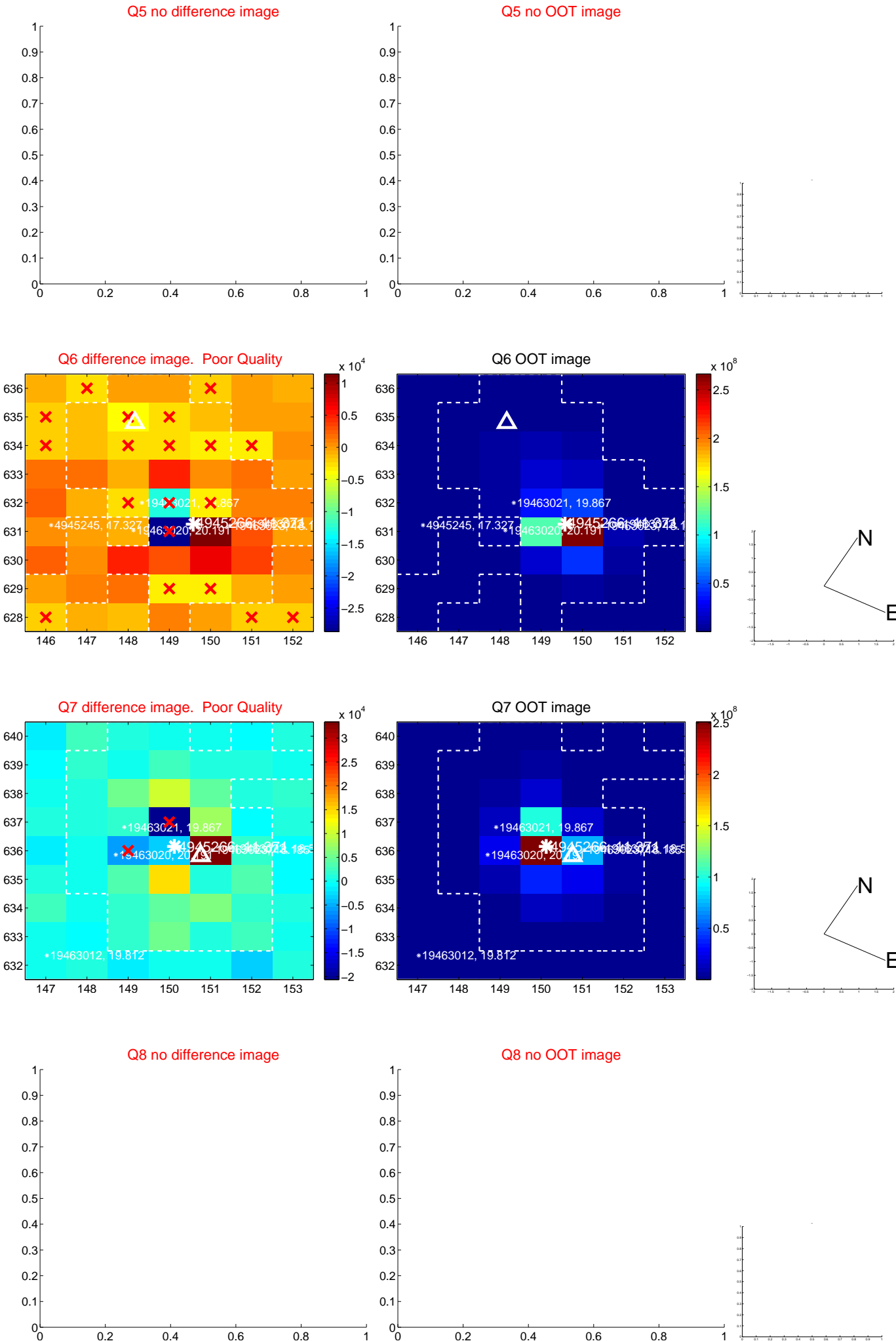


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

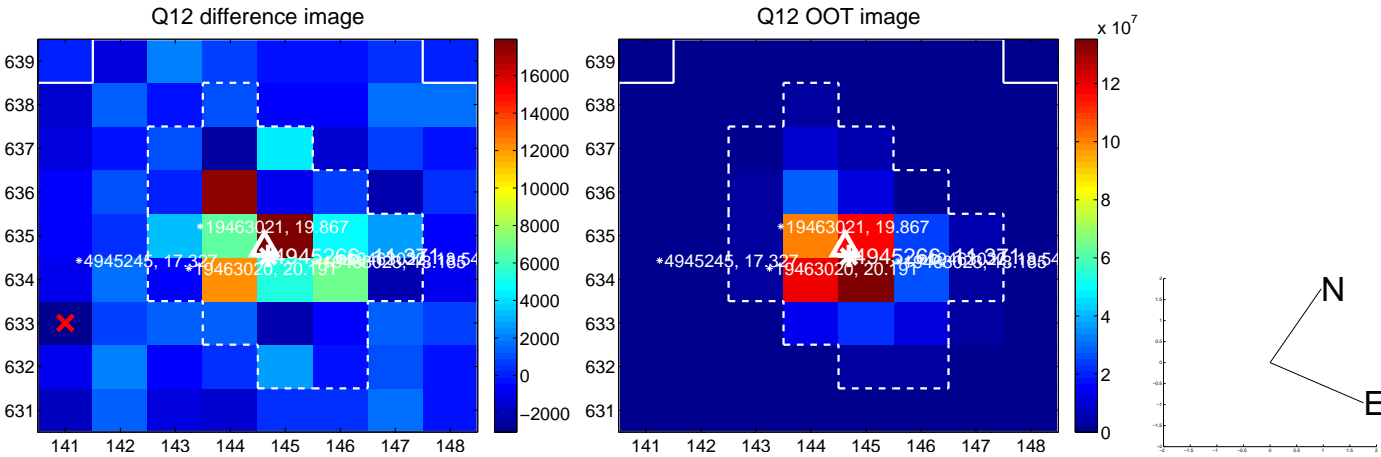
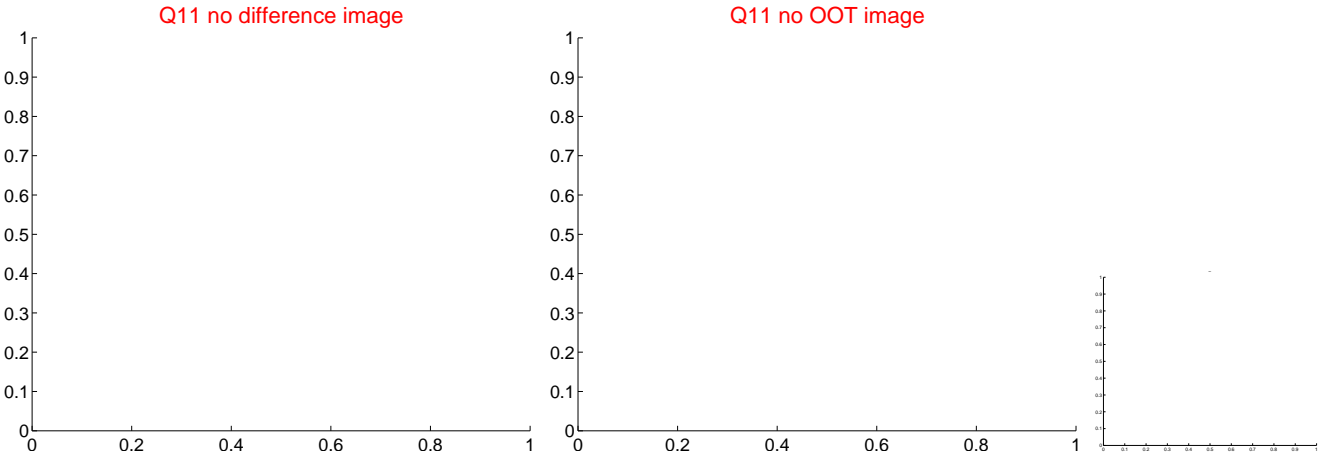
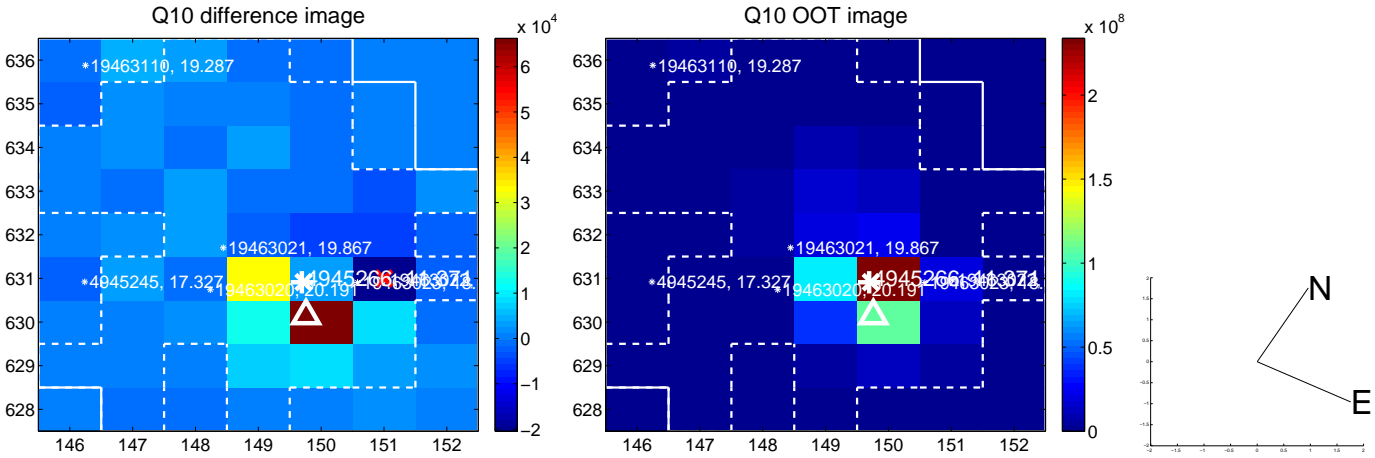
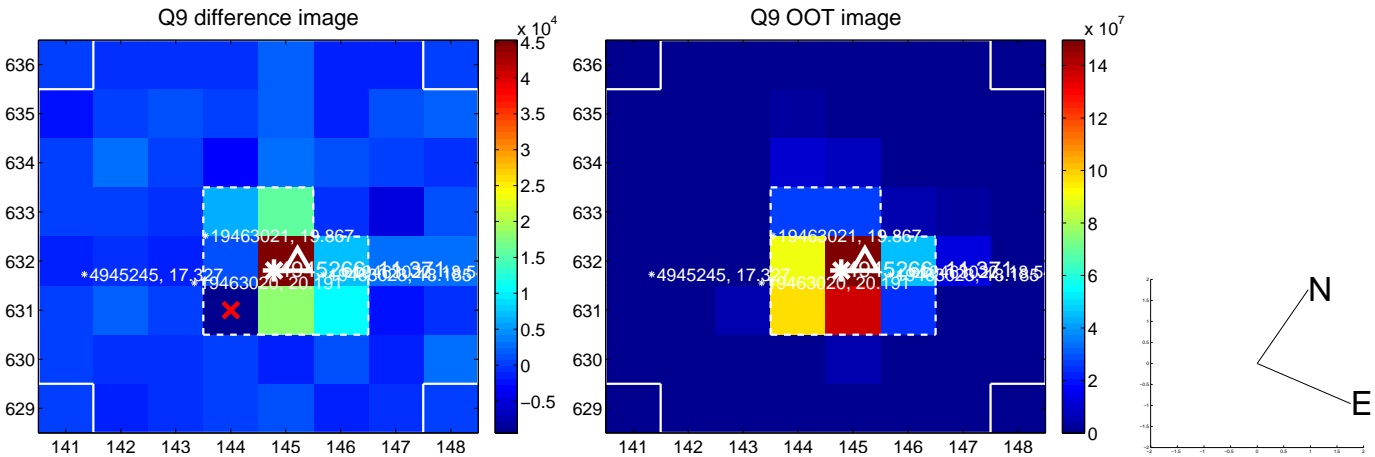
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



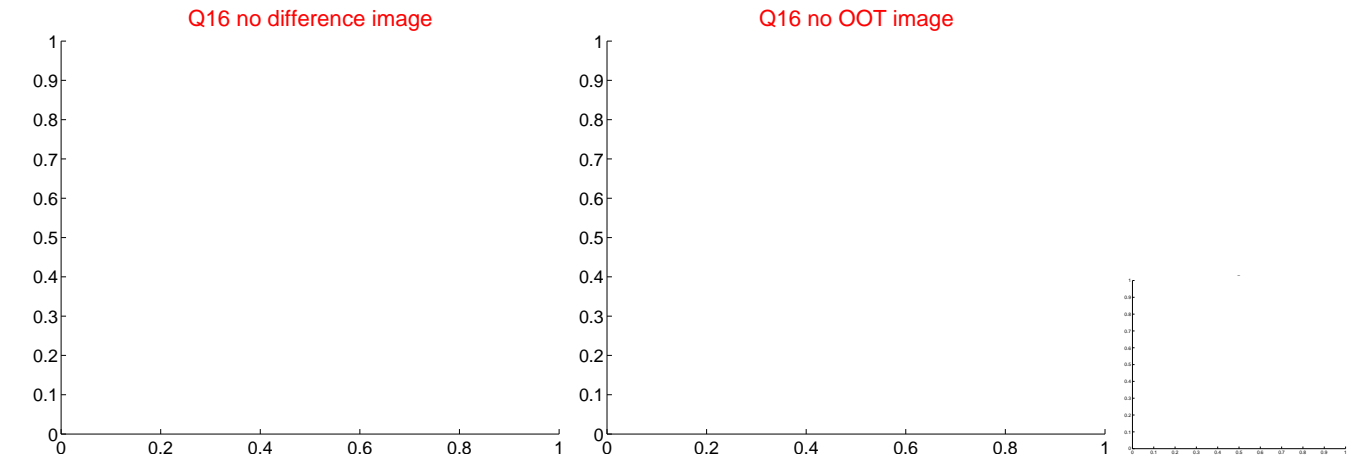
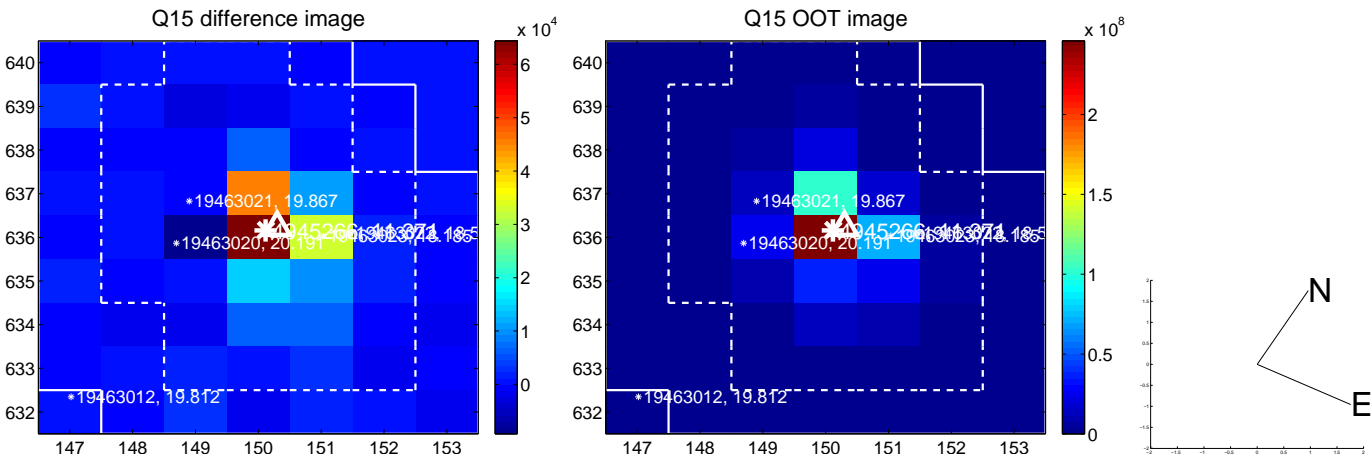
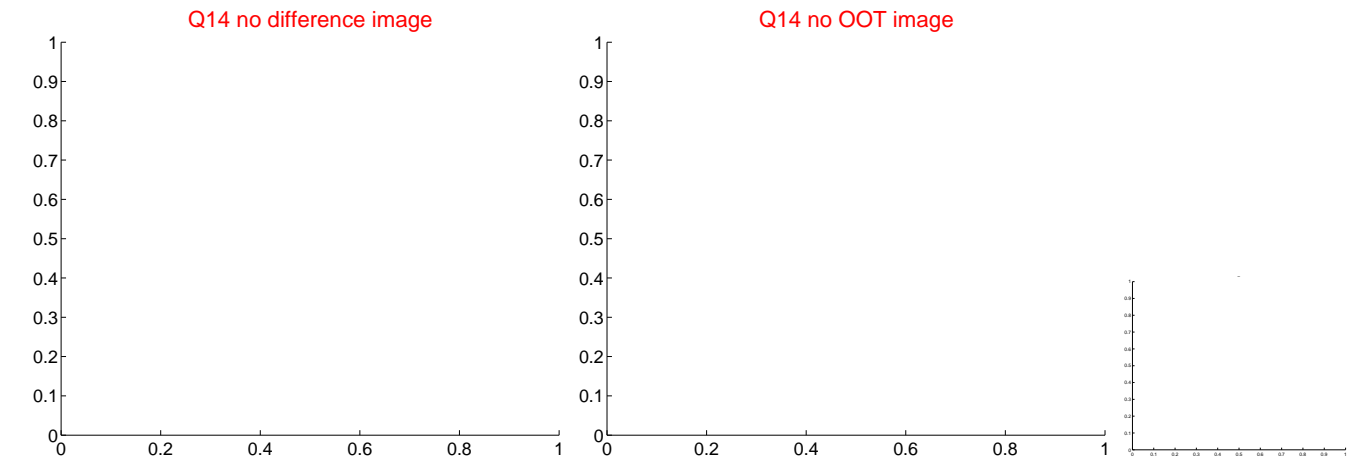
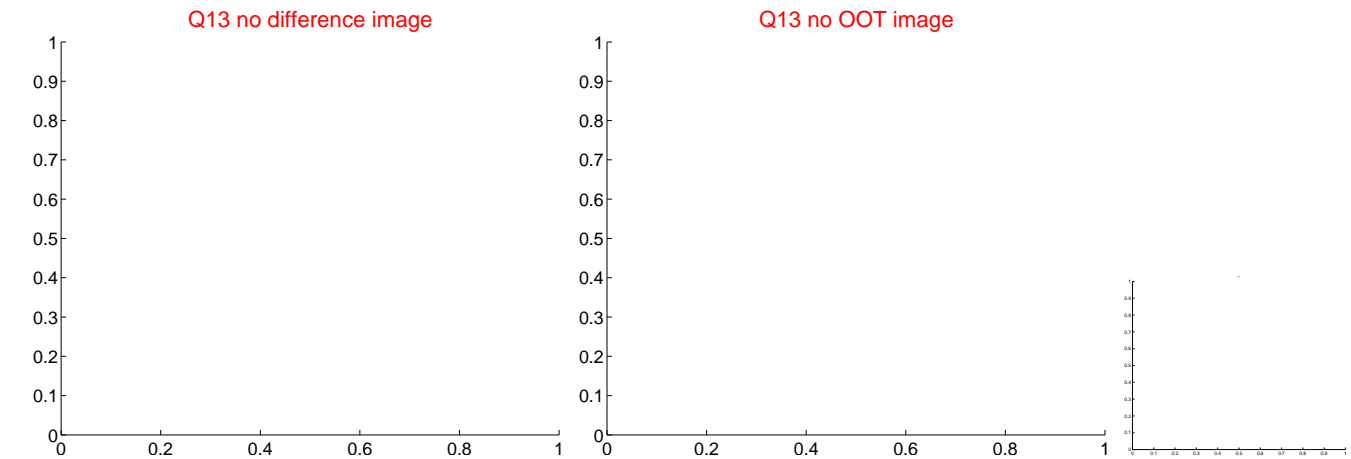
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



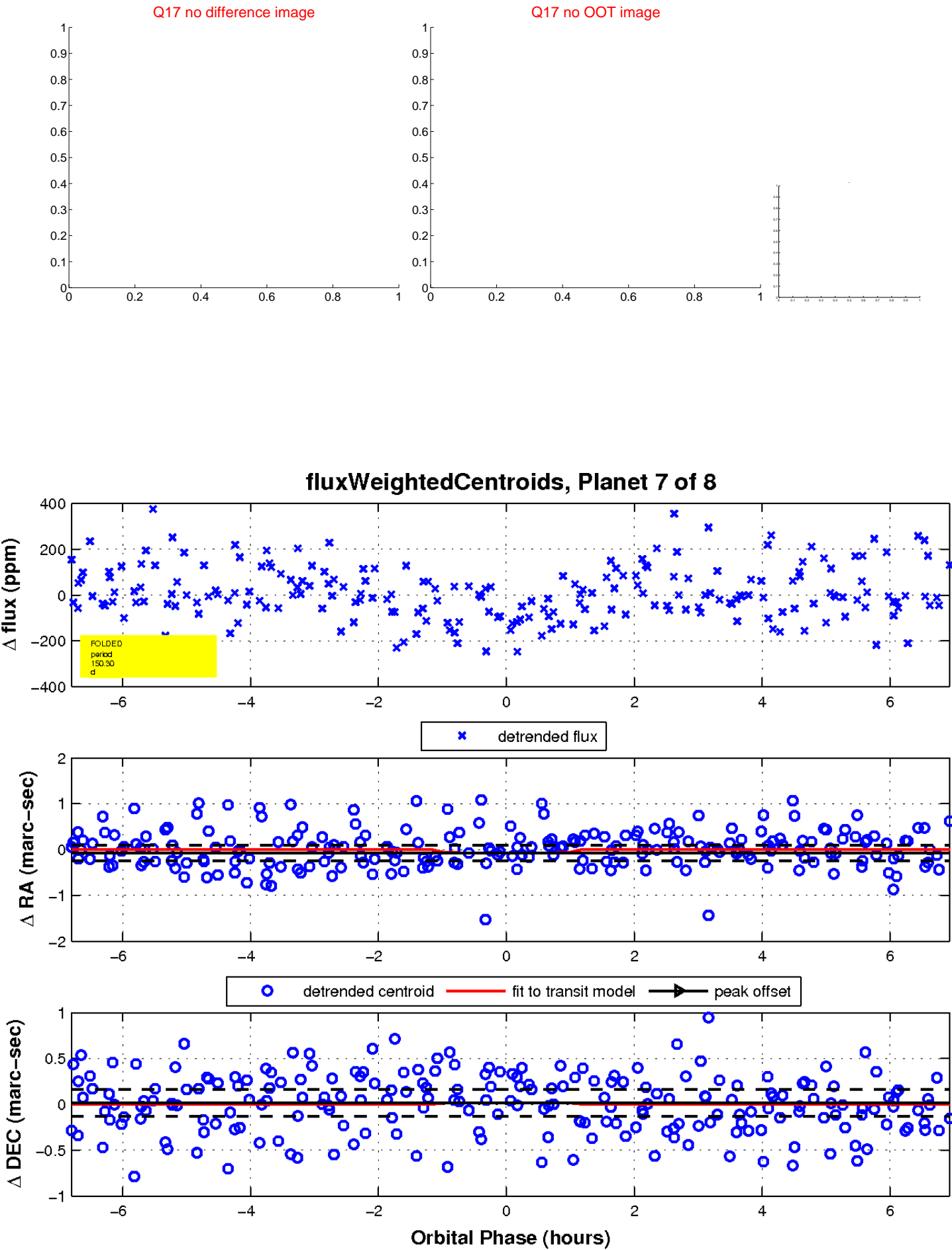
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

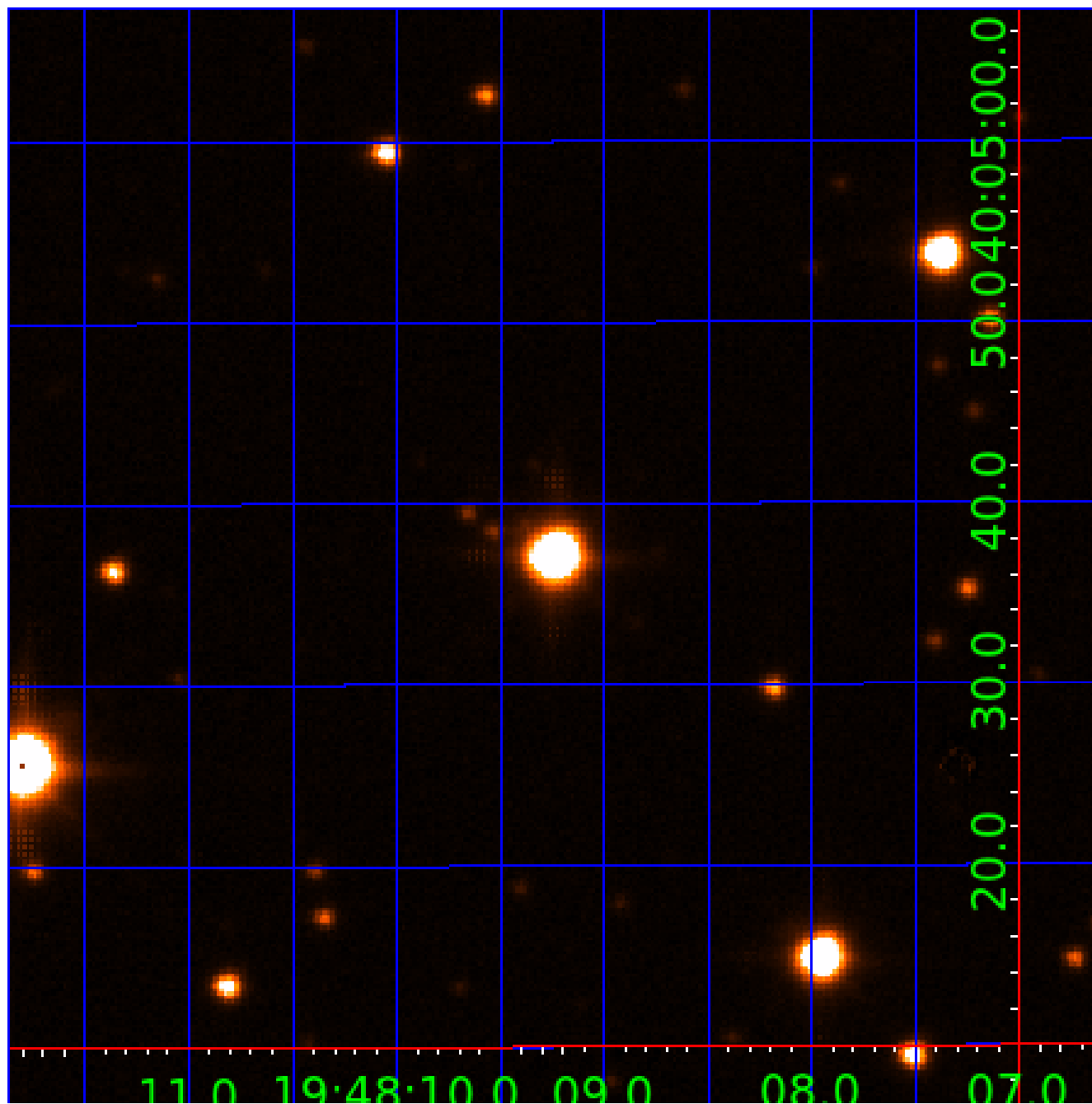


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 004945266

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})
004945266-01	OBS	No	1.197557	131.957025	3.7	7.974	8.7	2.6	1.77	6777	0.36	9611.85
004945266-02	OBS	No	197.254787	190.095347	218.2	4.735	12.6	9.4	1.77	6777	3.11	10.64
004945266-03	OBS	No	43.670555	173.893348	211.0	1.636	11.0	10.5	1.77	6777	2.97	79.48
004945266-04	OBS	No	58.180105	142.246997	118.0	6.605	9.6	8.6	1.77	6777	2.21	54.22
004945266-05	OBS	No	38.216314	166.445720	111.5	7.070	9.2	9.3	1.77	6777	2.06	94.96
004945266-06	OBS	No	239.524693	134.479079	196.6	26.074	10.3	10.2	1.77	6777	2.73	8.22
004945266-07	OBS	No	150.297522	241.464117	179.6	2.319	9.8	9.3	1.77	6777	2.69	15.30
004945266-08	OBS	No	25.564376	143.427468	169.2	1.330	10.0	10.1	1.77	6777	2.33	162.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004945266-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
004945266-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_SATURATED
004945266-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
004945266-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
004945266-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
004945266-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
004945266-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
004945266-08	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_SATURATED

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

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

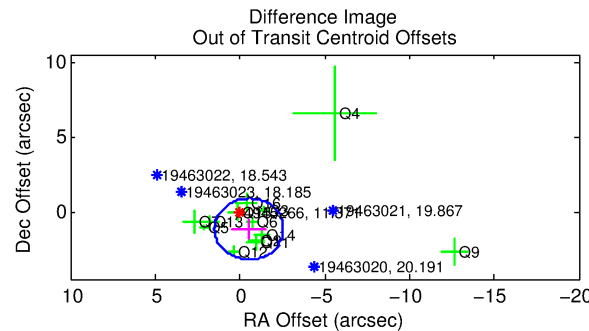
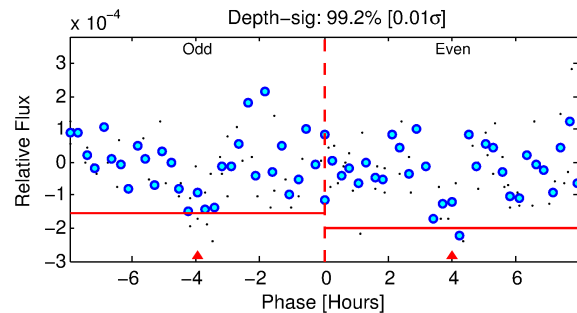
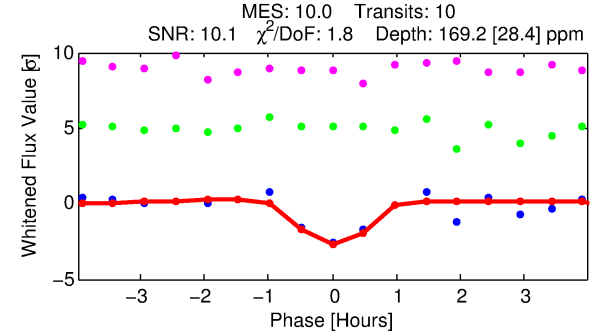
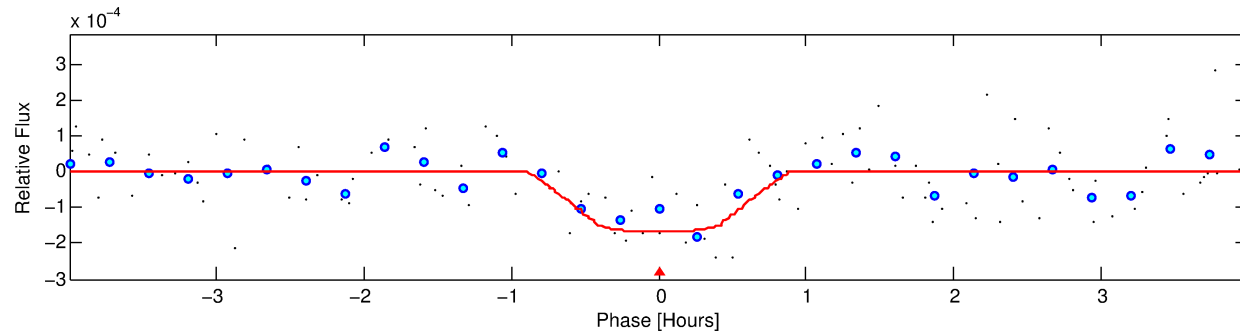
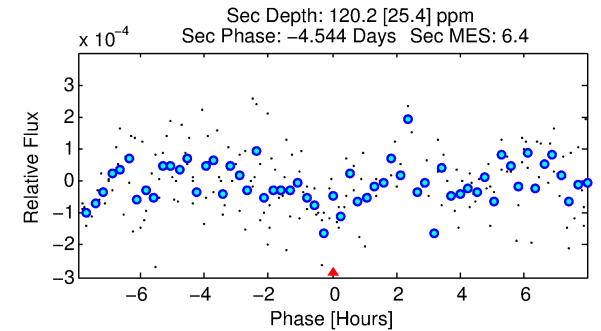
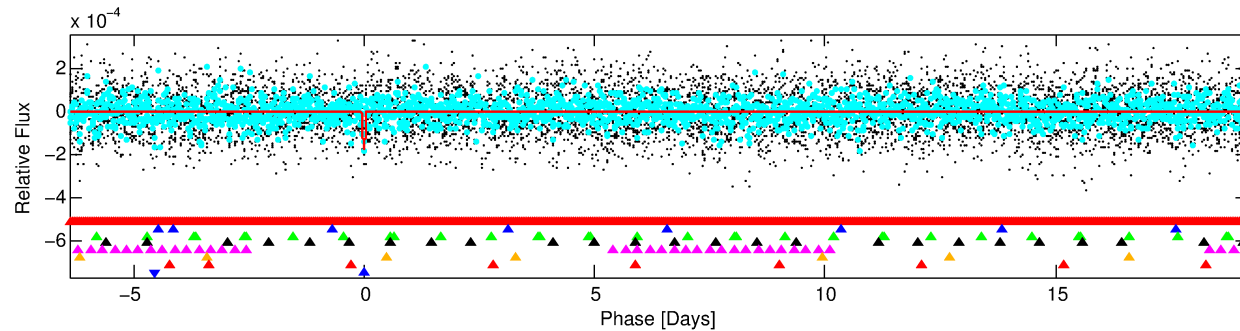
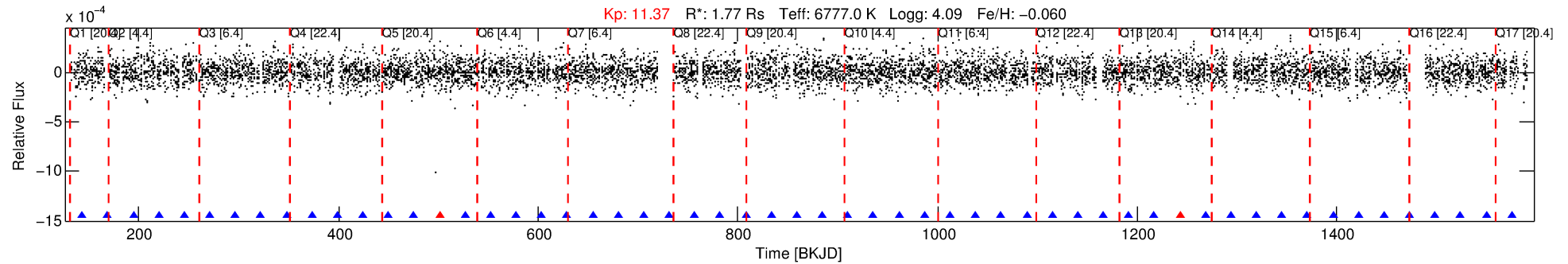
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004945266-08

No Significant Match Found

DV One-Page Summary

KIC: 4945266 Candidate: 8 of 8 Period: 25.564 d



DV Fit Results:

Period = 25.56438 [0.00022] d
Epoch = 143.4275 [0.0075] BKJD
Rp/R* = 0.0121 [0.0339]
a/R* = 147.86 [2225.80]
b = 0.10 [148.91]
Seff = 162.31 [40.99]
Teq = 910 [57] K
Rp = 2.33 [6.54] Re
a = 0.1907 [0.0323] AU
Ag = 443.49 [2491.39] [0.18σ]
Teffp = 6458 [9061] K [0.61σ]

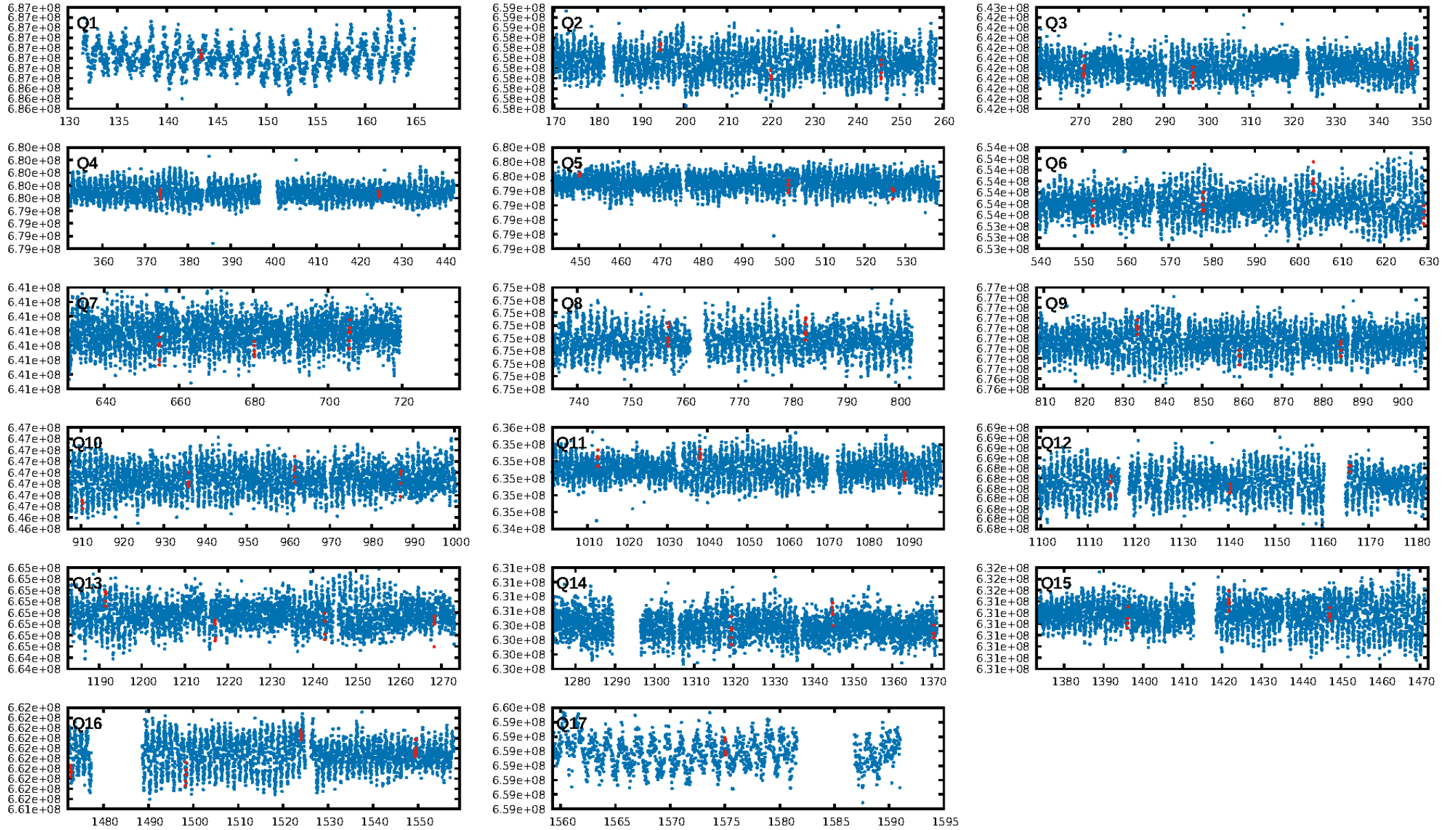
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [72.34σ]
LongPeriod-sig: 100.0% [42.21σ]
ModelChiSquare2-sig: 3.3%
ModelChiSquareGof-sig: 85.9%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.78 [7/9]
GhostDiagnostic-chr: 1.453
Centroid-sig: 48.4%
Centroid-so: 0.356 arcsec [0.83σ]
OotOffset-rm: 1.275 arcsec [1.88σ]
KicOffset-rm: 1.346 arcsec [1.88σ]
OotOffset-st: 3/4/3/3 [13]
KicOffset-st: 3/4/3/3 [13]
DiffImageQuality-fgm: 0.54 [7/13]
DiffImageOverlap-fno: 0.71 [12/17]

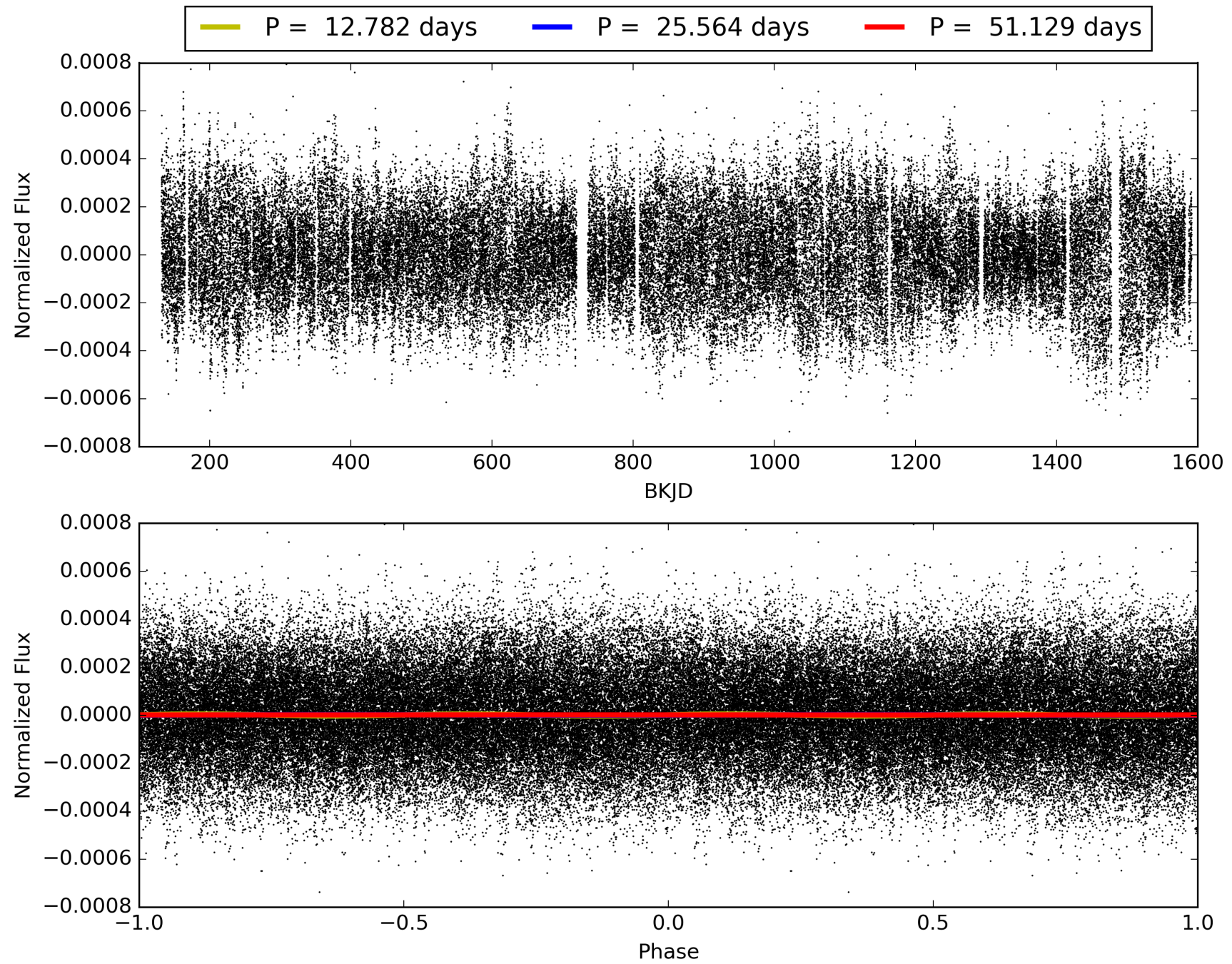
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:30:14 Z

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

TCE 004945266-08, PDC Light Curves

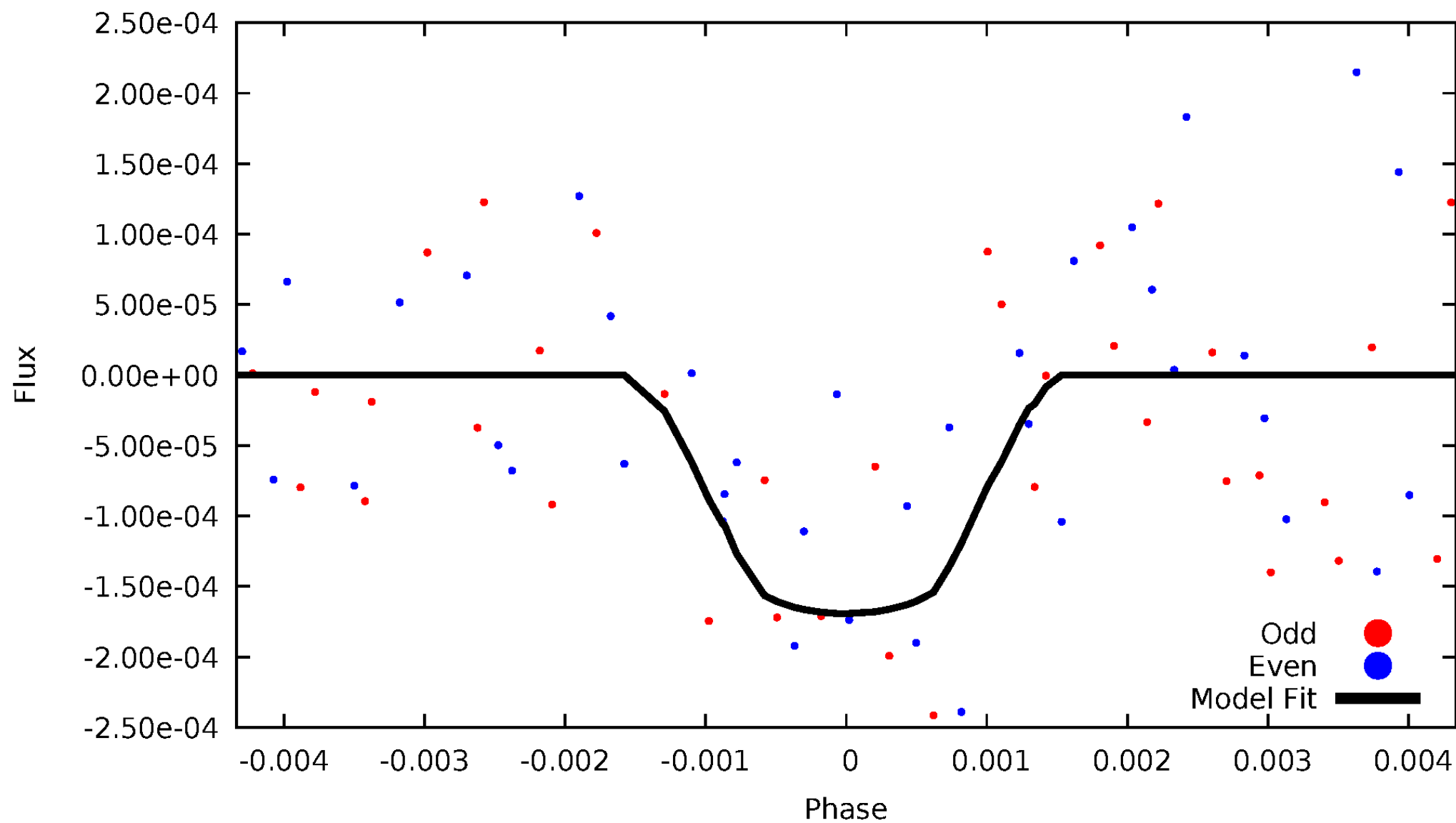


TCE 004945266-08



DV Odd/Even

TCE 004945266-08

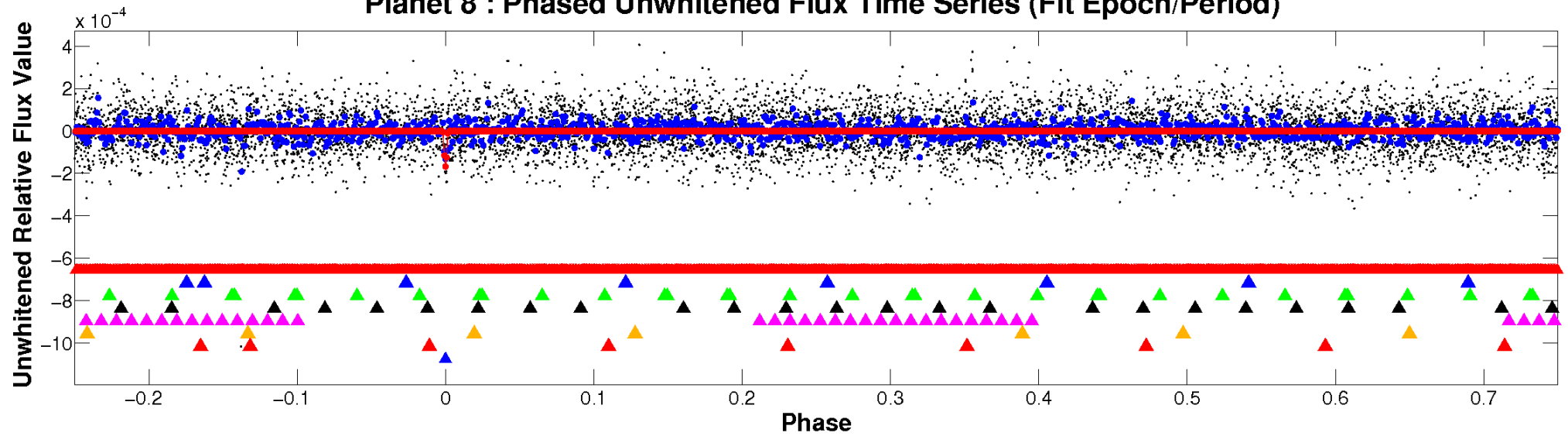


ALT Odd/Even

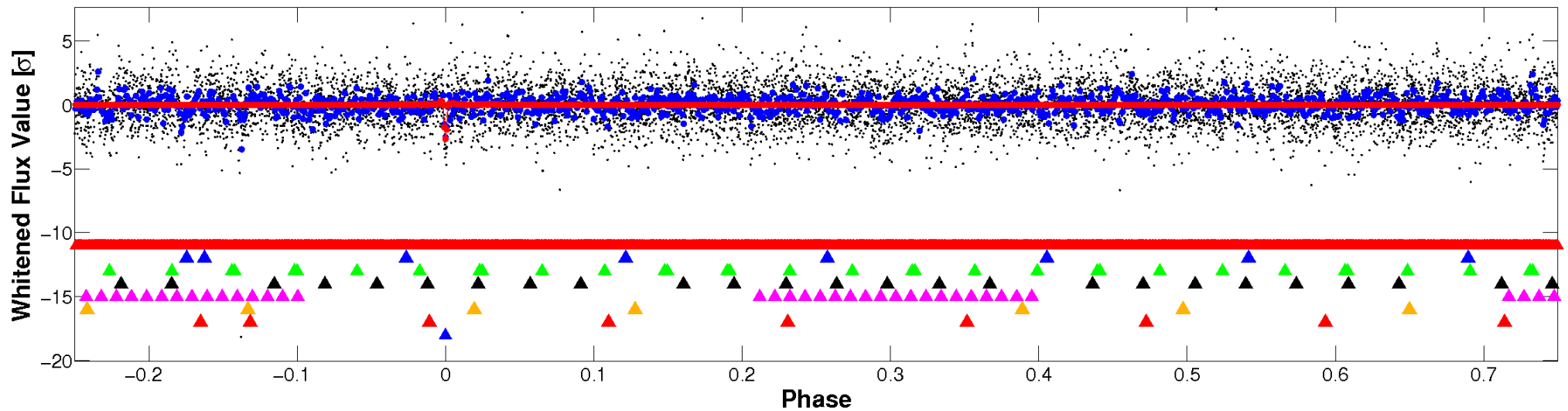
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 8 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

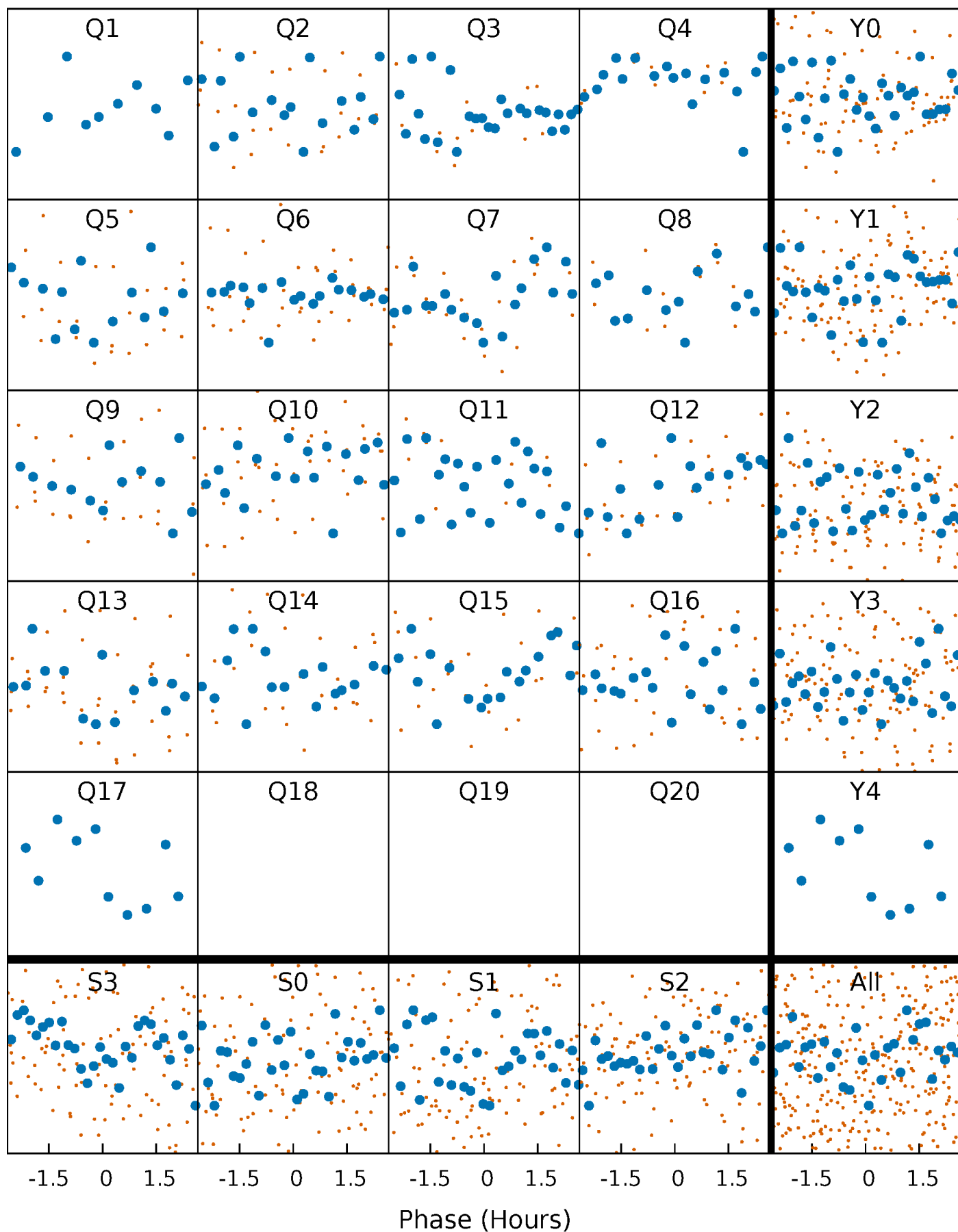


Planet 8 : Phased Whitened Flux Time Series (Fit Epoch/Period)



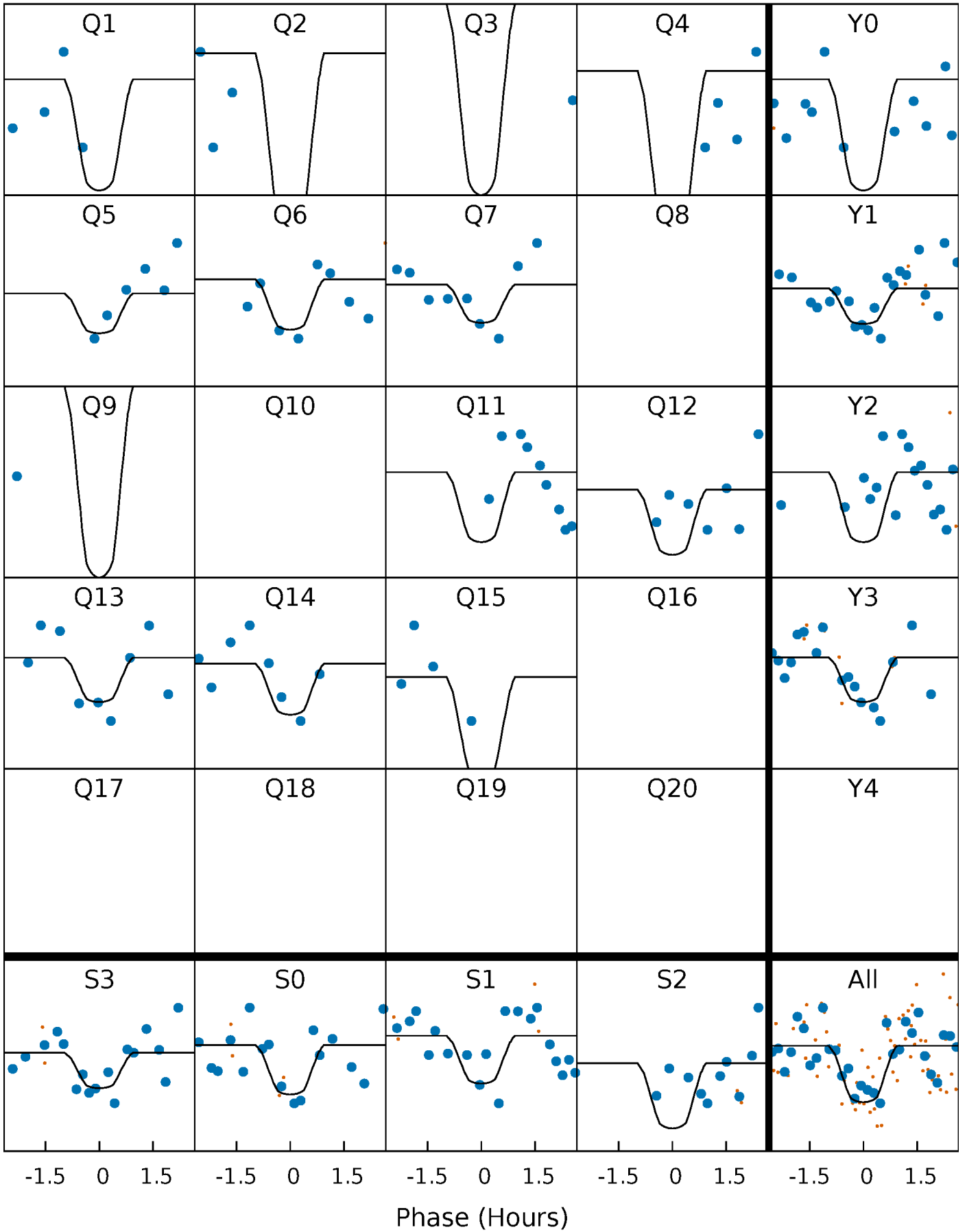
PDC Quarter-Phased Transit Curves

TCE 004945266-08 P= 25.564376 Days $T_0=143.427468$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 004945266-08 P= 25.564376 Days $T_0=143.427468$ (BKJD)

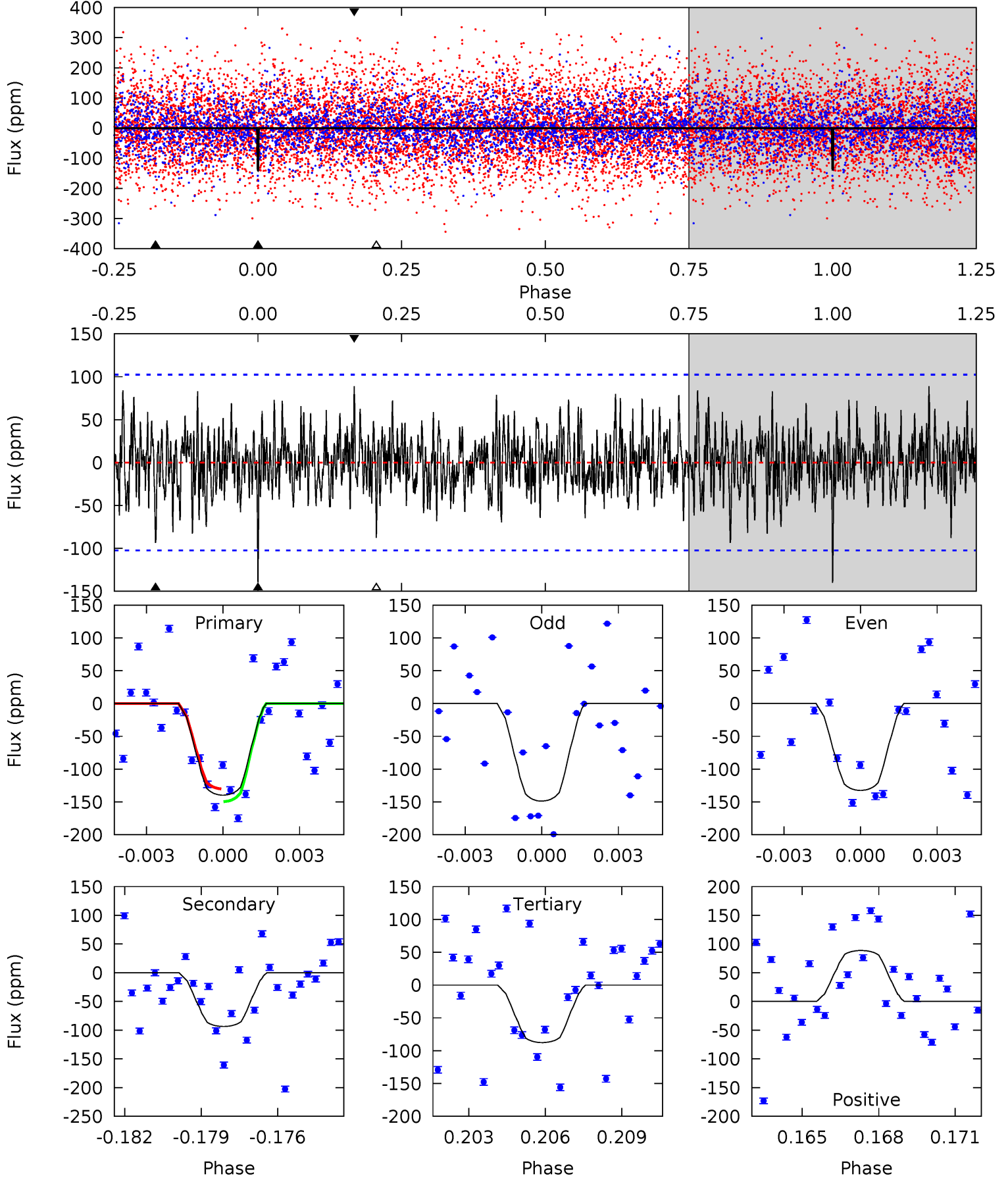


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

004945266-08, $P = 25.564376$ Days, $E = 117.863092$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.20	4.82	4.51	4.57	5.27	3.00	1.43	2.68	2.63	0.30	0.24	0.42	0.93	0.39	0.50



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 004945266

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6777^{+71}_{-91}	$4.094^{+0.135}_{-0.135}$	$-0.060^{+0.150}_{-0.150}$	$1.767^{+0.355}_{-0.323}$	$1.422^{+0.116}_{-0.129}$	$0.363^{+0.234}_{-0.142}$
	+1%/-1%	+3%/-3%	+250%/-250%	+20%/-18%	+8%/-9%	+64%/-39%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 004945266-08 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-94 ± 19	$4.80^{+5.33}_{-3.15}$	1276^{+62}_{-62}	4385^{+2905}_{-971}	77^{+682}_{-59}
Alt.	N/A	N/A	N/A	N/A	N/A

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

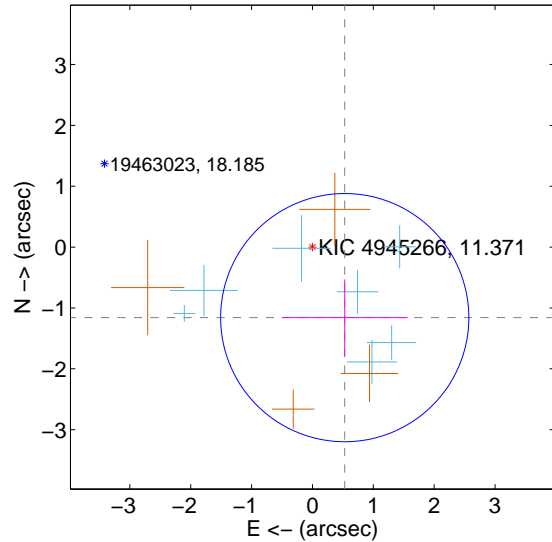
Supplemental centroid analysis for 004945266-08. **Kepler magnitude: 11.37.** Transit SNR 10.06

There are 7 quarters with good PRF difference image offsets

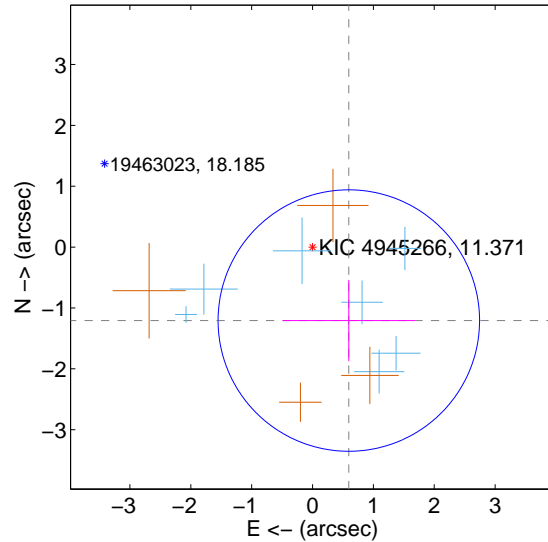
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.275 ± 0.680	1.88	-0.531 ± 1.033	-1.159 ± 0.628
PRF-fit source offset from KIC position	1.346 ± 0.716	1.88	-0.596 ± 1.085	-1.207 ± 0.669
photometric centroid source offset	0.36 ± 0.43	0.83	-0.12 ± 0.48	-0.34 ± 0.42

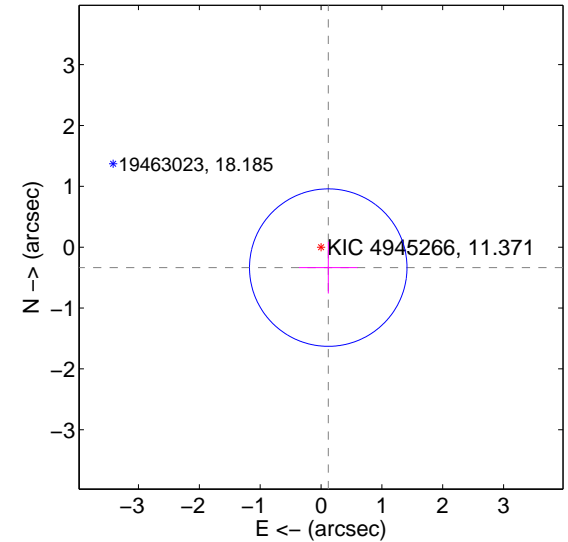
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

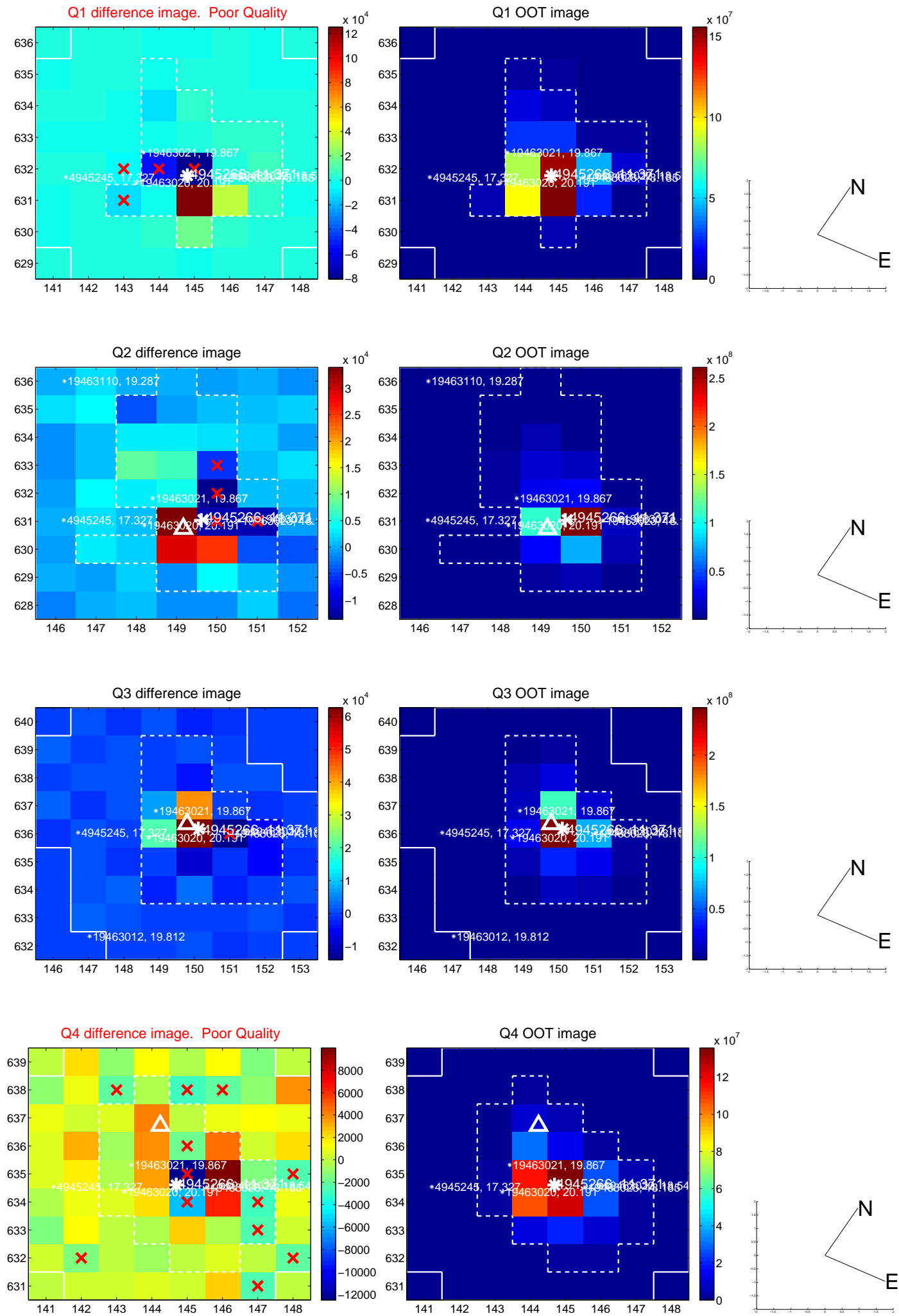


offset from photometric centroids

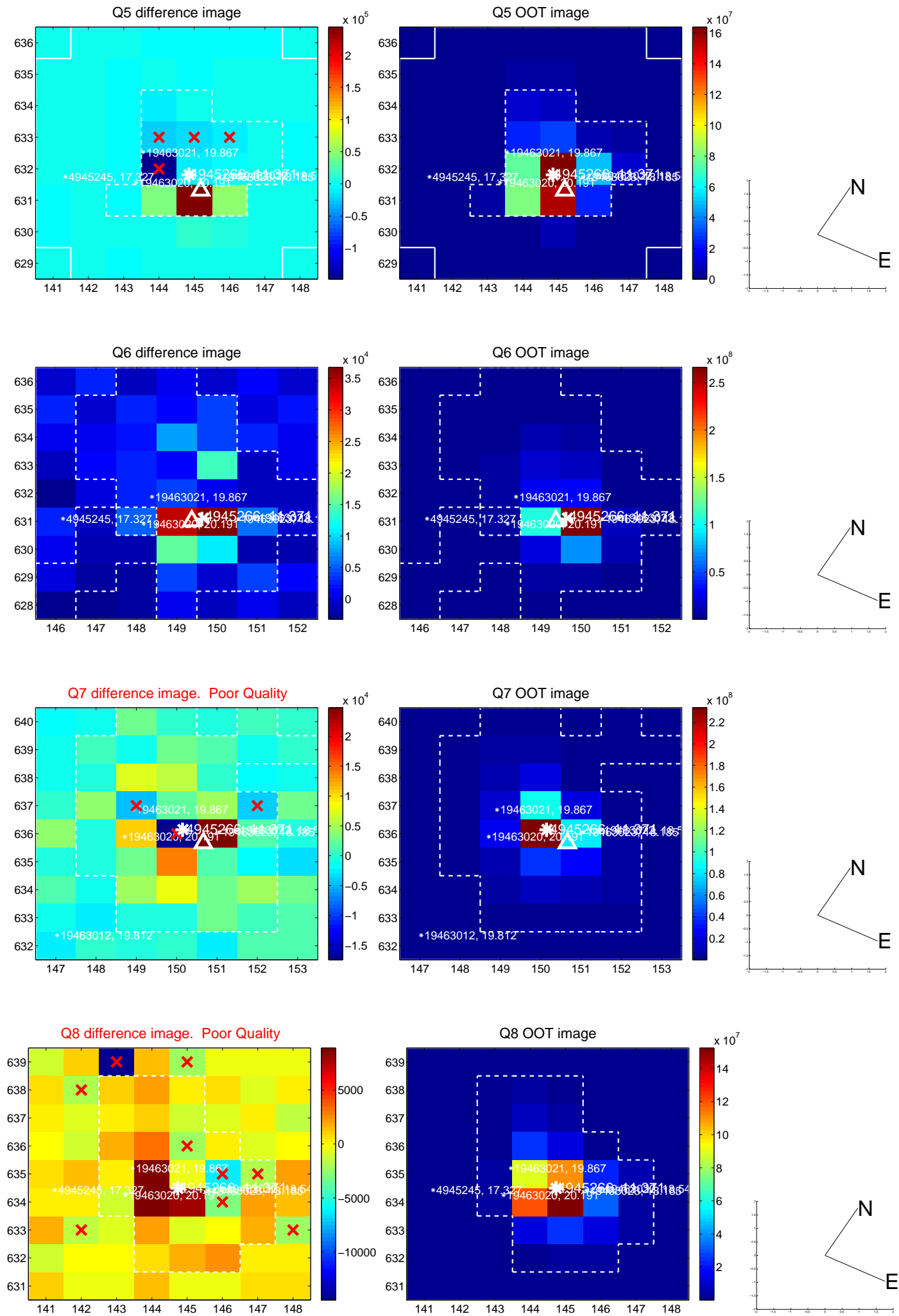


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

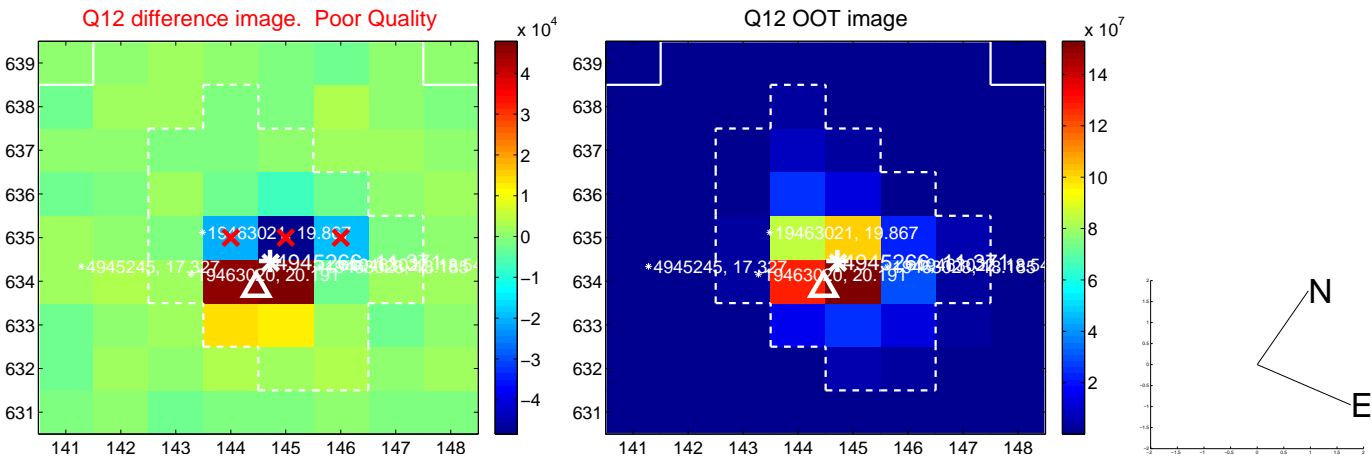
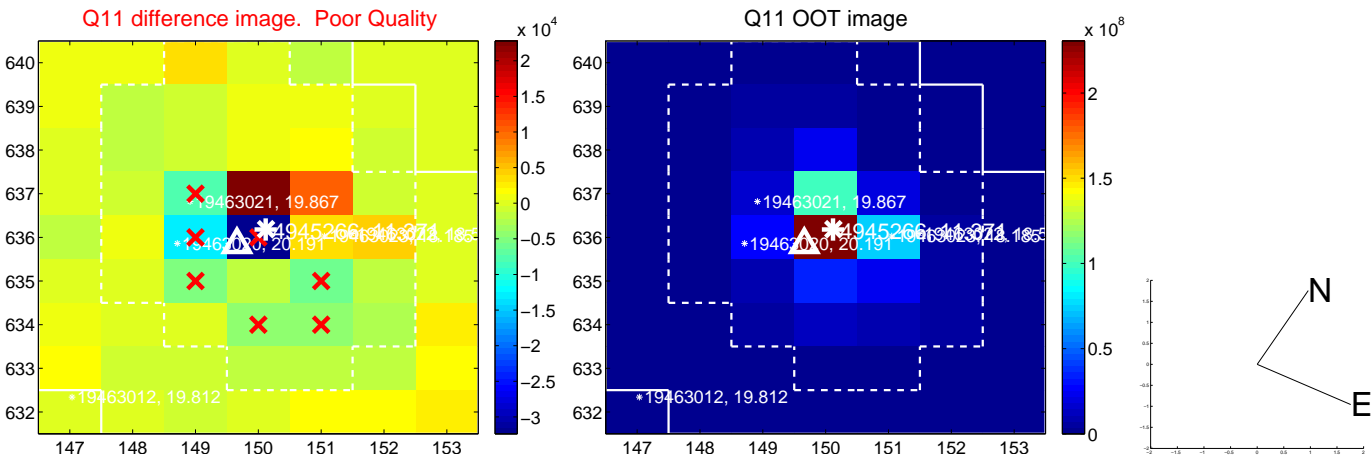
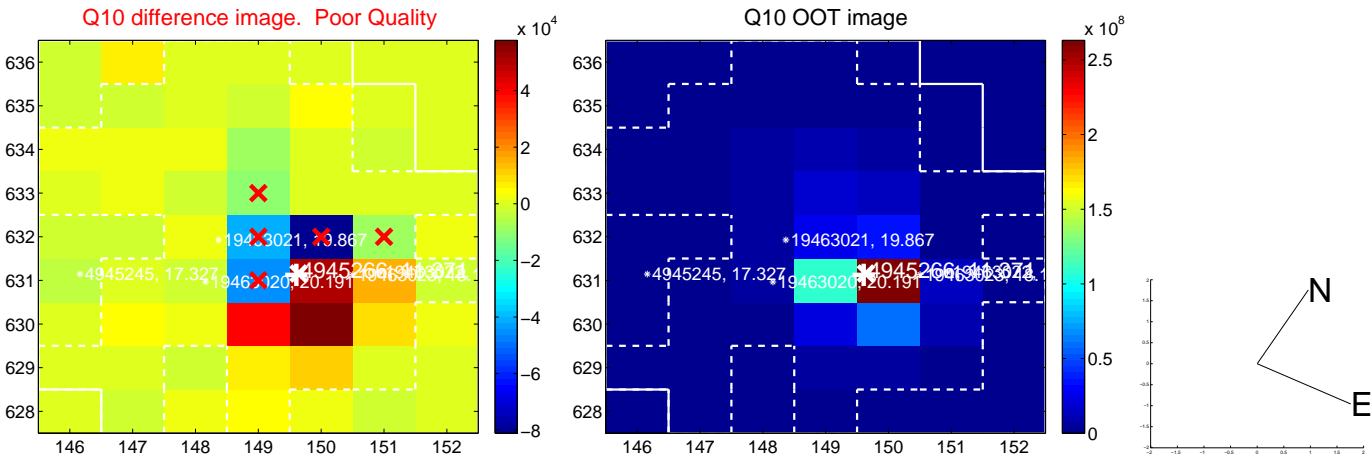
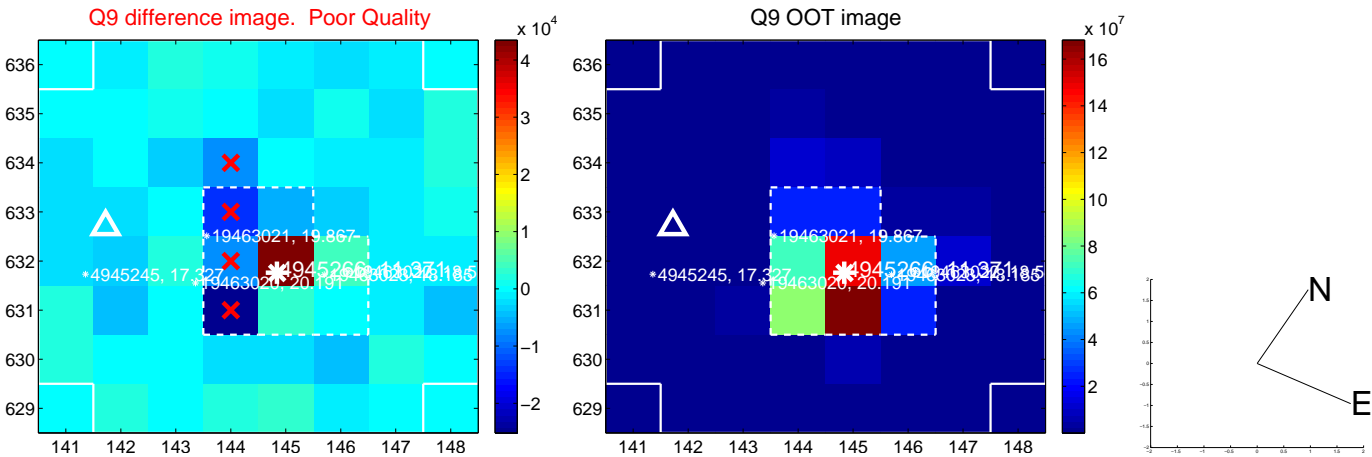
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



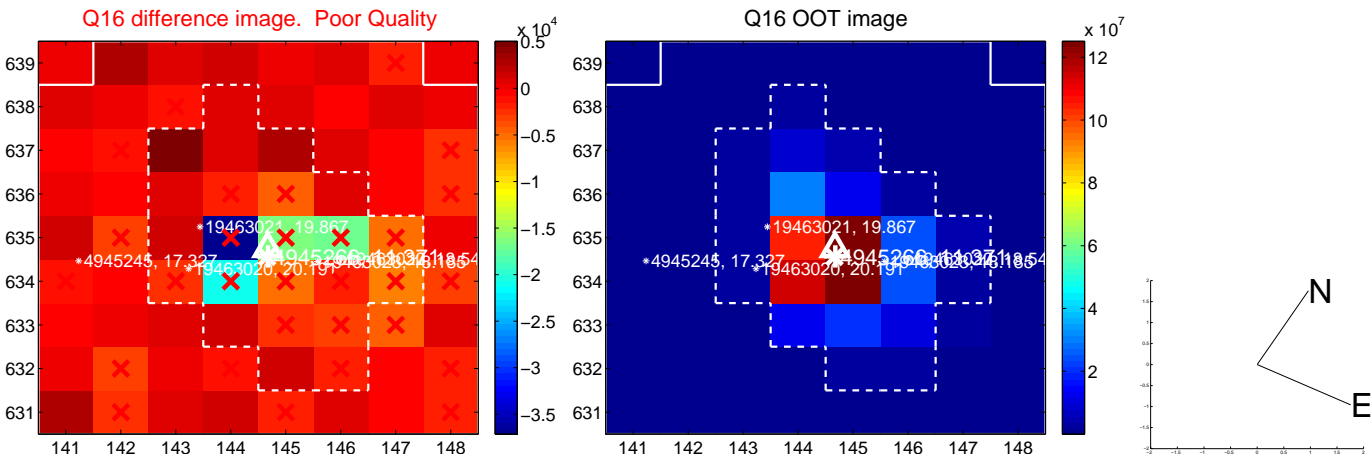
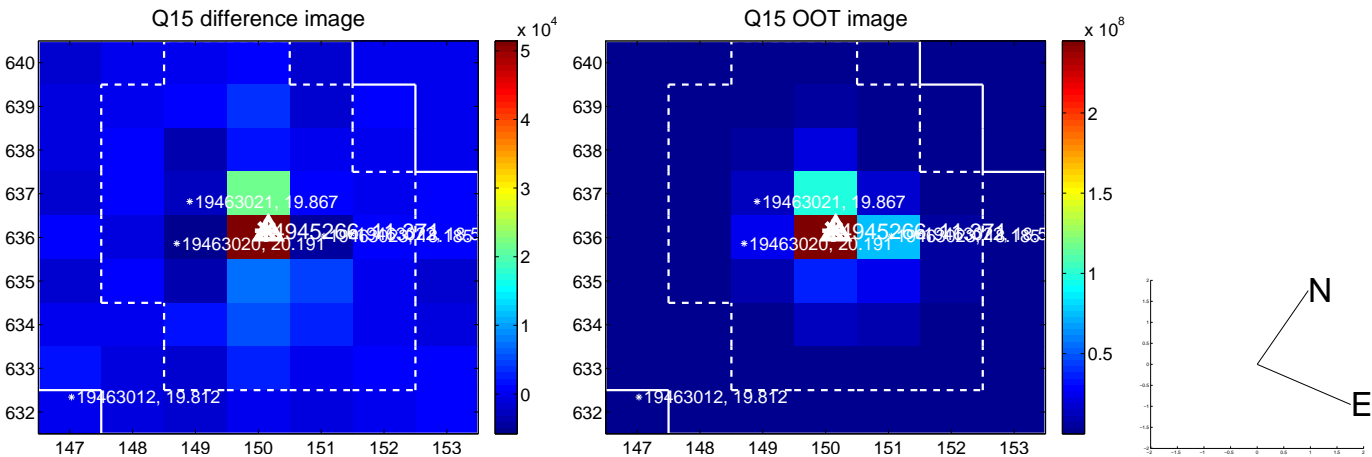
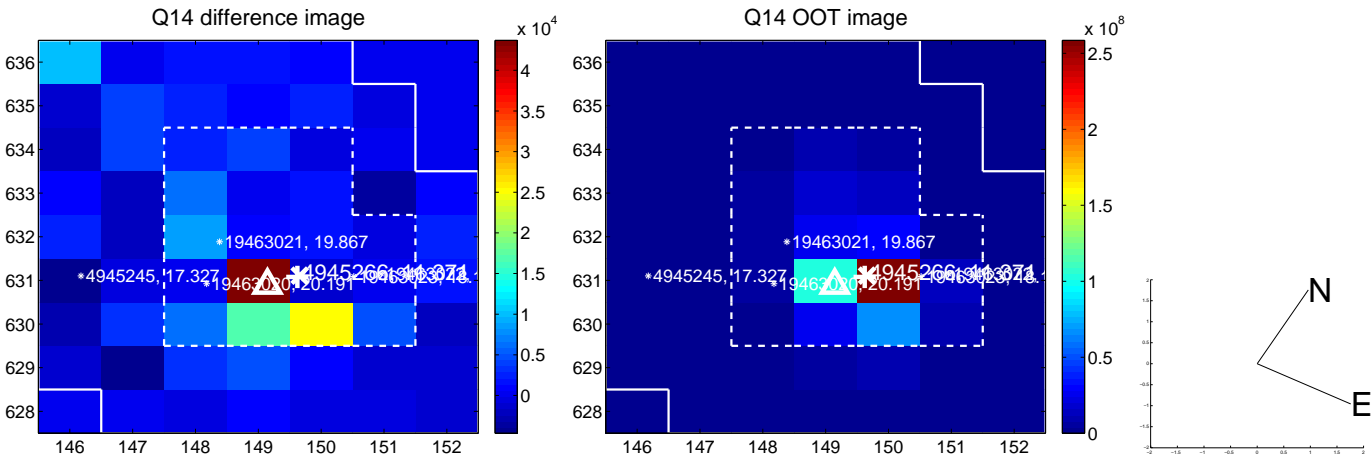
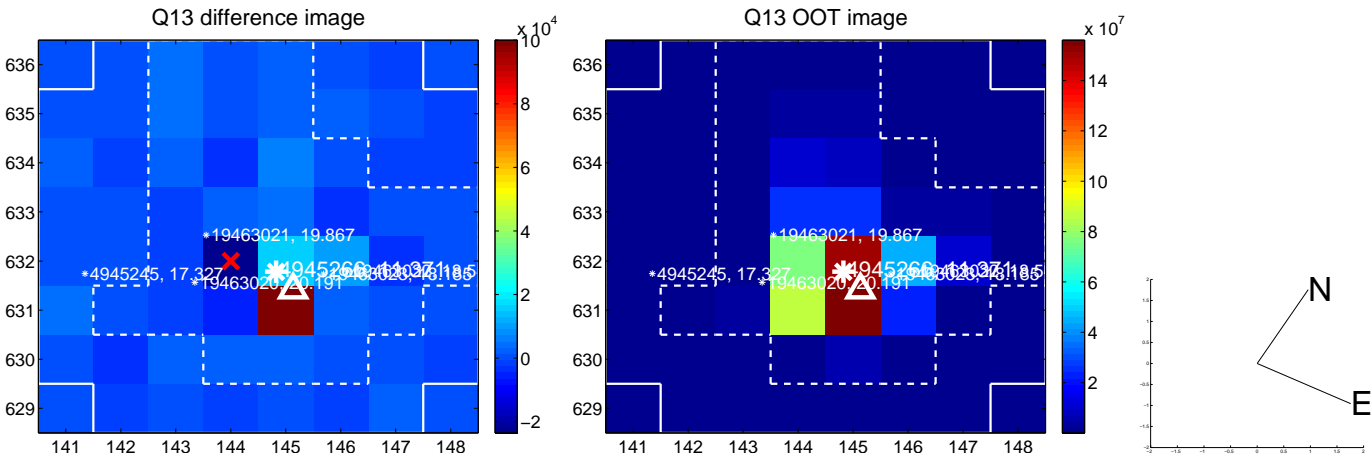
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



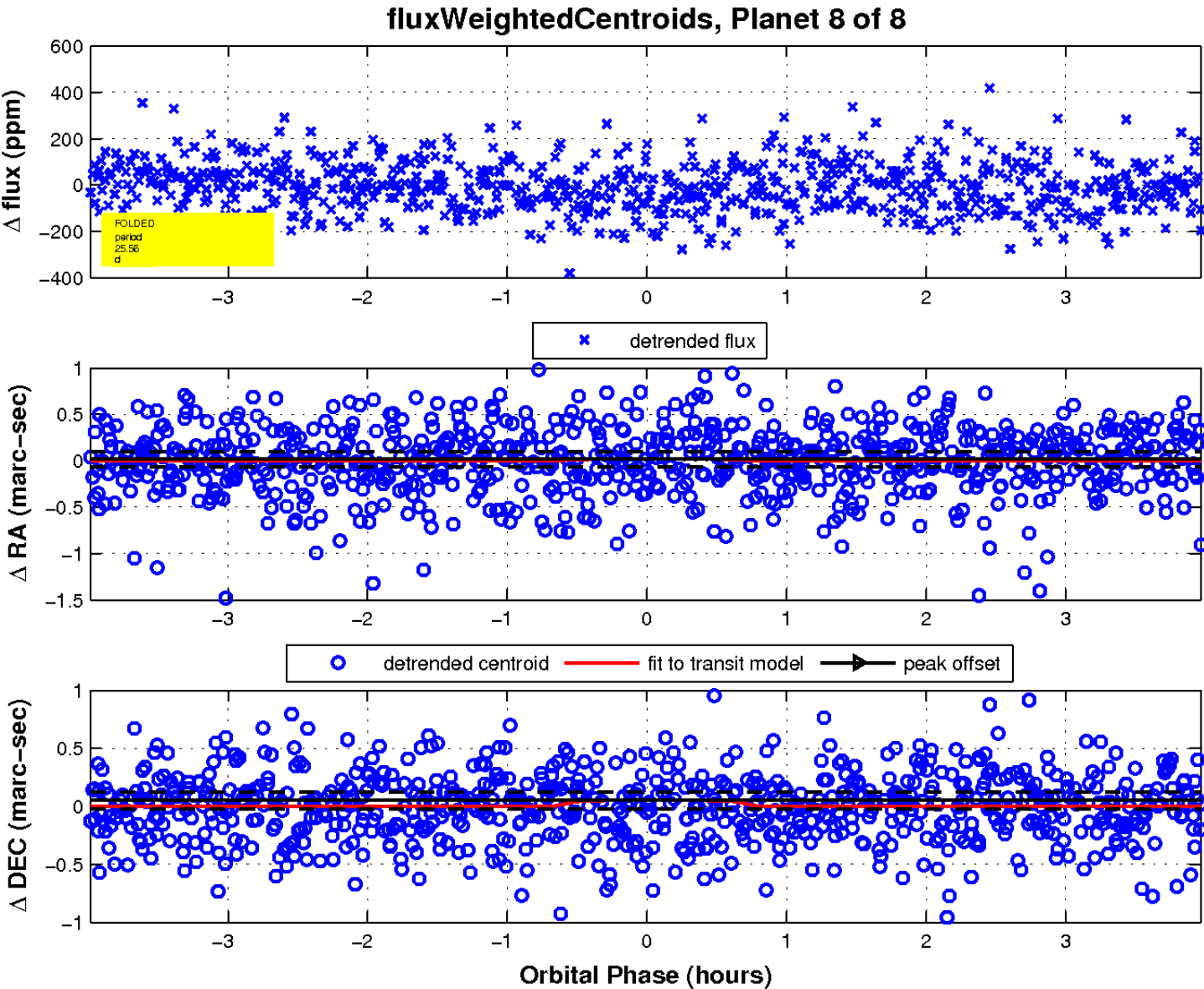
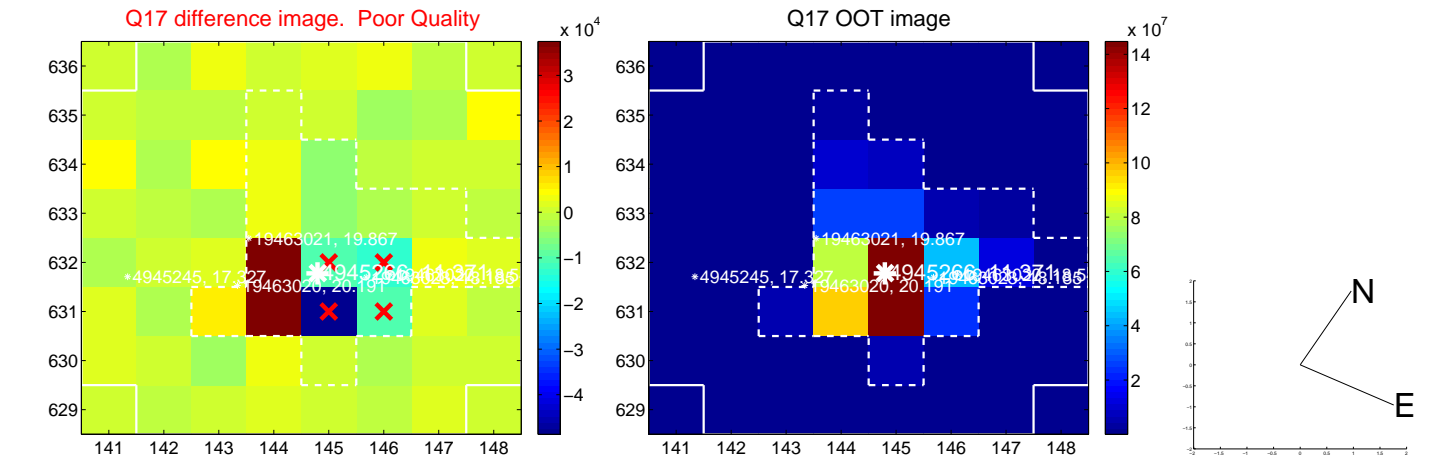
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

