

KIC 007950550

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})
007950550-01	OBS	No	78.754453	187.099506	53.7	1.615	31.6	16.3	10.66	4929	9.55	290.62
007950550-02	OBS	No	55.808550	138.872074	58.3	3.245	15.3	17.3	10.66	4929	9.37	459.99
007950550-03	OBS	No	42.951829	159.829241	41.0	5.498	15.7	11.4	10.66	4929	8.16	652.20
007950550-04	OBS	No	44.561631	161.040643	52.2	1.207	15.2	18.4	10.66	4929	9.53	620.97
007950550-05	OBS	No	131.379320	242.059586	29.5	11.224	15.0	7.7	10.66	4929	6.93	146.89
007950550-06	OBS	No	82.129715	143.985409	37.5	16.367	15.4	8.8	10.66	4929	7.65	274.80
007950550-07	OBS	No	51.755812	179.880861	10.9	1.900	14.1	3.5	10.66	4929	3.63	508.64
007950550-08	OBS	No	149.936248	138.841227	69.5	7.544	22.6	16.5	10.66	4929	10.82	123.16
007950550-09	OBS	No	37.154510	135.118424	21.9	8.813	14.3	8.8	10.66	4929	5.95	791.29
007950550-10	OBS	No	68.278848	136.425466	186.5	5.314	12.6	1.4	10.66	4929	16.52	351.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007950550-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-02	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
007950550-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007950550-06	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
007950550-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007950550-09	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
007950550-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

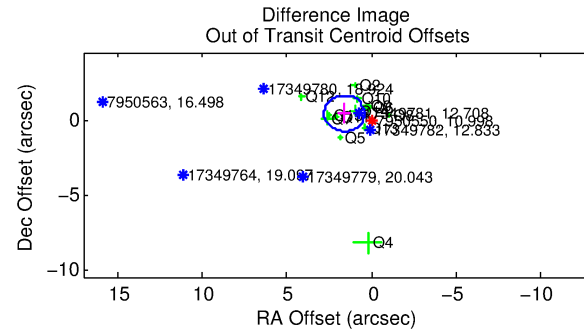
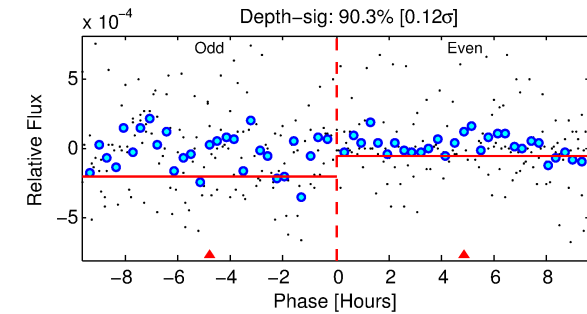
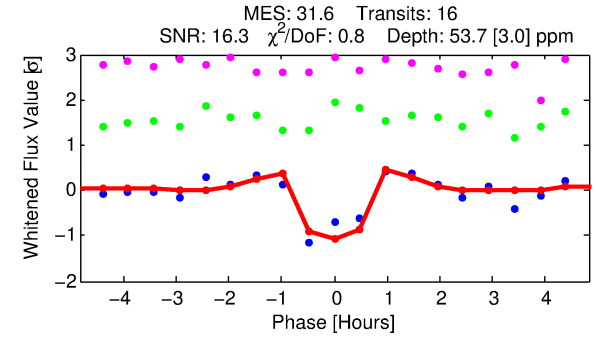
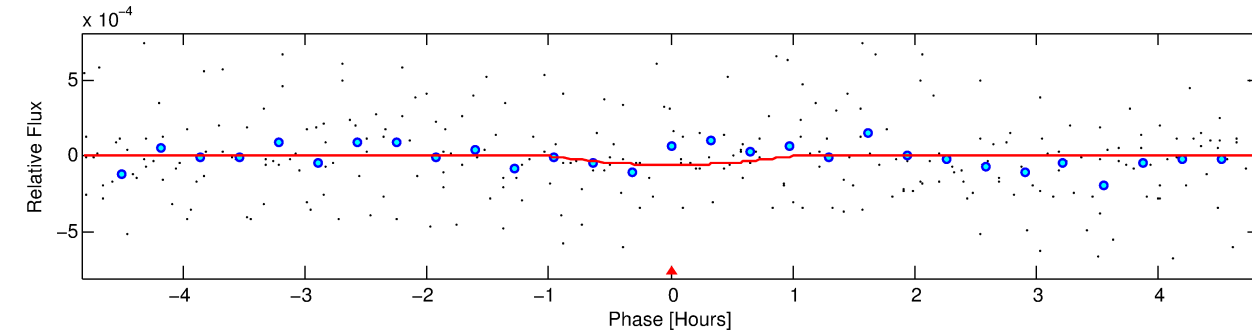
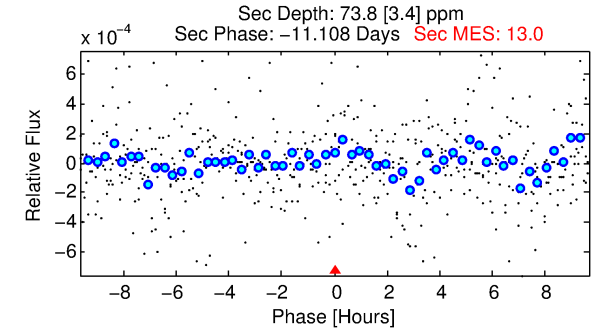
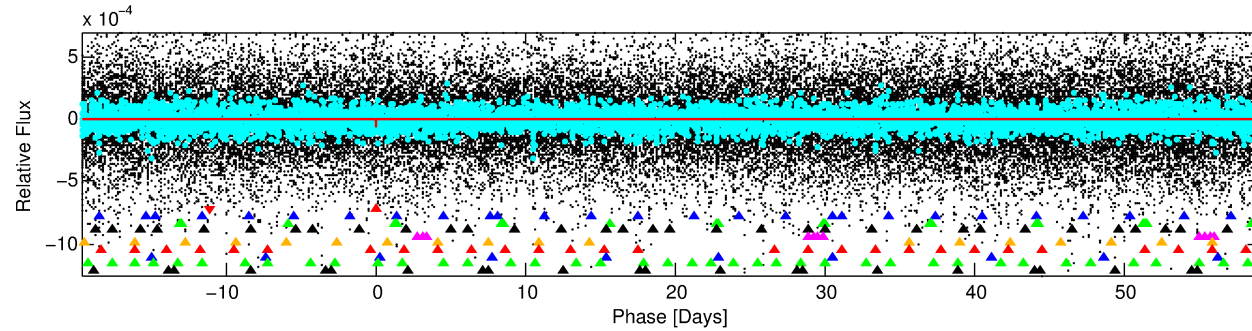
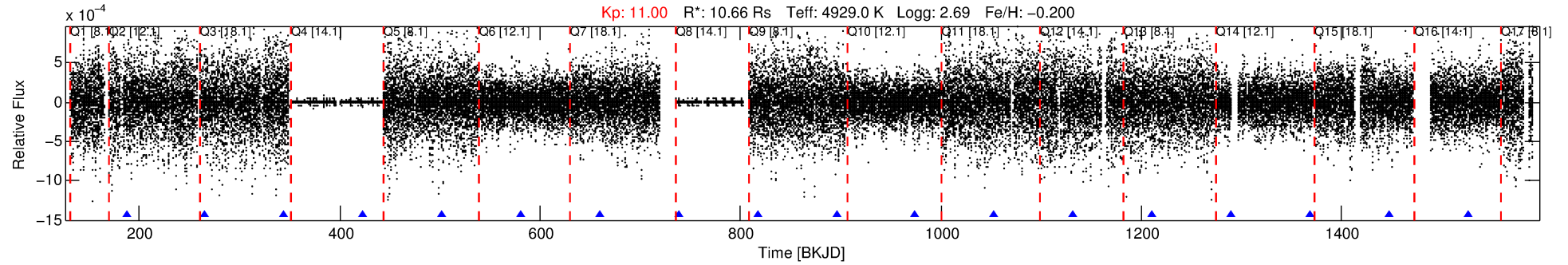
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007950550-01

No Significant Match Found

DV One-Page Summary

KIC: 7950550 Candidate: 1 of 10 Period: 78.754 d



DV Fit Results:

Period = 78.75445 [0.00060] d
Epoch = 187.0995 [0.0022] BKJD
Rp/R* = 0.0082 [0.0048]
a/R* = 166.96 [396.51]
b = 0.90 [0.51]
Seff = 290.62 [57.98]
Teff = 1053 [53] K
Rp = 9.56 [6.08] Re
a = 0.4546 [0.0736] AU
Ag = 91.92 [109.39] [0.83σ]
Teffp = 5040 [1491] K [2.67σ]

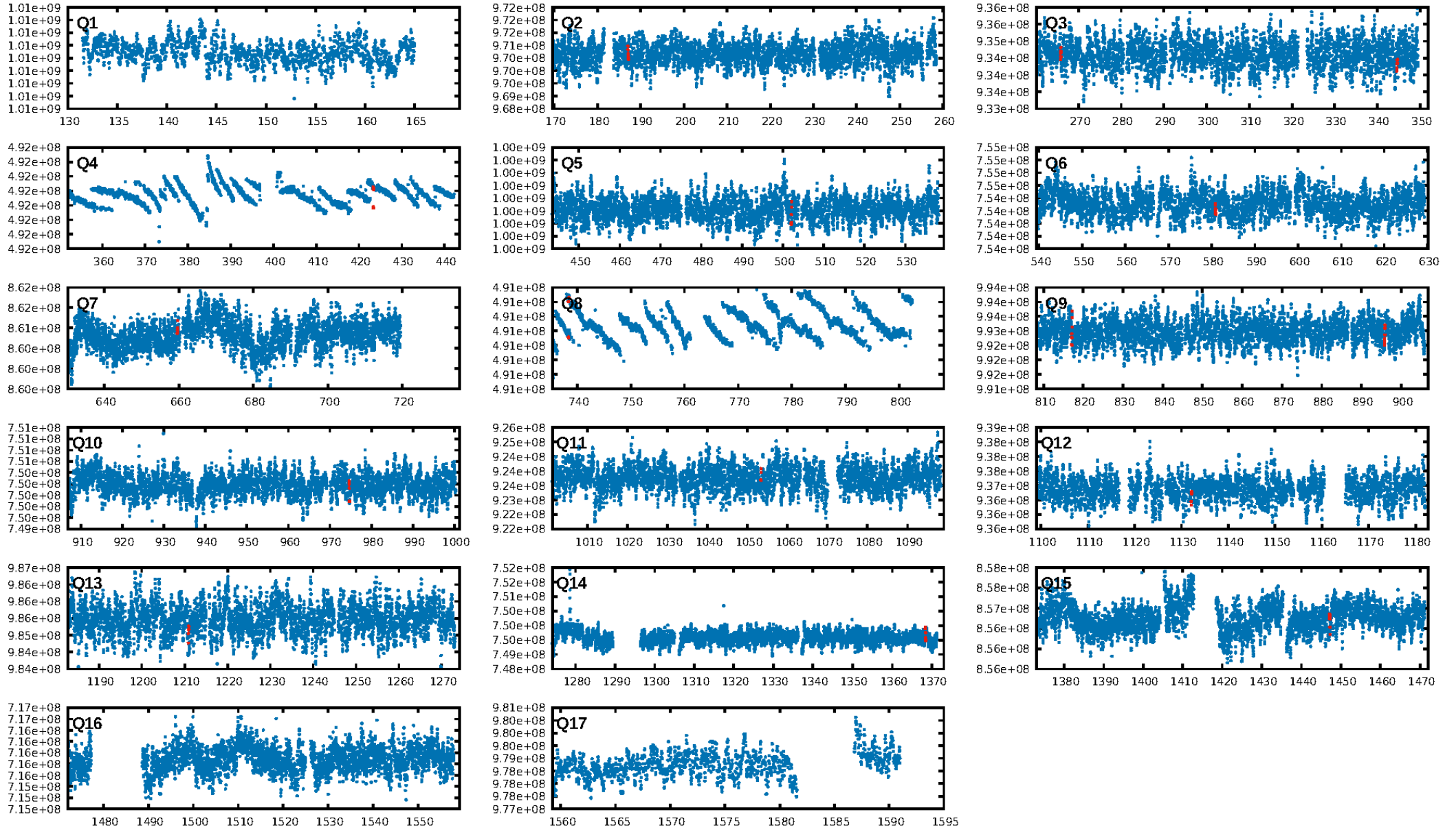
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [45.27σ]
LongPeriod-sig: 100.0% [4.93σ]
ModelChiSquare2-sig: 59.0%
ModelChiSquareGof-sig: 99.5%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [16/16]
GhostDiagnostic-chr: 45.15
Centroid-sig: 7.9%
Centroid-so: 4.673 arcsec [1.99σ]
OotOffset-rm: 1.674 arcsec [4.21σ]
KicOffset-rm: 1.800 arcsec [3.86σ]
OotOffset-st: 4/3/3/3 [13]
KicOffset-st: 4/3/3/3 [13]
DiffImageQuality-fgm: 0.23 [3/13]
DiffImageOverlap-fno: 0.86 [12/14]

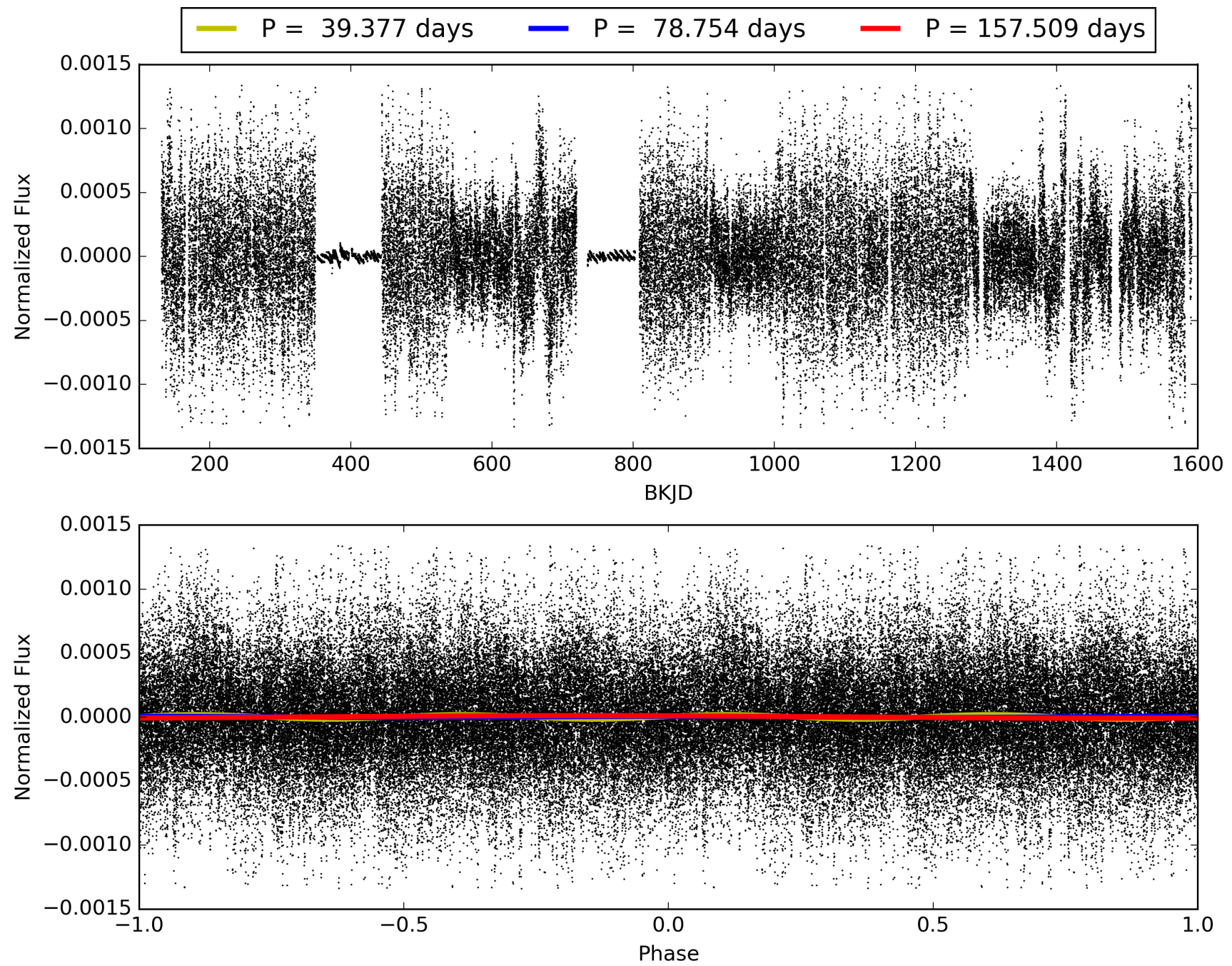
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:45:48 Z

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

TCE 007950550-01, PDC Light Curves

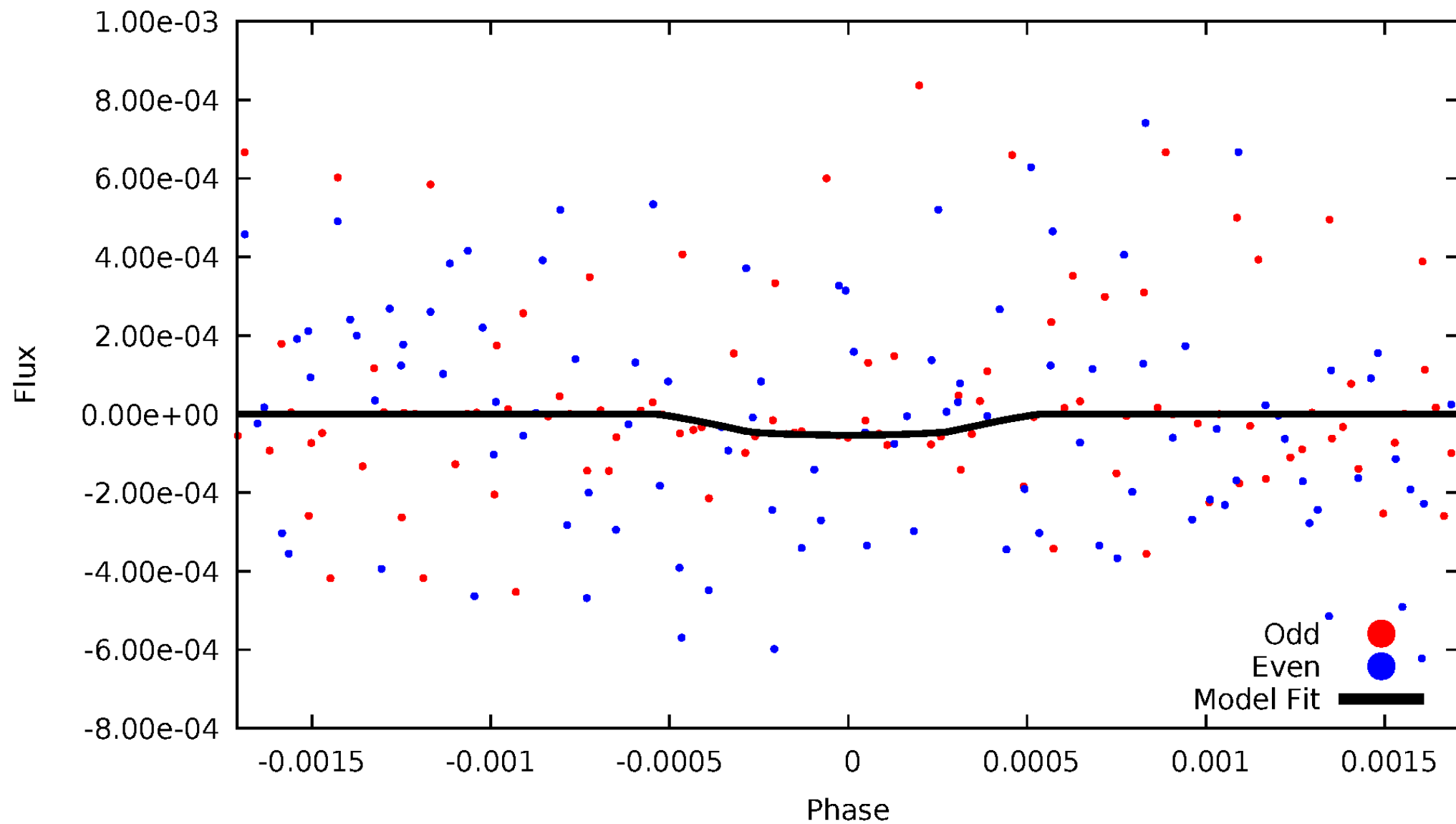


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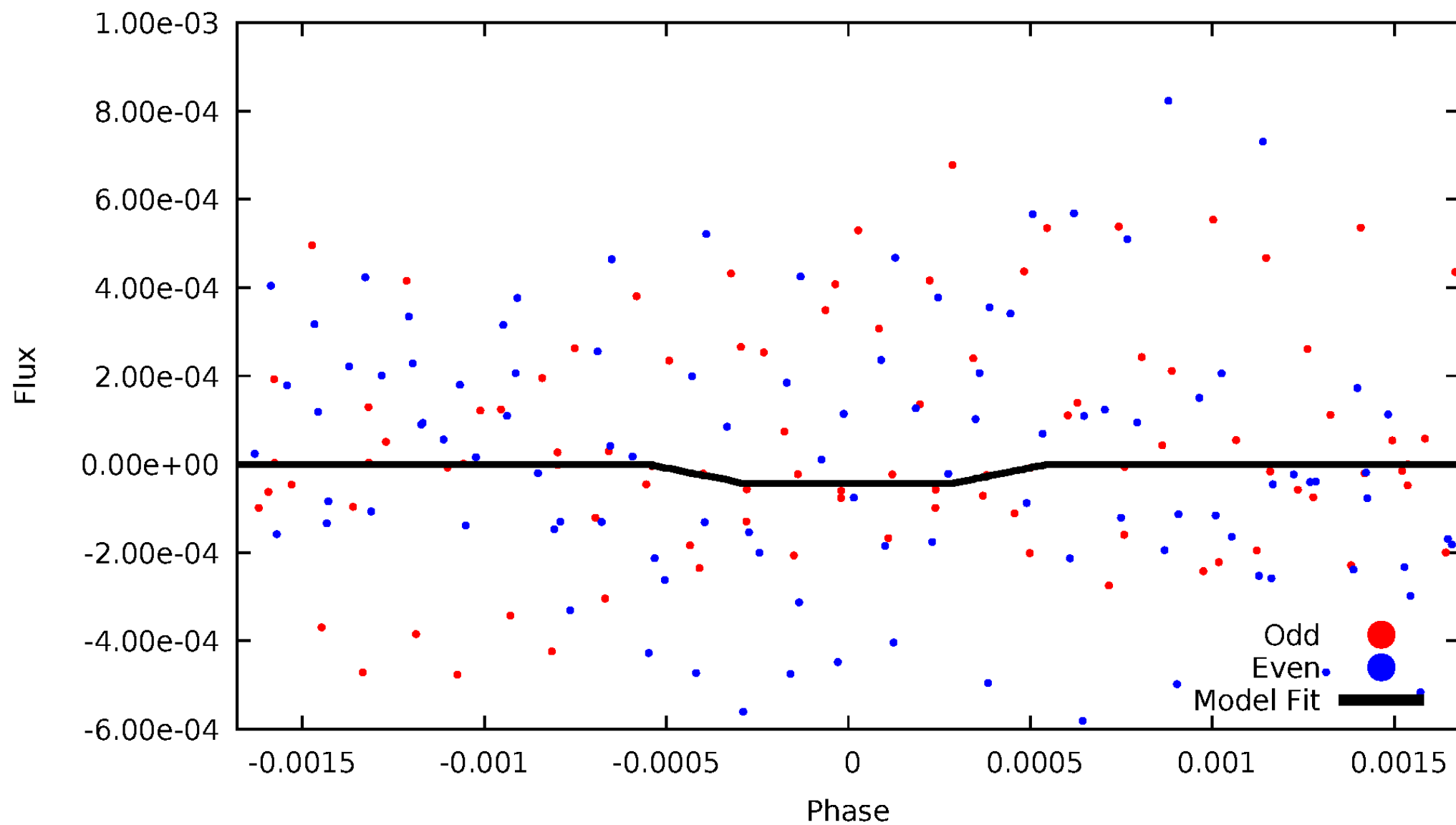
DV Odd/Even

TCE 007950550-01

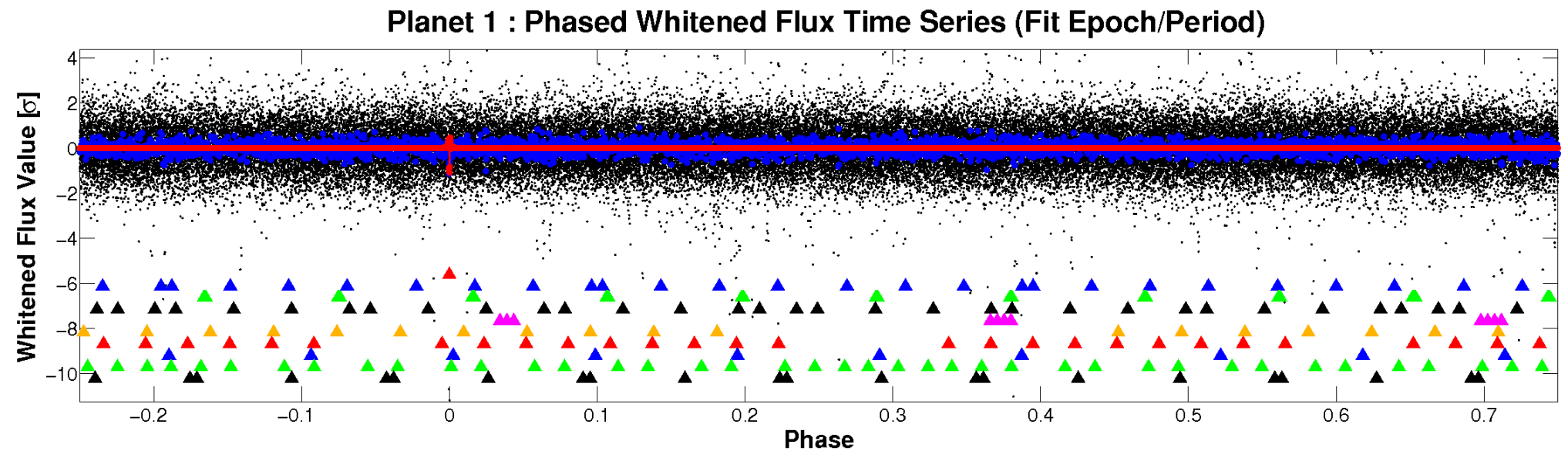
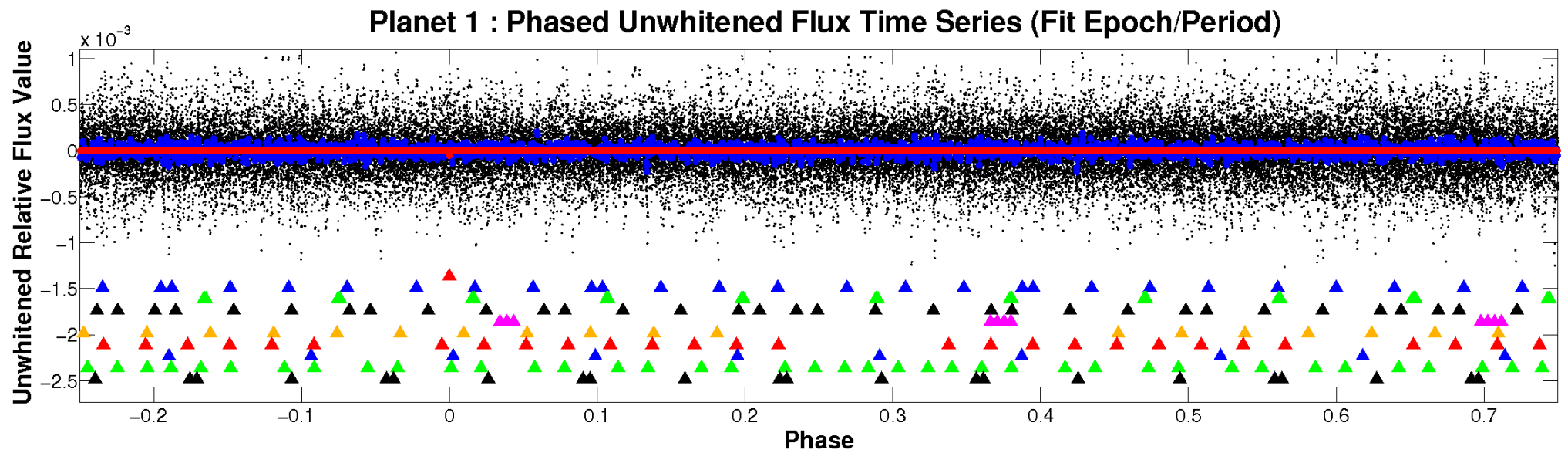


ALT Odd/Even

TCE 007950550-01

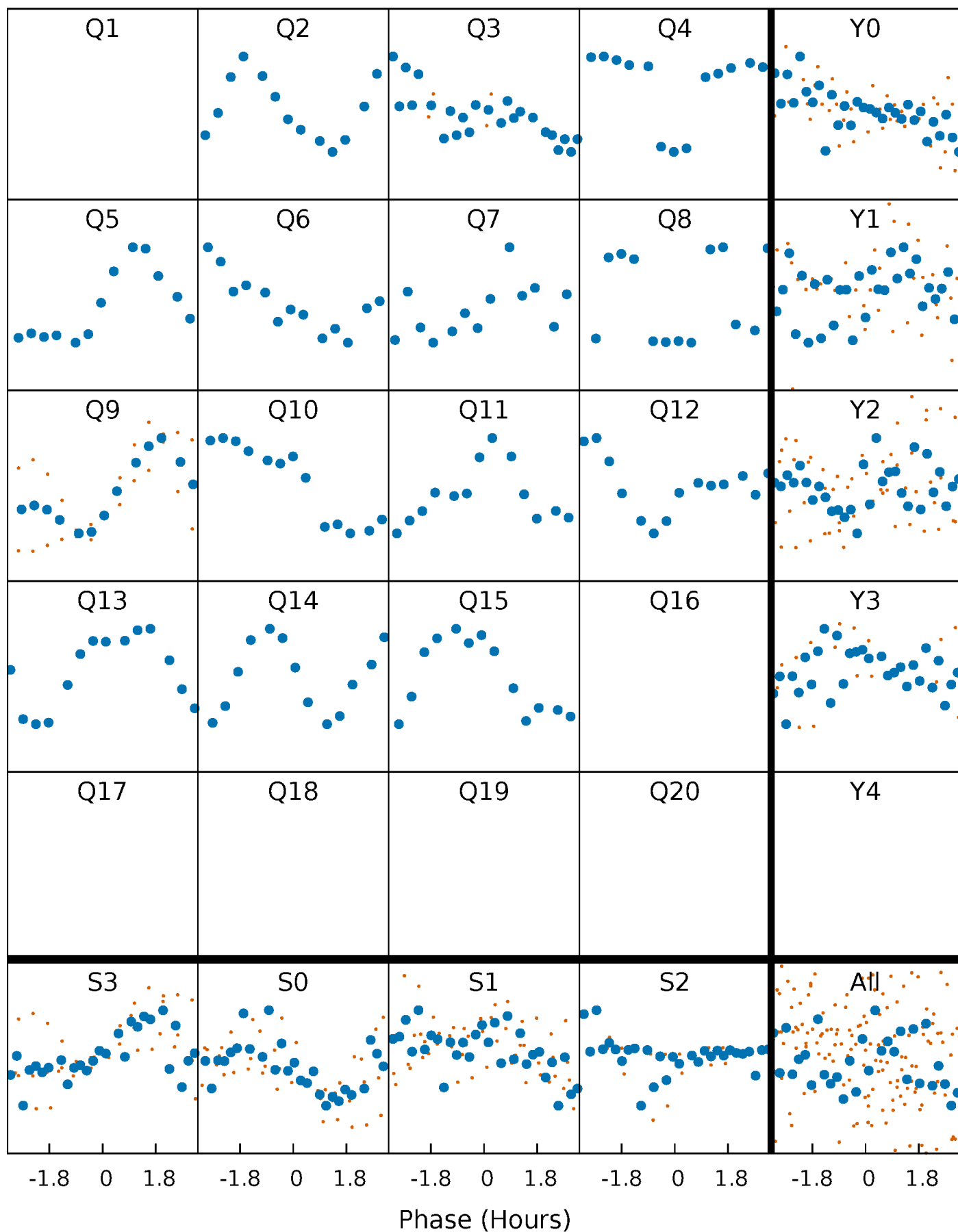


Non-Whitened Vs. Whitened Light Curve



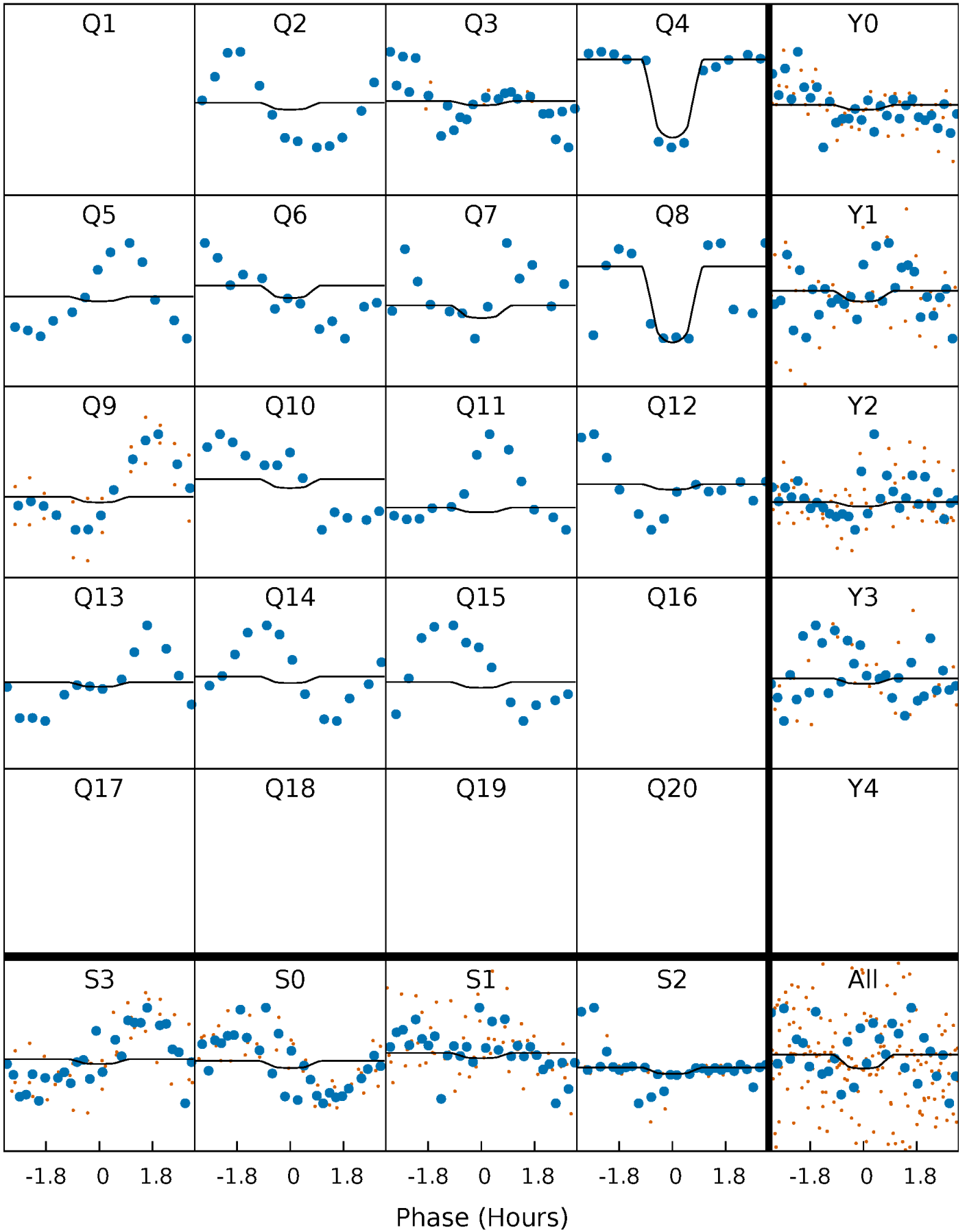
PDC Quarter-Phased Transit Curves

TCE 007950550-01 P= 78.754453 Days $T_0=187.099506$ (BKJD)



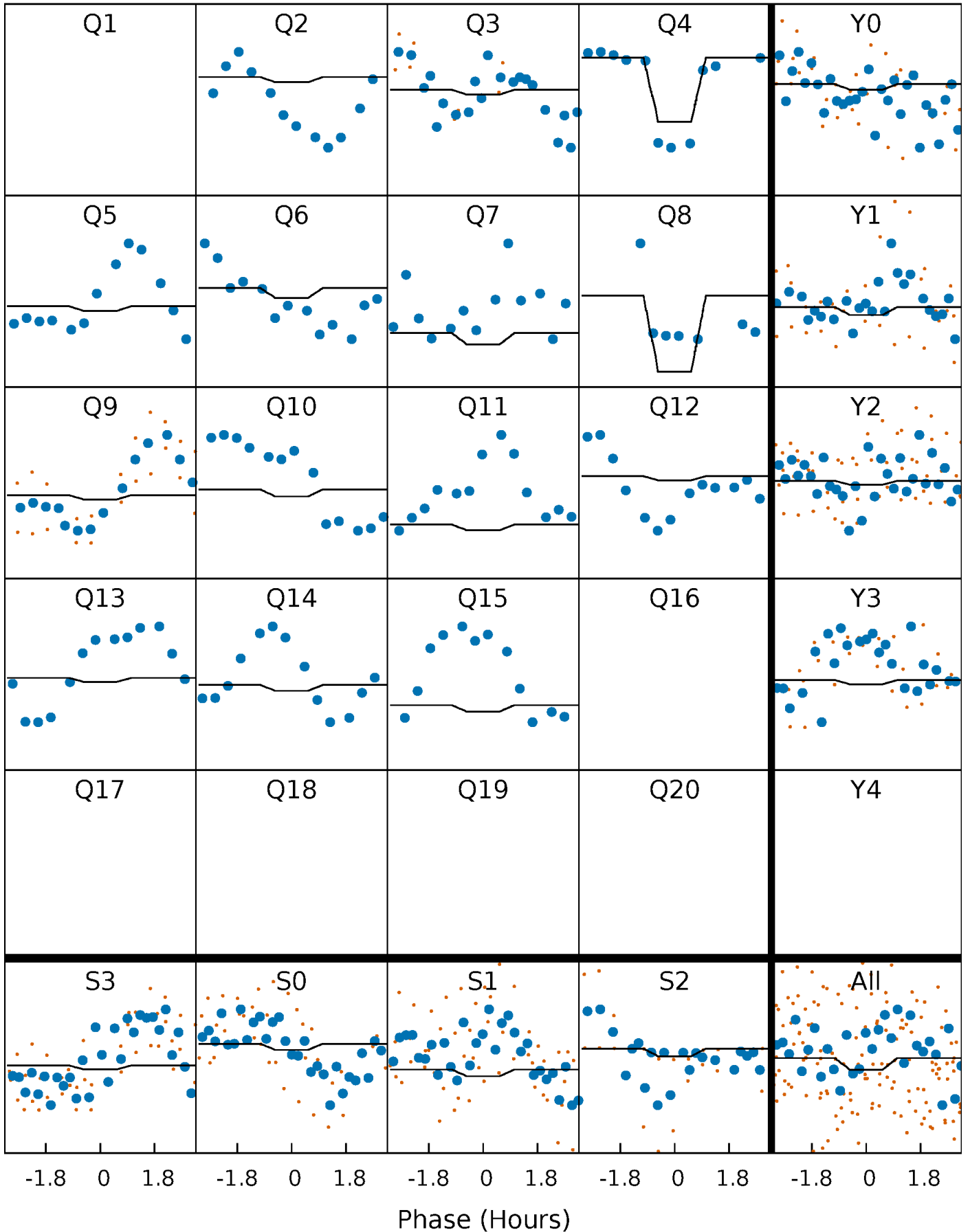
DV Quarter-Phased Transit Curves

TCE 007950550-01 P= 78.754453 Days $T_0=187.099506$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

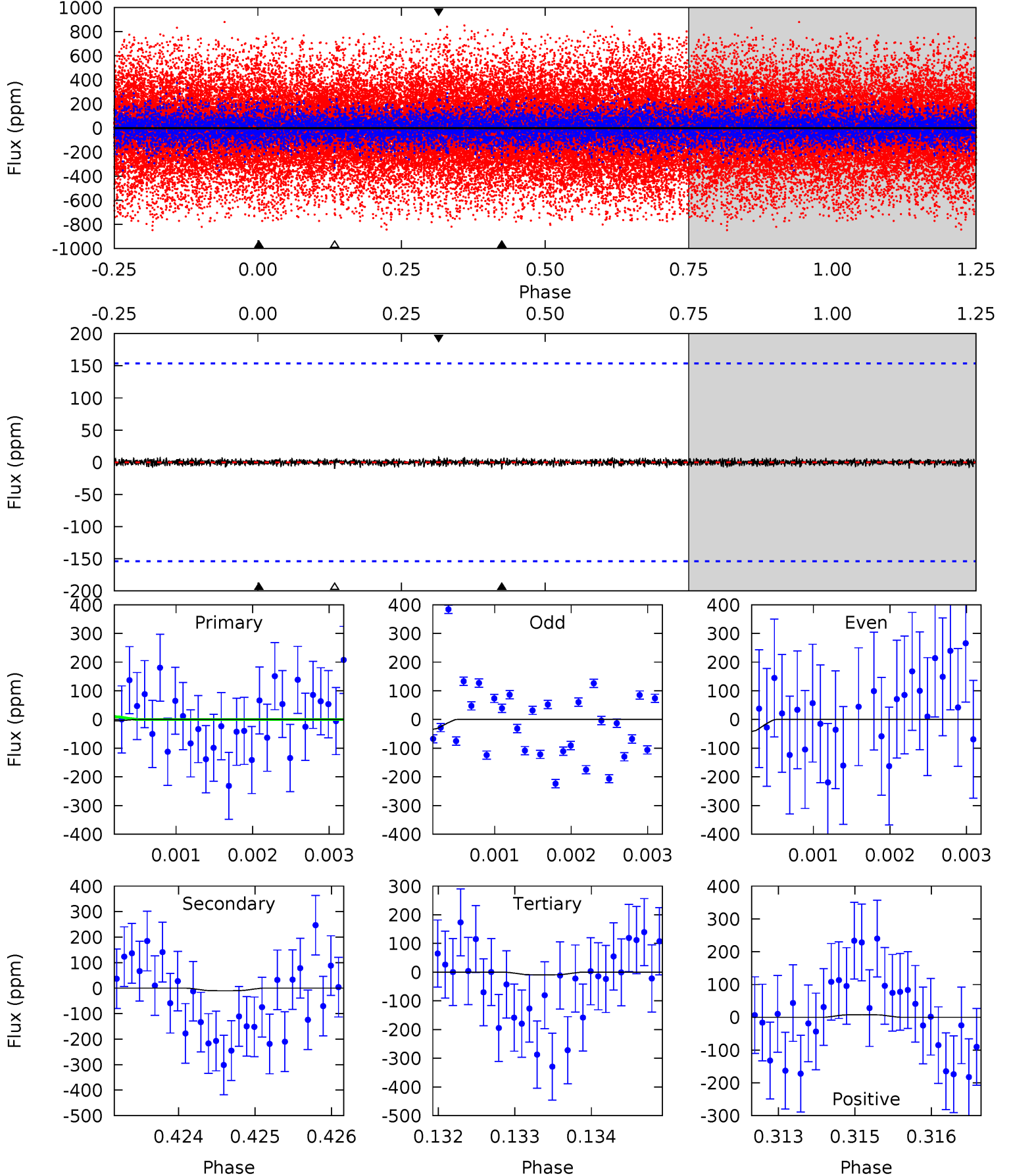
TCE 007950550-01 P= 78.753403 Days $T_0=187.104114$ (BKJD)



DV Model-Shift Uniqueness Test

007950550-01, $P = 78.754453$ Days, $E = 108.345053$ Days

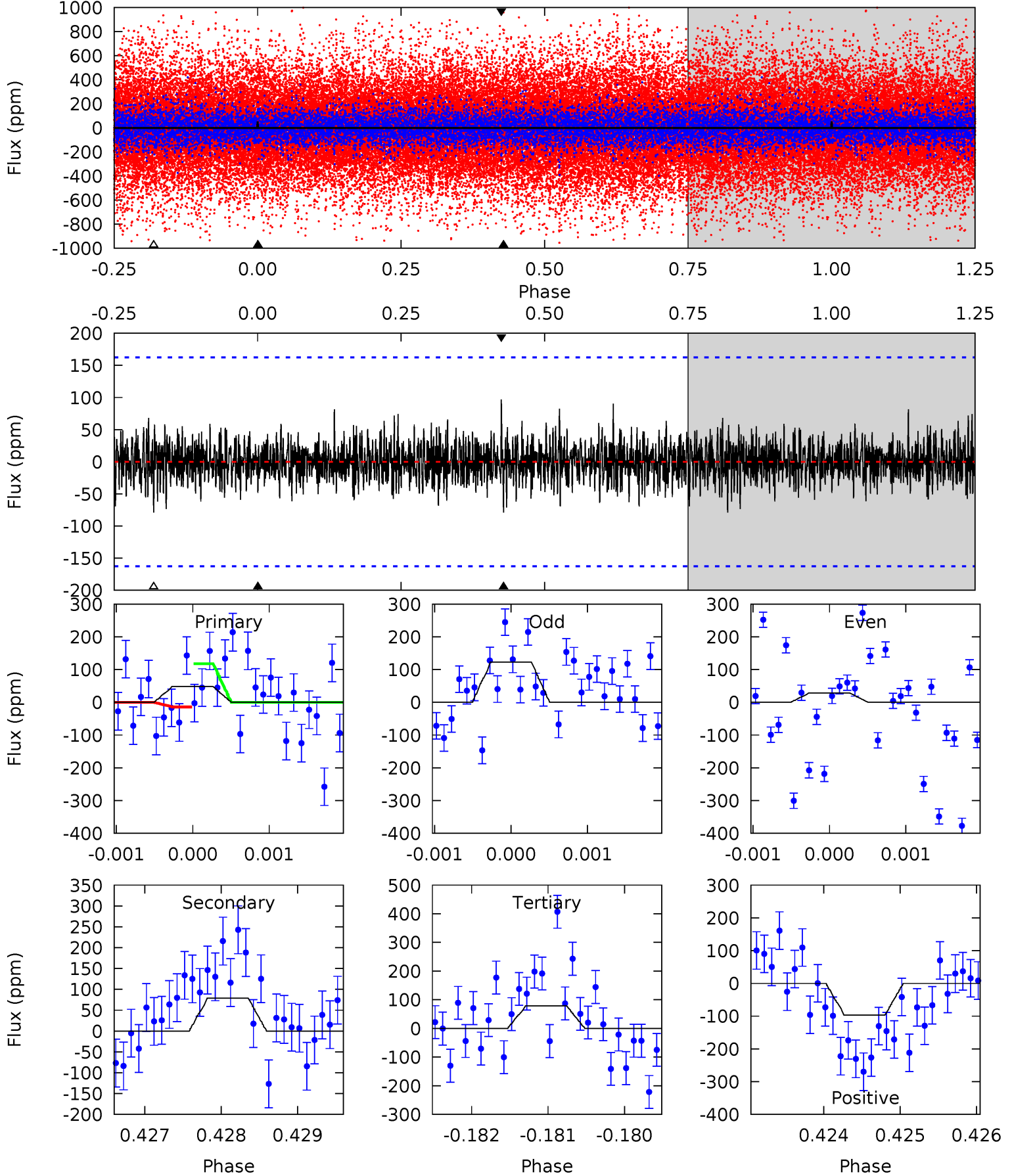
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.19	0.37	0.34	0.28	5.44	3.27	0.09	-0.15	-0.10	0.04	0.09	0.15	-0.30	0.43	0.16



Alt Model-Shift Uniqueness Test

007950550-01, $P = 78.753403$ Days, $E = 108.350711$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.61	2.64	2.63	3.24	5.44	3.27	0.80	-1.02	-1.63	0.00	-0.61	1.59	0.99	0.55	1.75



Stellar Parameters For KIC 007950550

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4929^{+38}_{-135}	$2.688^{+0.030}_{-0.030}$	$-0.200^{+0.100}_{-0.150}$	$10.657^{+1.098}_{-2.562}$	$2.022^{+0.770}_{-0.847}$	$0.002^{+0.001}_{-0.000}$
	+1%/-3%	+1%/-1%	+50%/-75%	+10%/-24%	+38%/-42%	+34%/-9%
Source	PHO55	AST55	SPE55	DSEP		

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

Secondary Eclipse Parameters for KIC 007950550-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-11 ± 28	$9.97^{+5.41}_{-5.29}$	1467^{+34}_{-50}	3322^{+1416}_{-7132}	$9.655^{+59.497}_{-31.047}$
Alt.	-79 ± 30	$8.41^{+5.74}_{-4.96}$	1470^{+31}_{-53}	5319^{+3247}_{-1080}	128^{+605}_{-87}

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

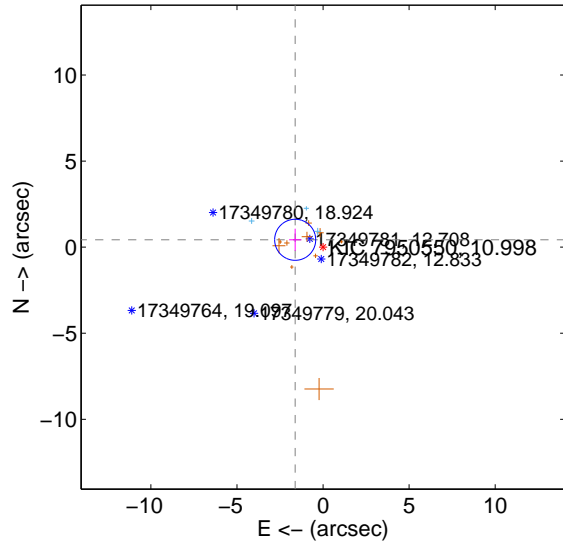
Supplemental centroid analysis for 007950550-01. **Kepler magnitude: 11.00.** Transit SNR 16.29

There are 3 quarters with good PRF difference image offsets

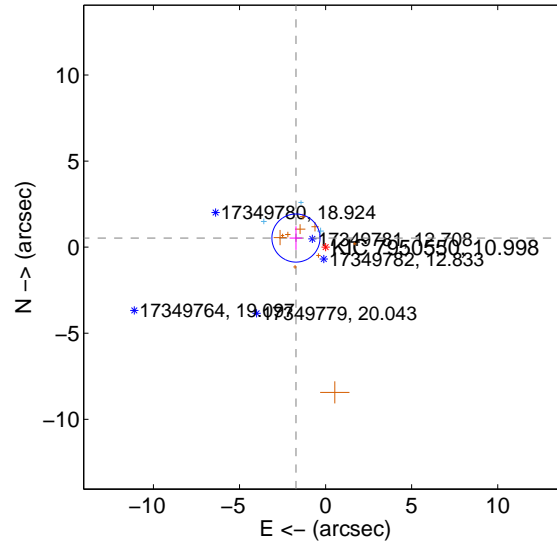
The direct PRF centroid is offset from the target star catalog position by about 0.37 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.674 ± 0.397	4.21	1.618 ± 0.356	0.429 ± 0.642
PRF-fit source offset from KIC position	1.800 ± 0.466	3.86	1.720 ± 0.373	0.531 ± 0.685
photometric centroid source offset	4.67 ± 2.35	1.99	4.65 ± 2.35	0.49 ± 2.00

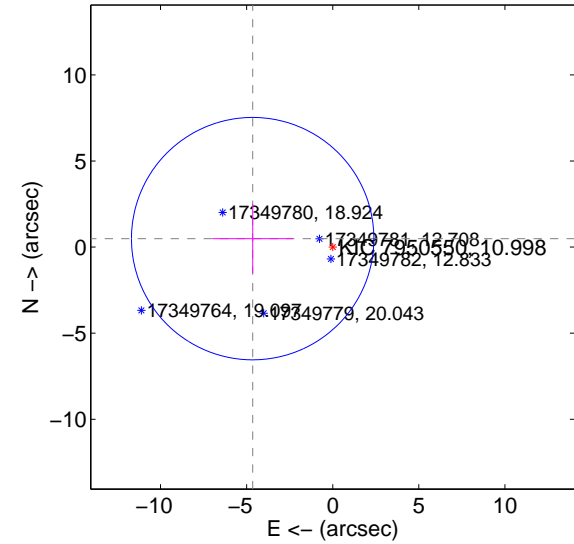
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

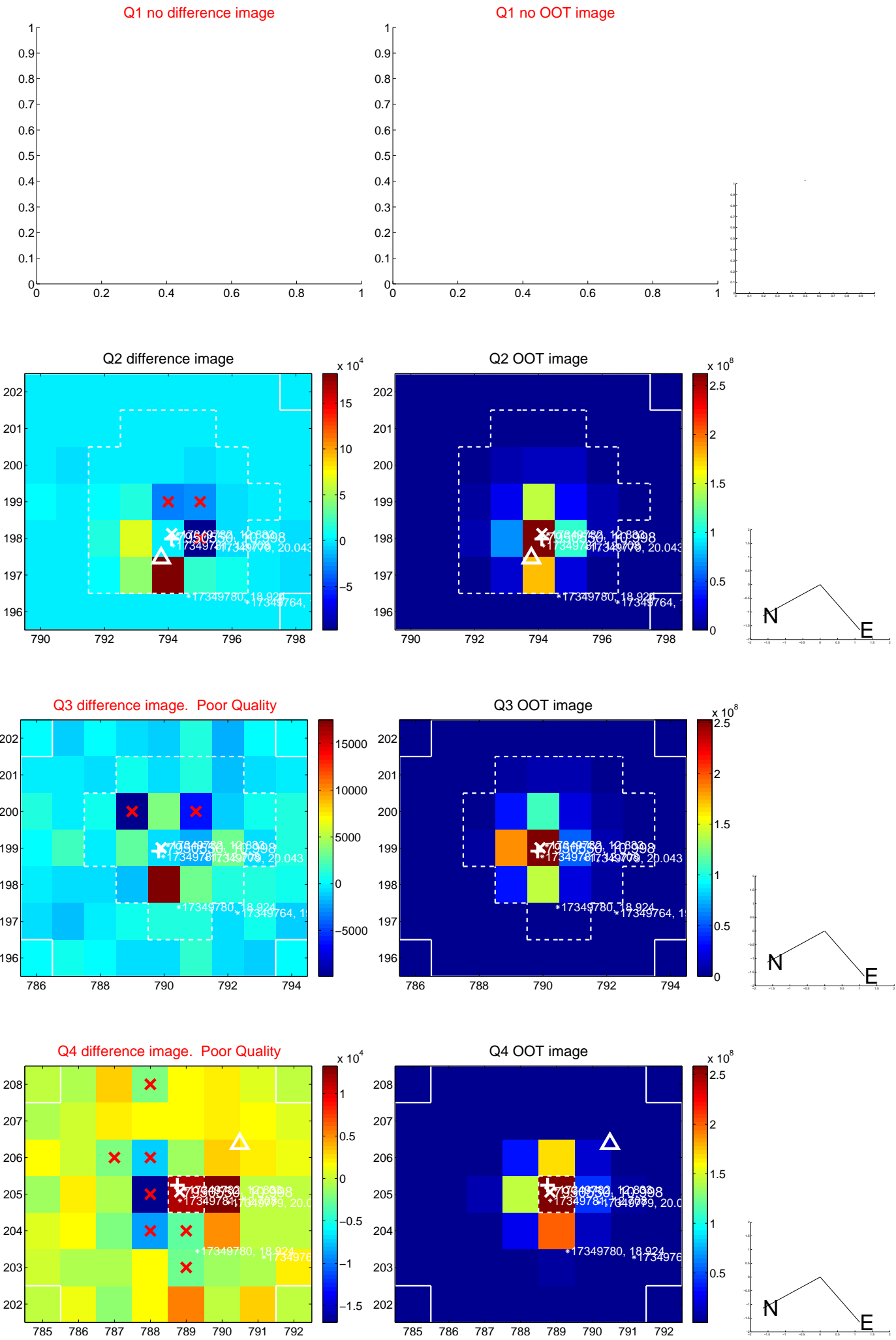


offset from photometric centroids

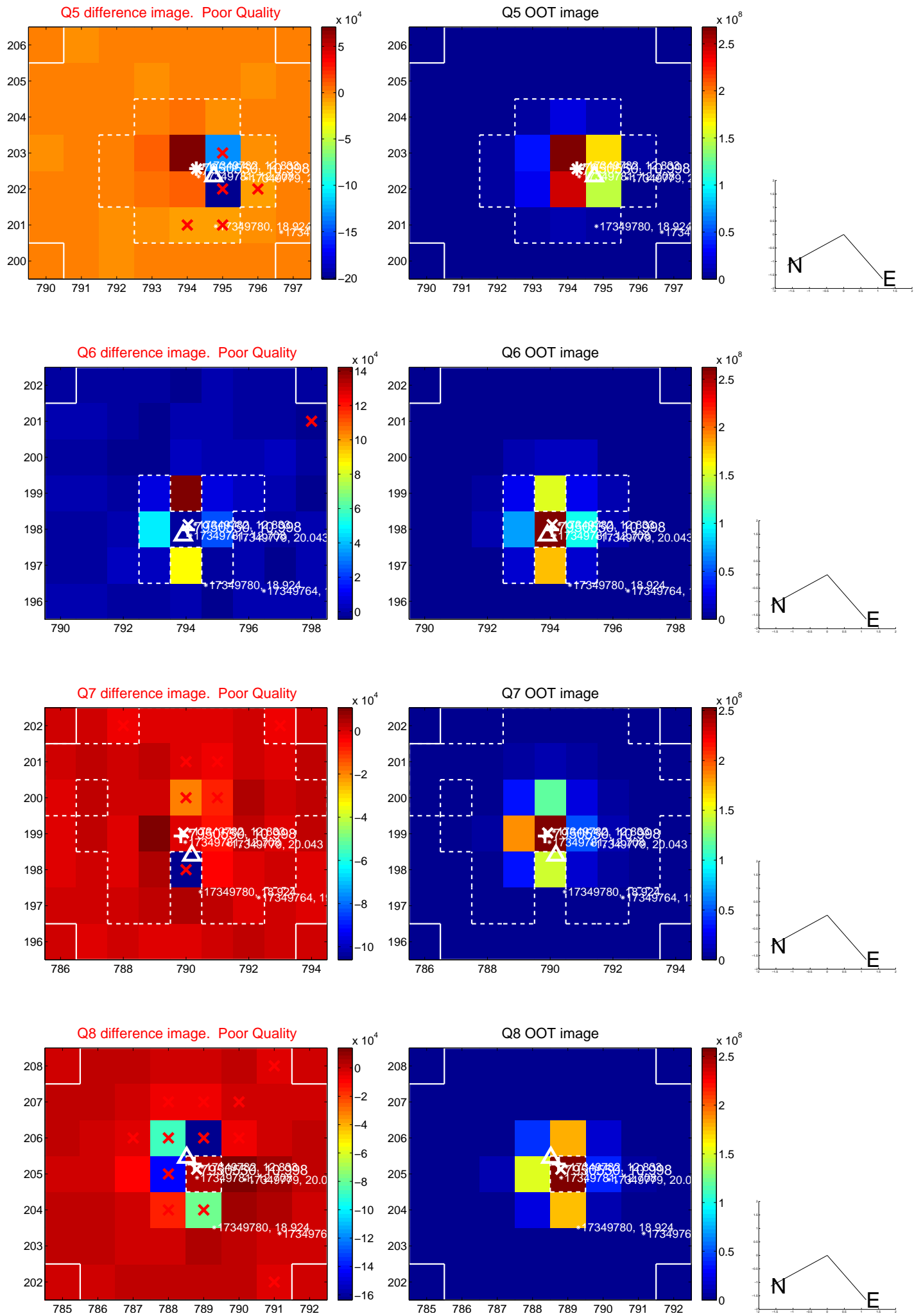


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

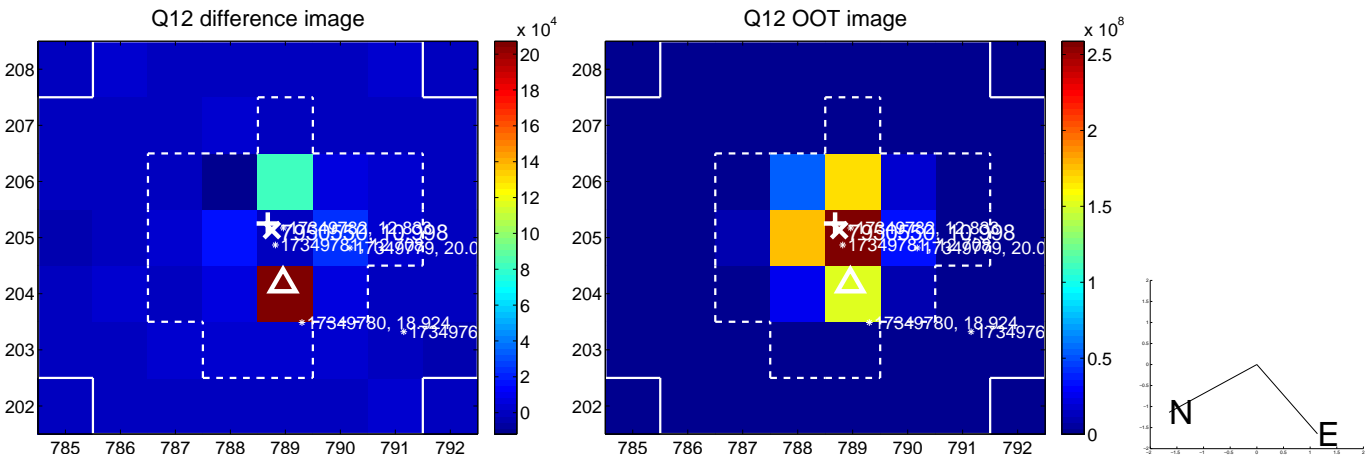
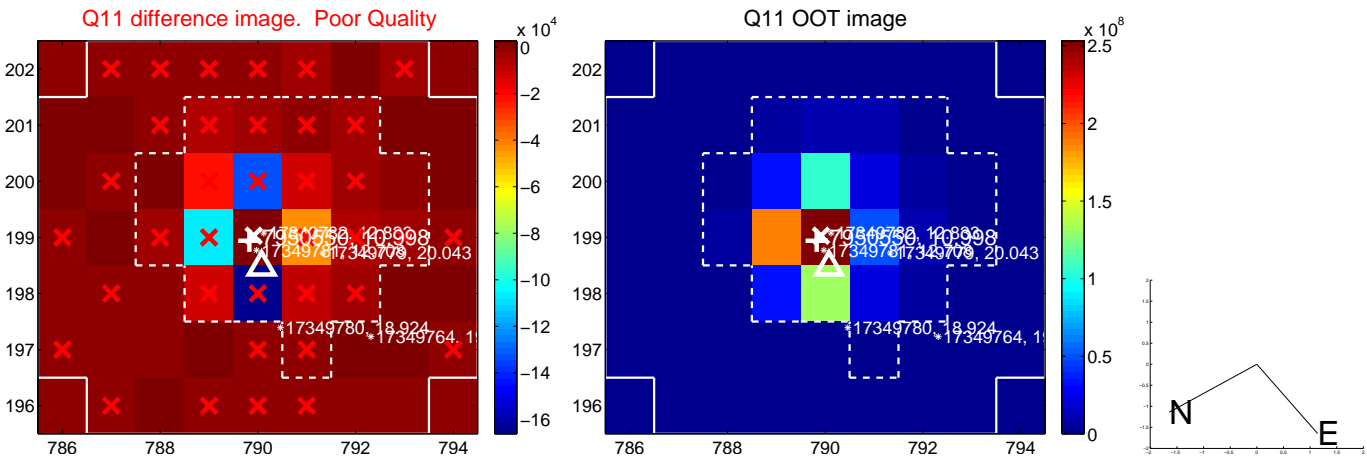
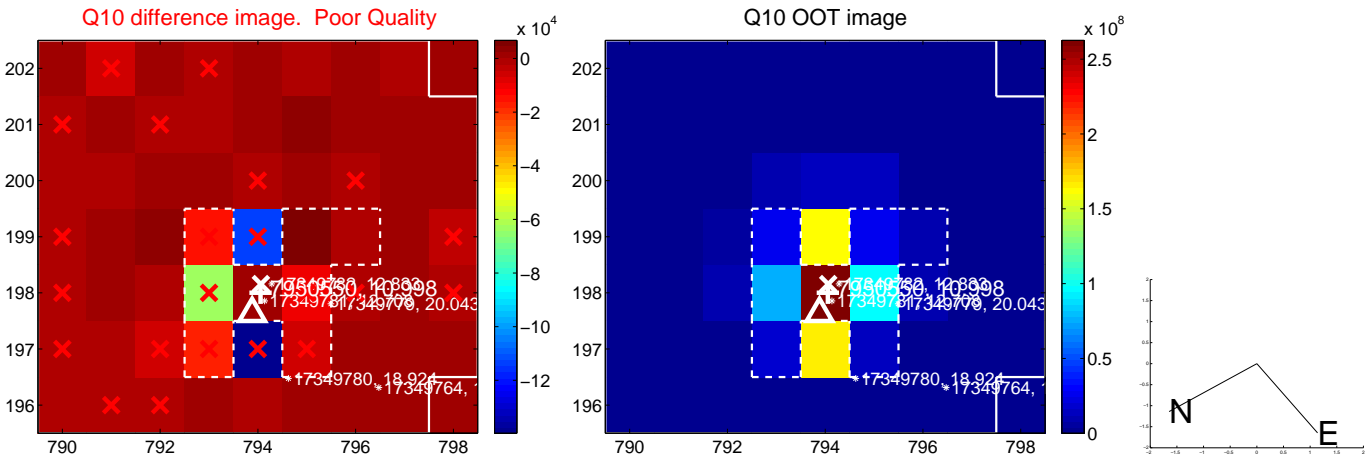
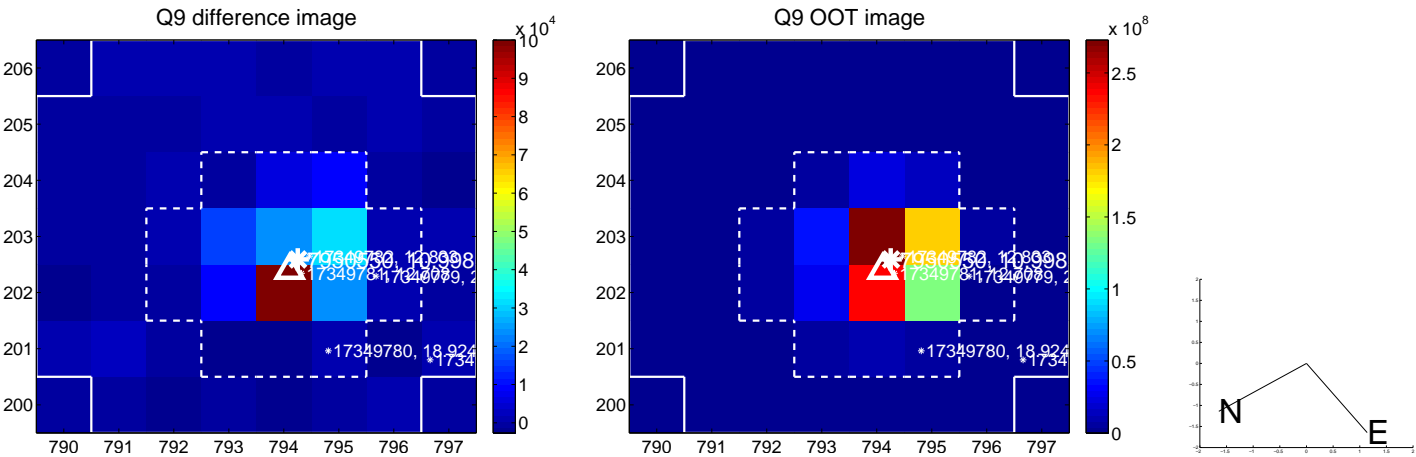
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



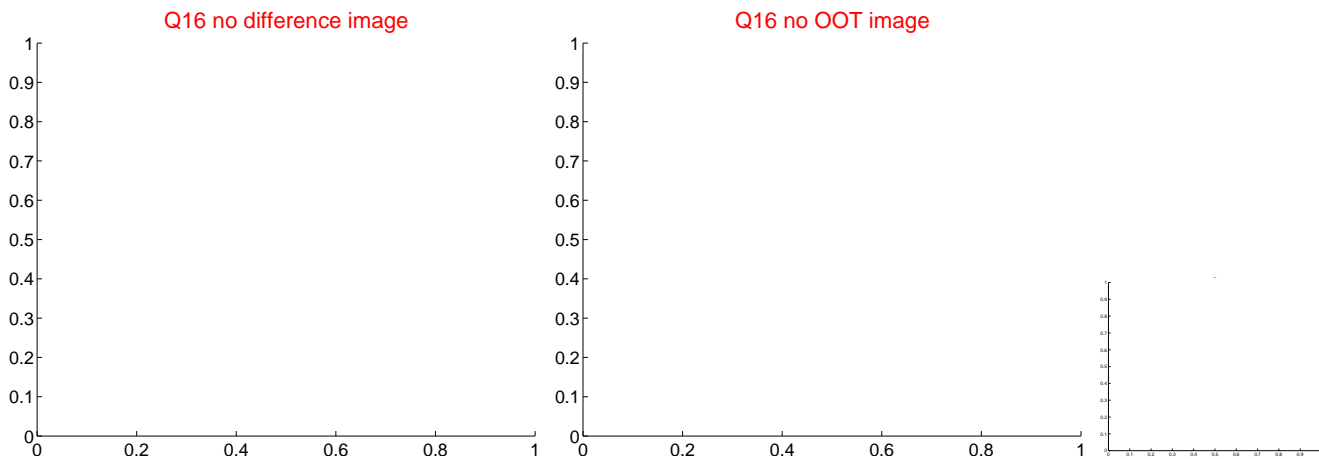
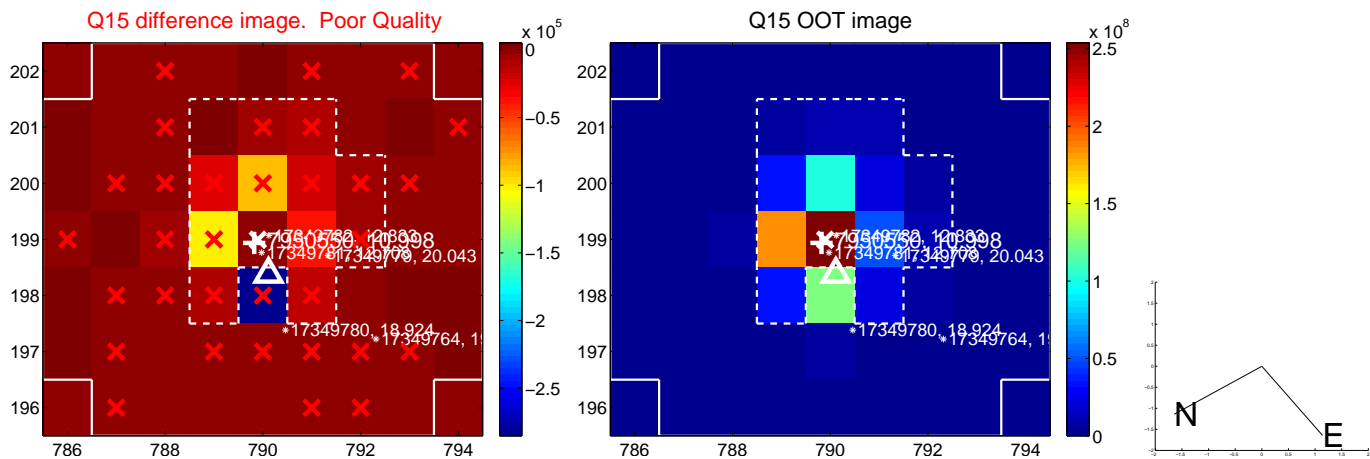
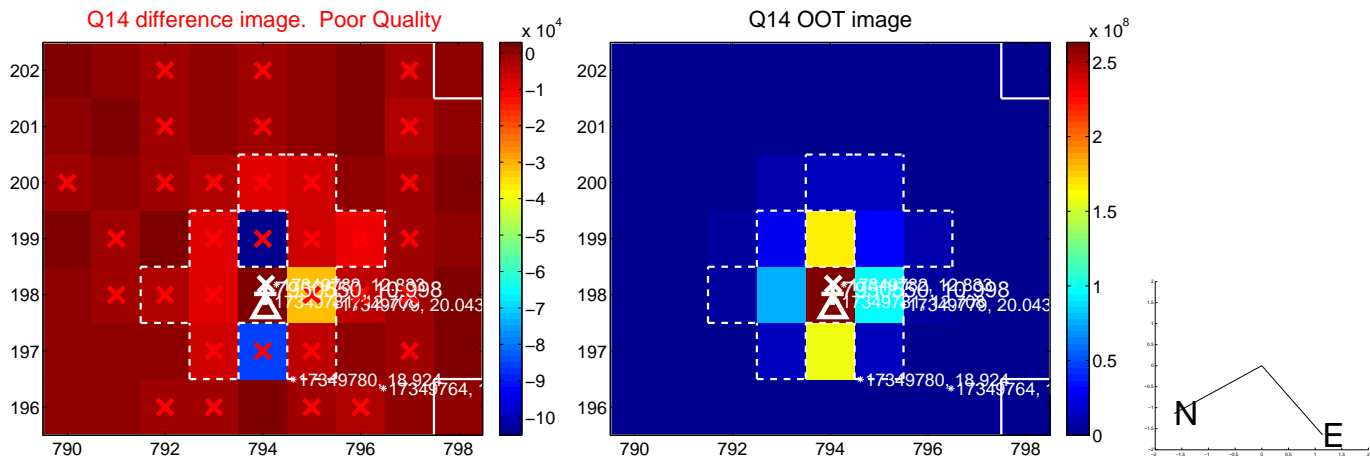
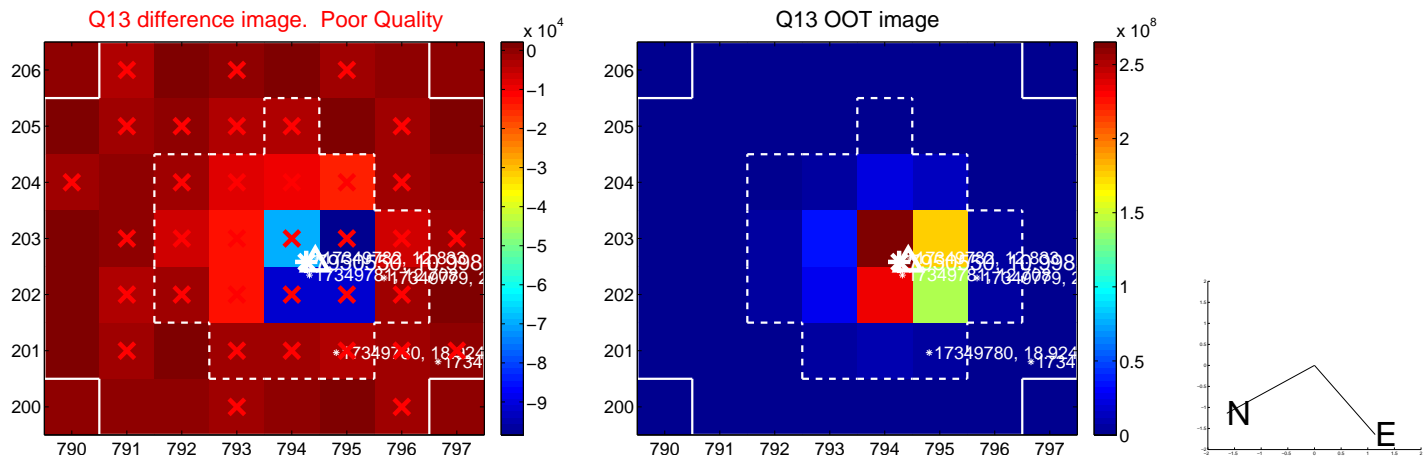
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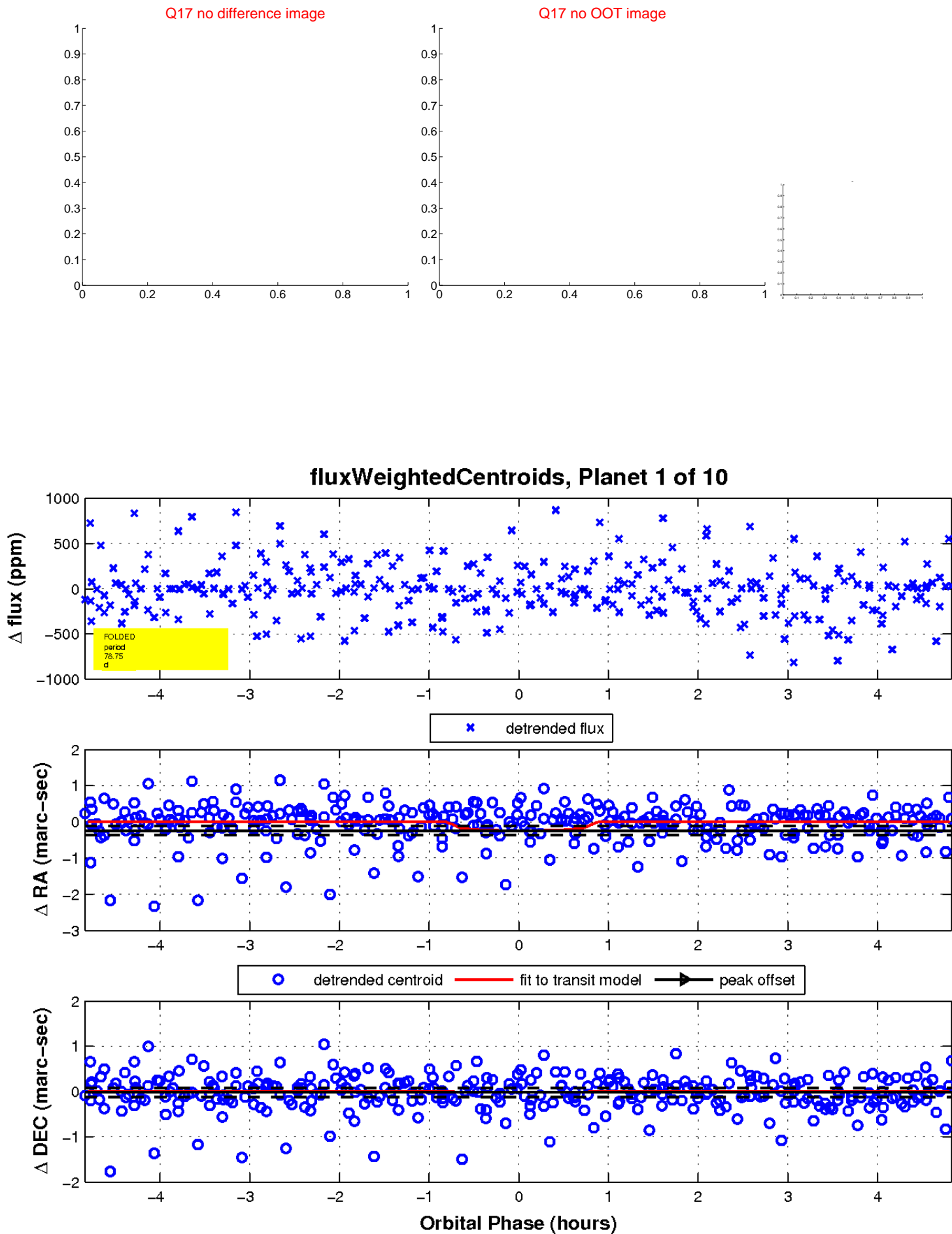
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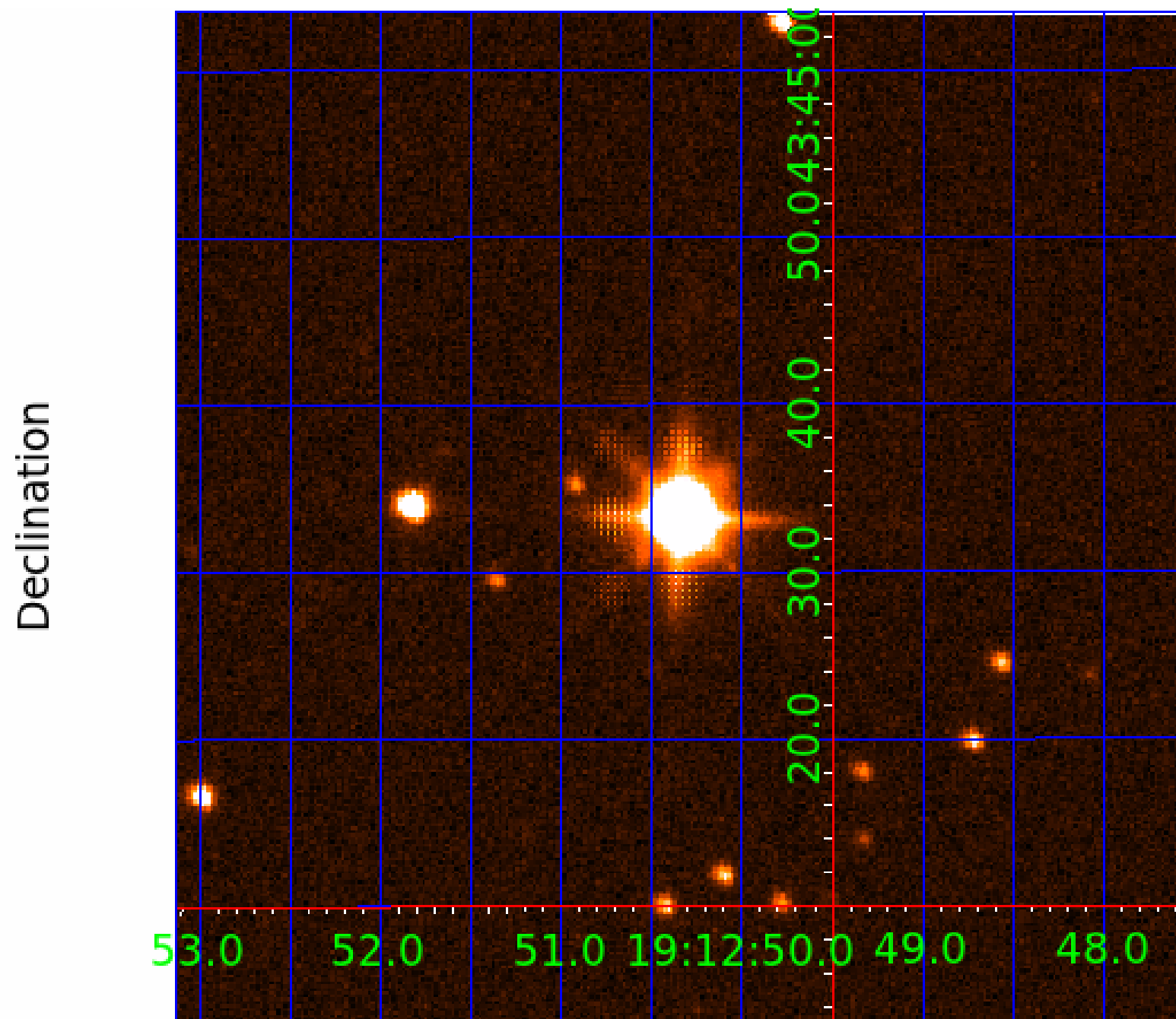
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UKIRT Image



KIC 007950550

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007950550-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS— CENT_SATURATED
007950550-06	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT— CENT_SATURATED—HALO_GHOST
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N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

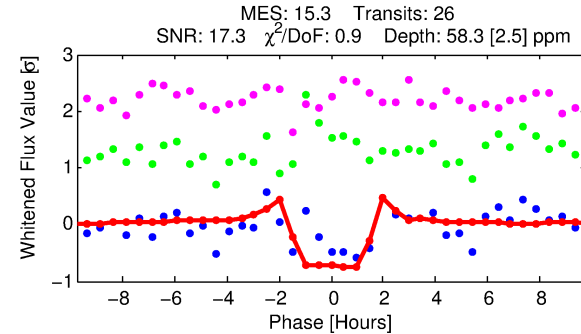
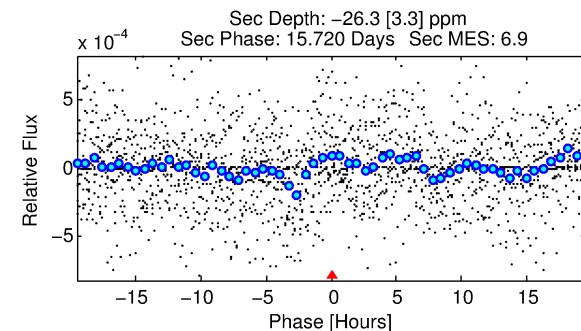
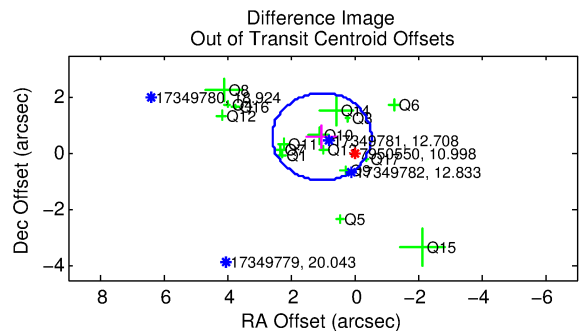
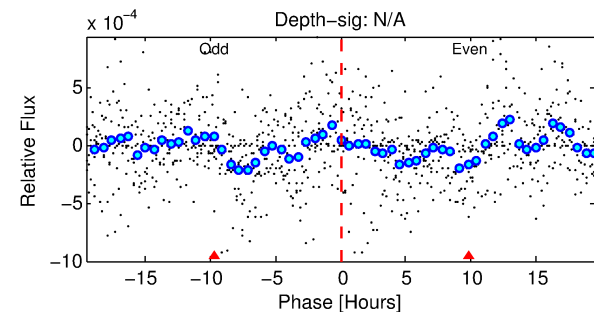
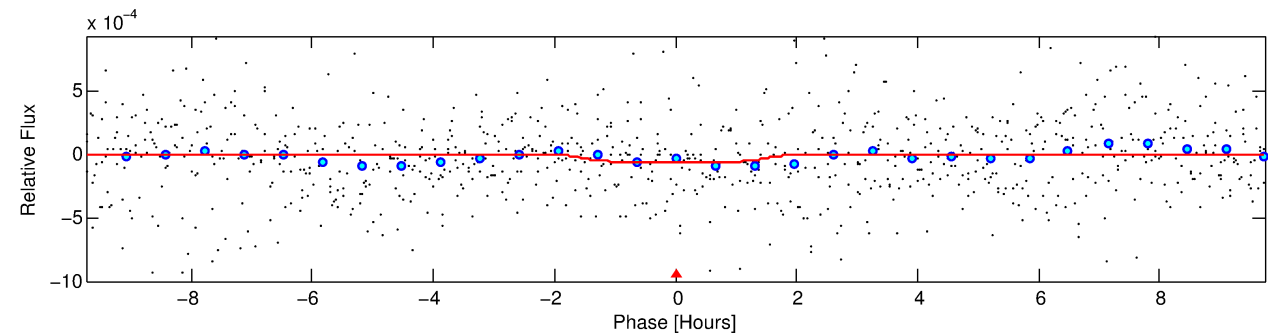
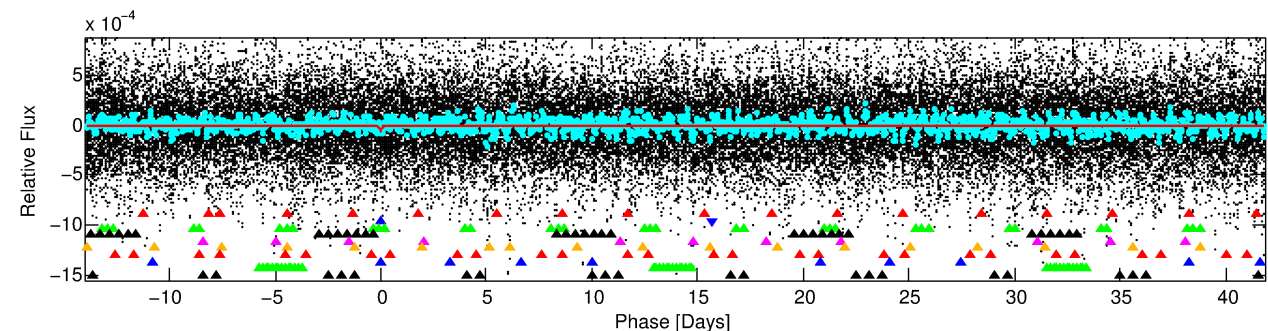
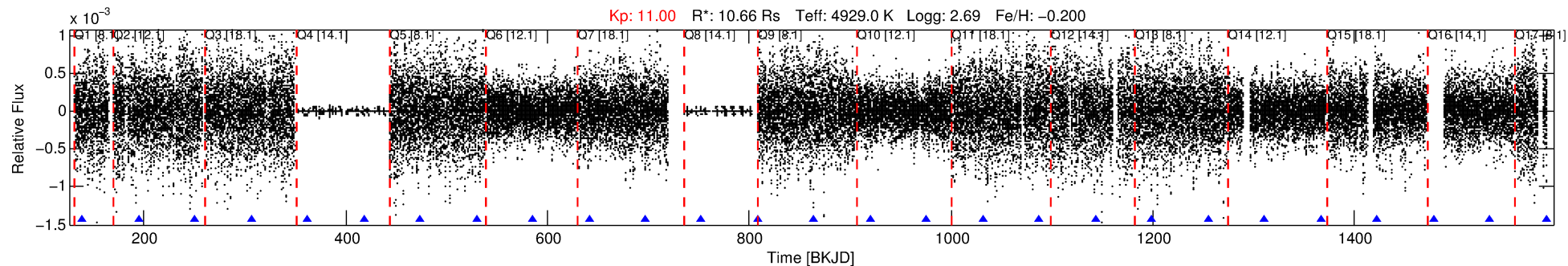
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007950550-02

No Significant Match Found

DV One-Page Summary

KIC: 7950550 Candidate: 2 of 10 Period: 55.809 d



DV Fit Results:

Period = 55.80855 [0.00039] d
Epoch = 138.8721 [0.0029] BKJD
Rp/R* = 0.0081 [0.0020]
a/R* = 72.83 [67.19]
b = 0.84 [0.33]
Seff = 459.99 [91.78]
Teff = 1181 [59] K
Rp = 9.37 [3.22] Re
a = 0.3613 [0.0585] AU
Ag = N/A
Teffp = N/A

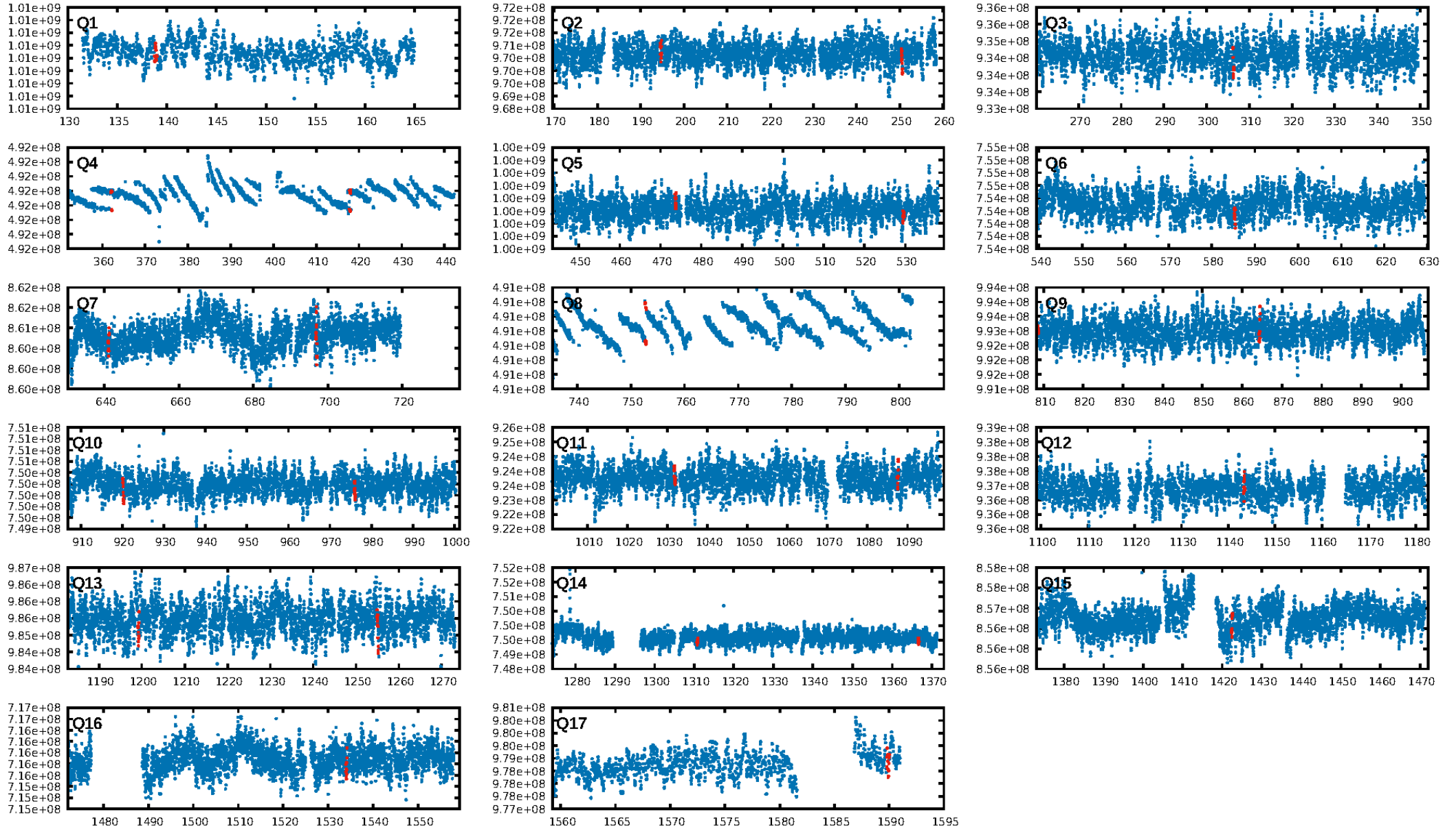
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [25.87σ]
LongPeriod-sig: 100.0% [48.07σ]
ModelChiSquare2-sig: 62.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [24/24]
GhostDiagnostic-chr: -0.1012
Centroid-sig: 12.7%
Centroid-so: 2.219 arcsec [1.50σ]
OotOffset-rm: 1.185 arcsec [2.28σ]
KicOffset-rm: 1.323 arcsec [2.65σ]
OotOffset-st: 3/4/4/5 [16]
KicOffset-st: 3/4/4/5 [16]
DiffImageQuality-fgm: 0.62 [10/16]
DiffImageOverlap-fno: 0.88 [15/17]

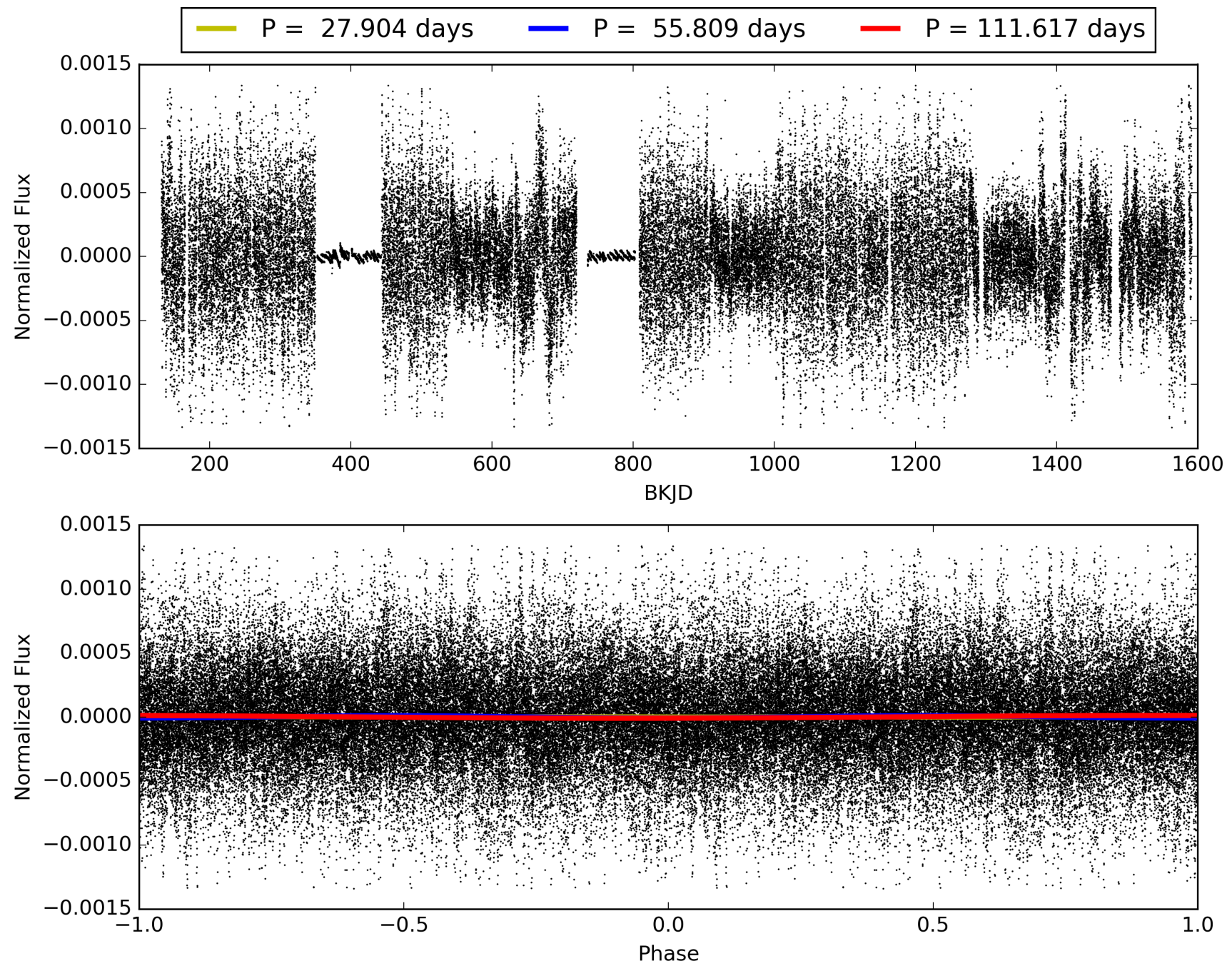
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:45:56 Z

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

TCE 007950550-02, PDC Light Curves

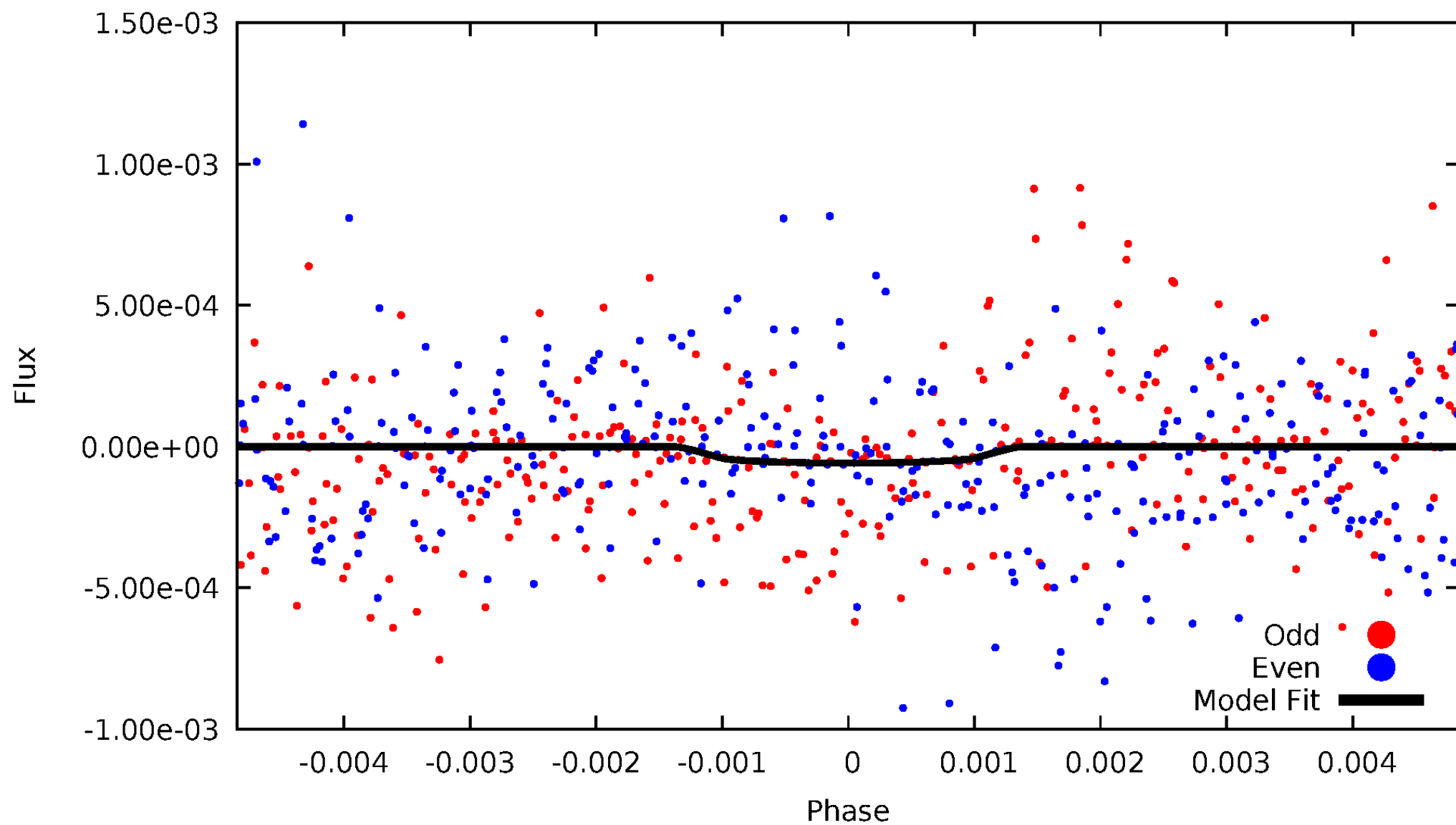


TCE 007950550-02



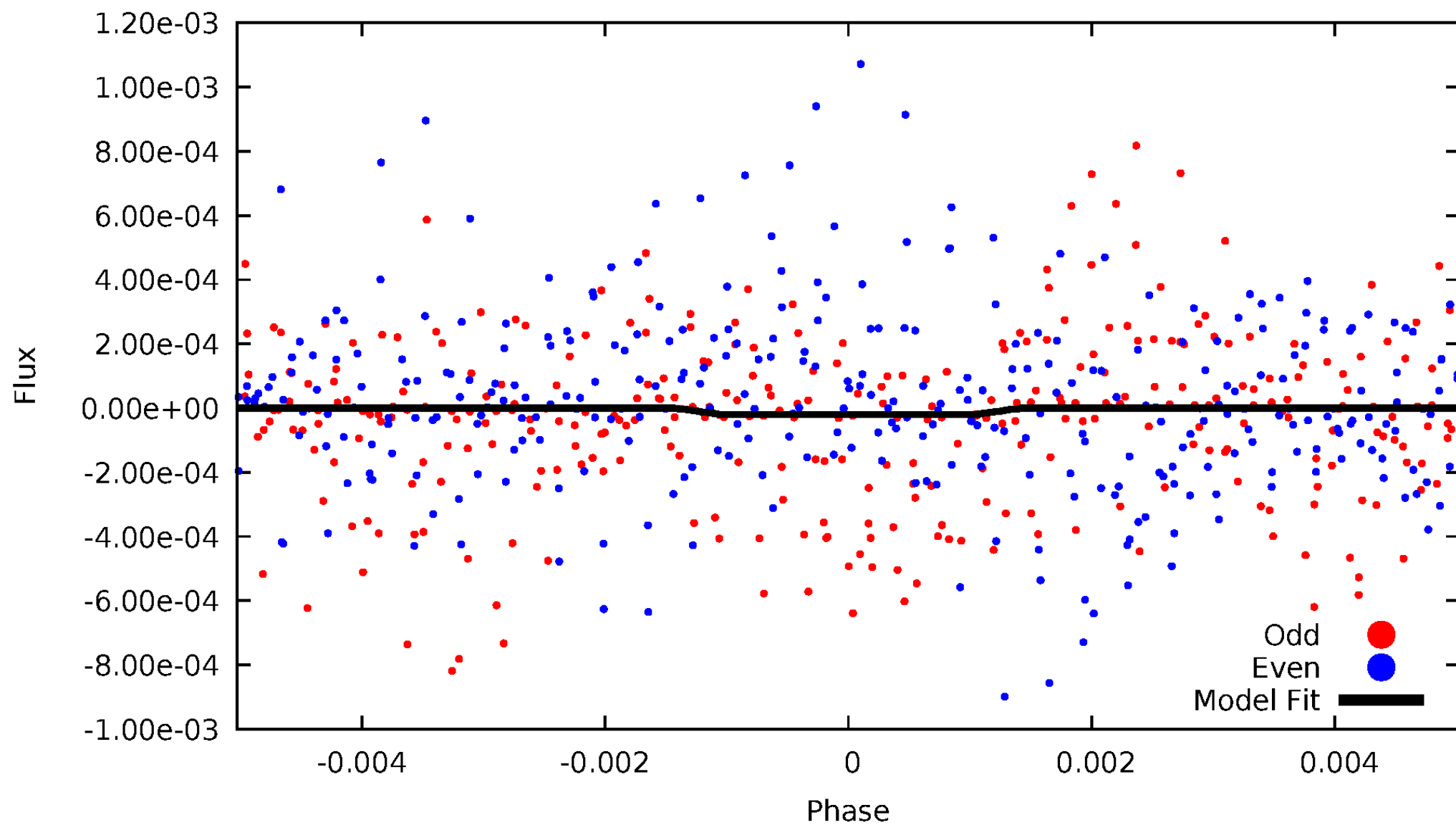
DV Odd/Even

TCE 007950550-02



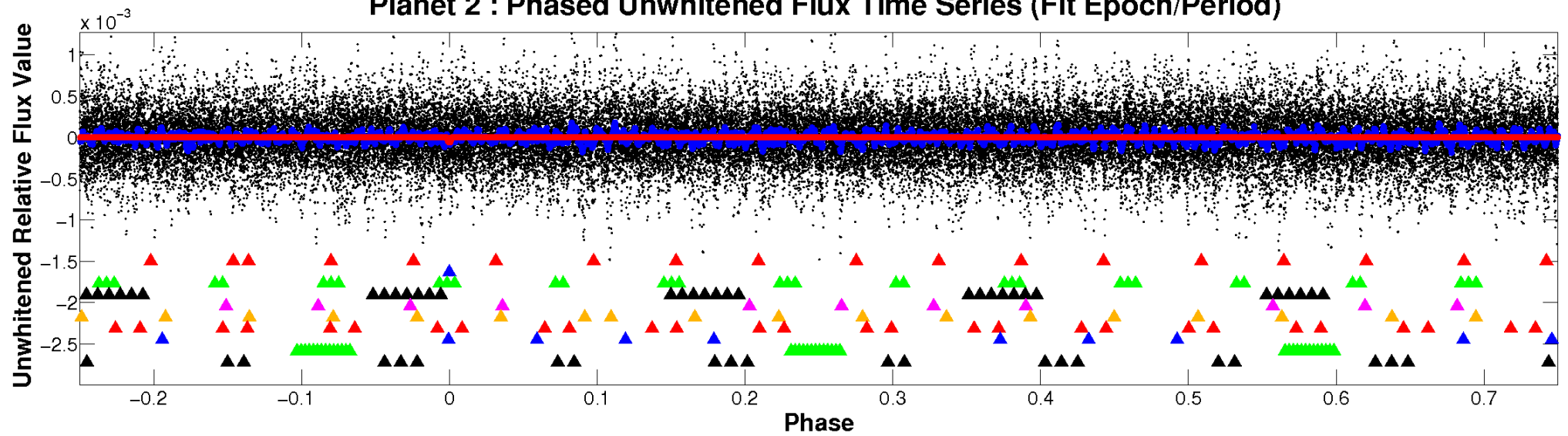
ALT Odd/Even

TCE 007950550-02

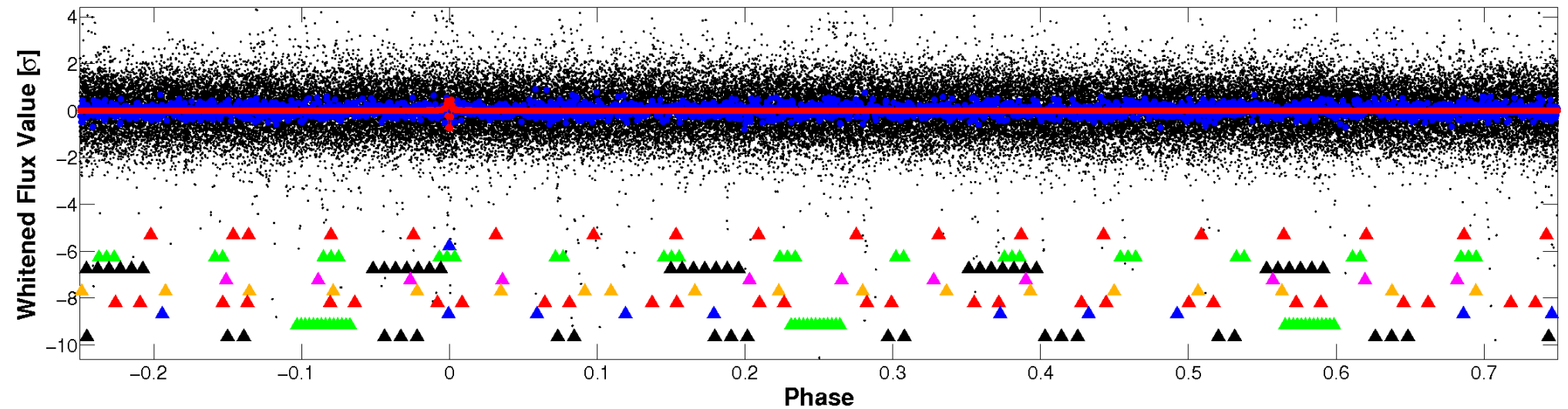


Non-Whitened Vs. Whitened Light Curve

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

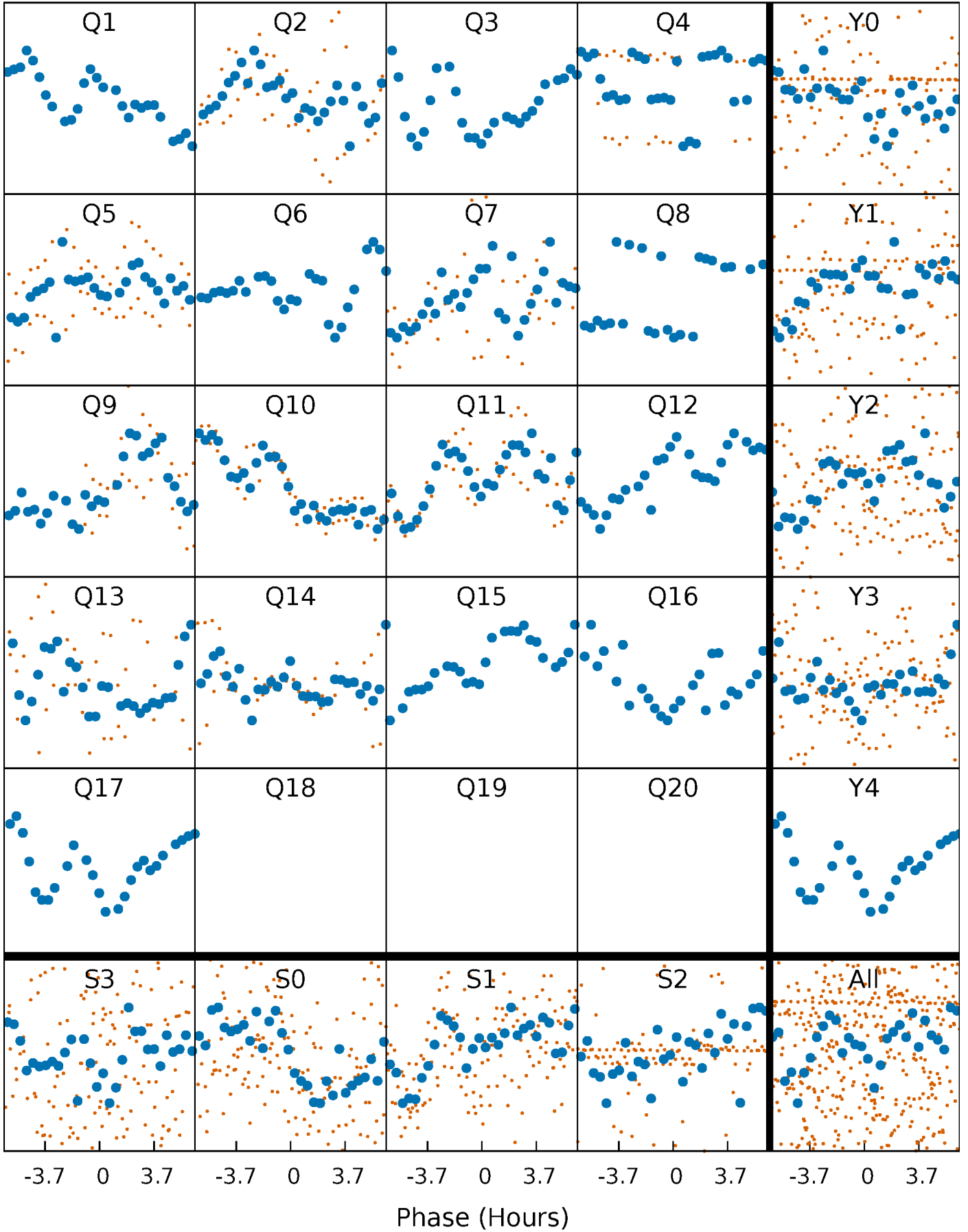


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



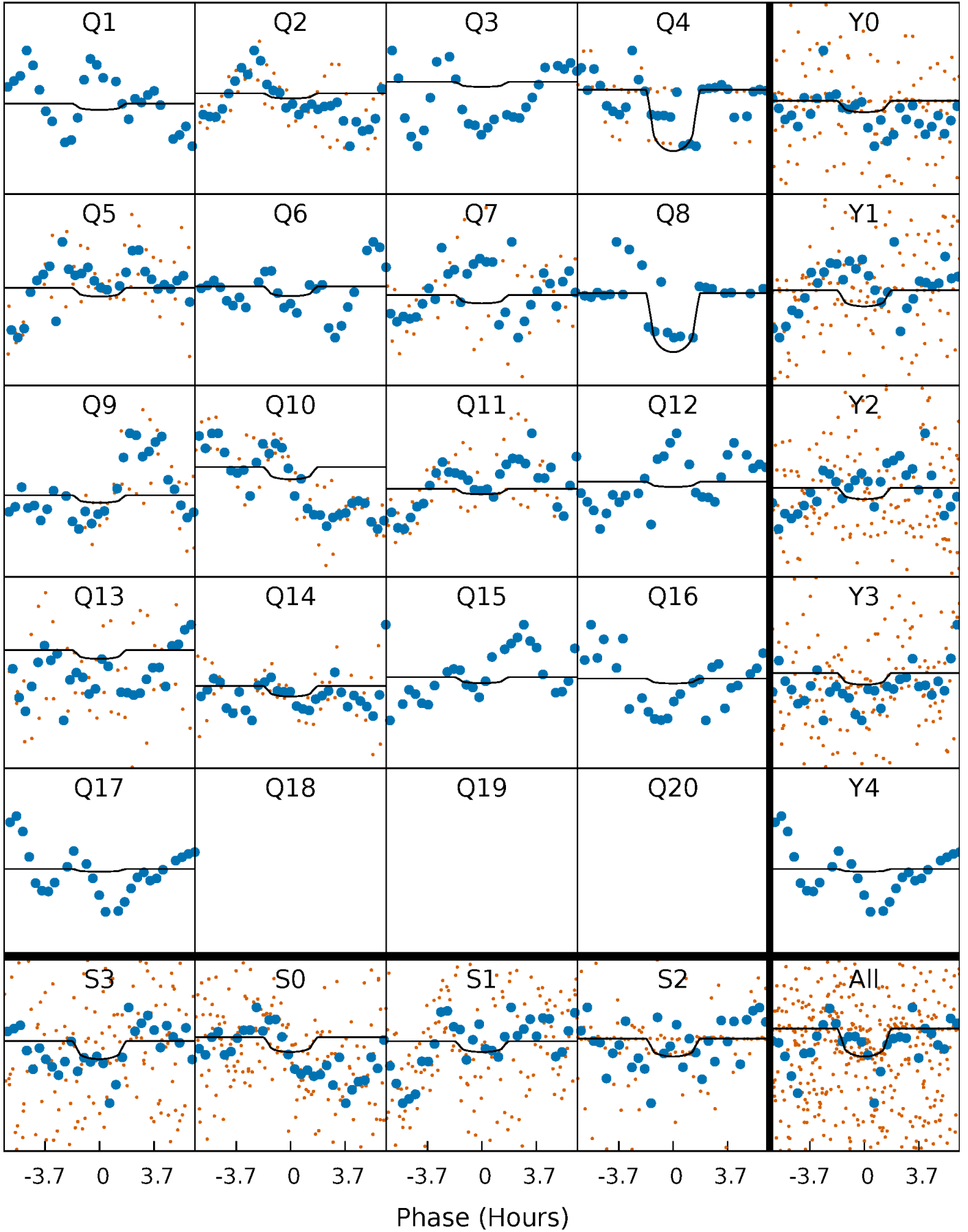
PDC Quarter-Phased Transit Curves

TCE 007950550-02 P= 55.808550 Days $T_0=138.872074$ (BKJD)



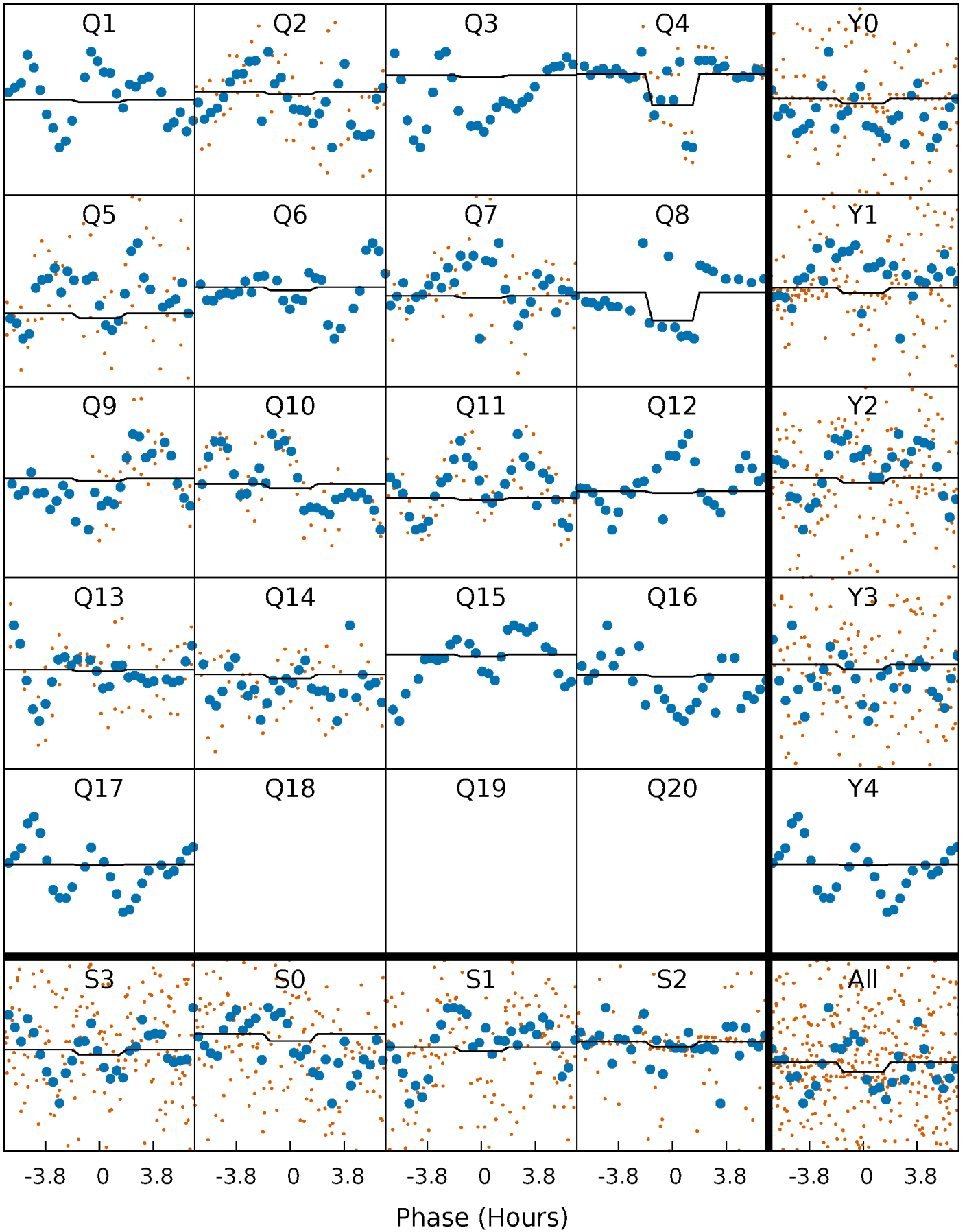
DV Quarter-Phased Transit Curves

TCE 007950550-02 P= 55.808550 Days $T_0=138.872074$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

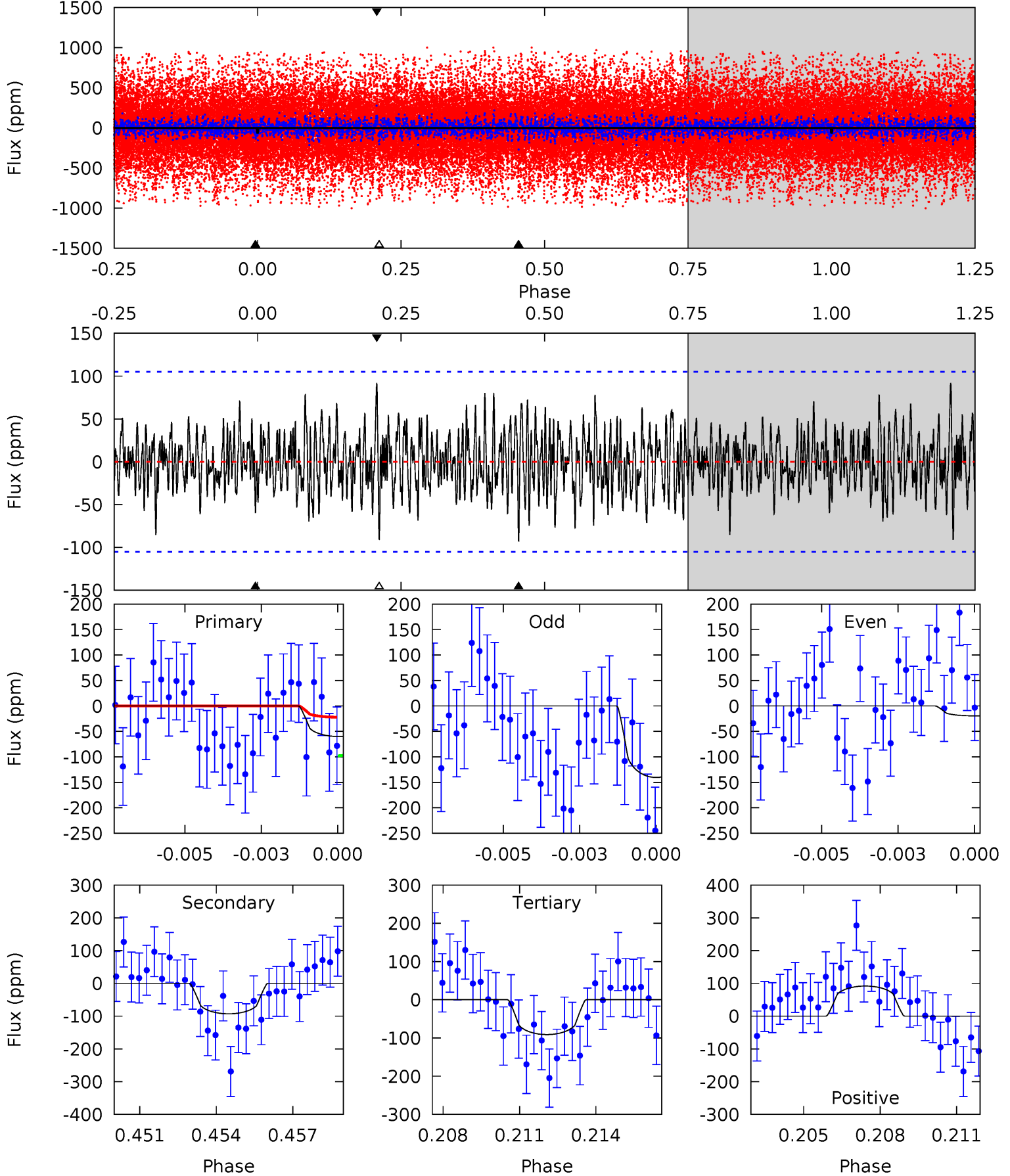
TCE 007950550-02 P= 55.806451 Days $T_0=138.879128$ (BKJD)



DV Model-Shift Uniqueness Test

007950550-02, P = 55.808550 Days, E = 83.063524 Days

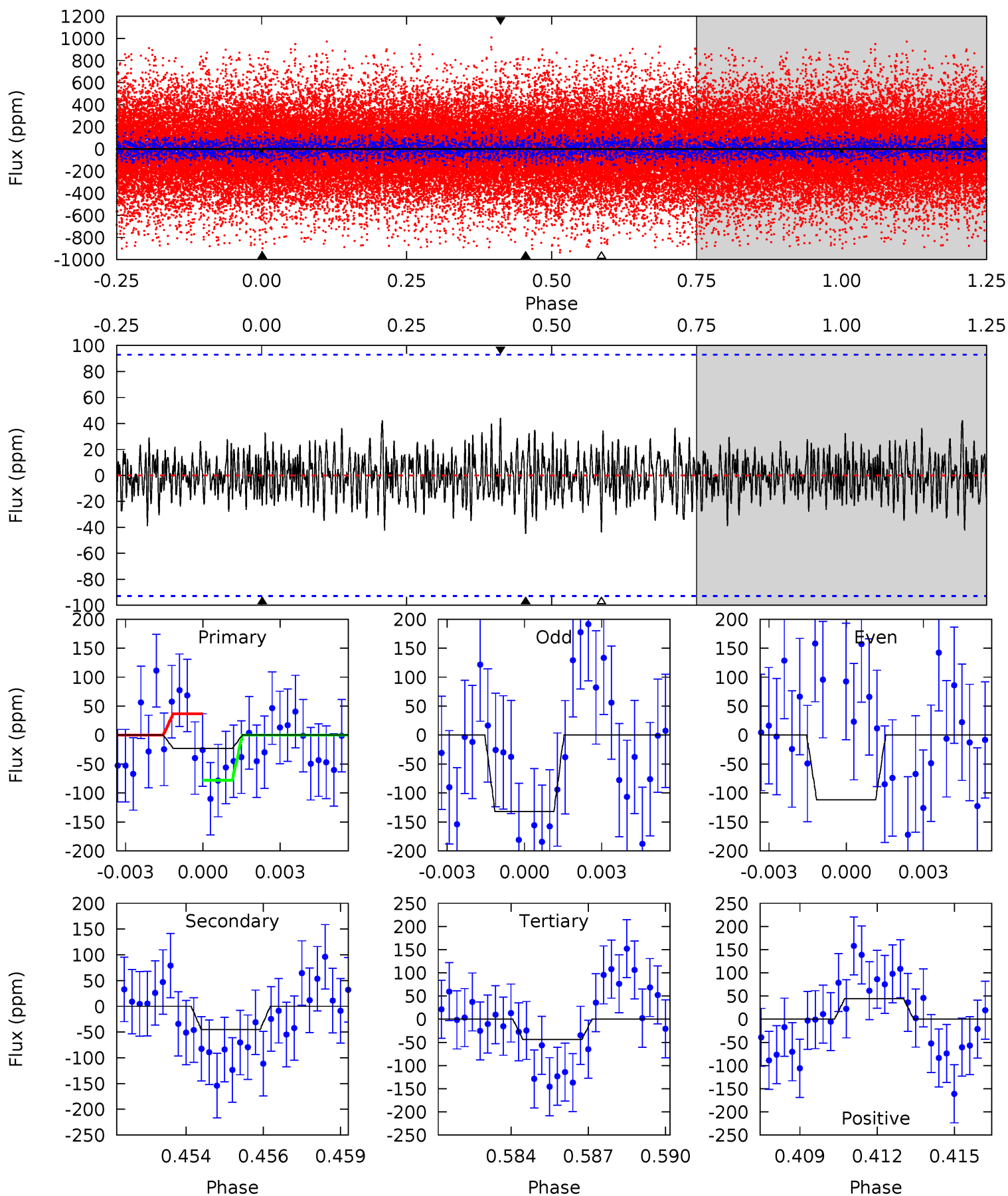
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.00	4.66	4.57	4.61	5.27	3.00	1.50	-1.57	-1.60	0.09	0.05	3.05	1.97	0.50	1.91



Alt Model-Shift Uniqueness Test

007950550-02, P = 55.806451 Days, E = 83.072677 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.32	2.55	2.49	2.49	5.27	2.99	0.78	-1.17	-1.17	0.06	0.05	0.58	0.28	0.49	1.17



Stellar Parameters For KIC 007950550

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4929^{+38}_{-135}	$2.688^{+0.030}_{-0.030}$	$-0.200^{+0.100}_{-0.150}$	$10.657^{+1.098}_{-2.562}$	$2.022^{+0.770}_{-0.847}$	$0.002^{+0.001}_{-0.000}$
	+1%/-3%	+1%/-1%	+50%/-75%	+10%/-24%	+38%/-42%	+34%/-9%
Source	PHO55	AST55	SPE55	DSEP		

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

Secondary Eclipse Parameters for KIC 007950550-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-93 ± 20	$9.43^{+2.43}_{-2.54}$	1646^{+38}_{-57}	5255^{+762}_{-516}	75^{+57}_{-29}
Alt.	-45 ± 18	$4.90^{+2.54}_{-2.13}$	1643^{+39}_{-55}	5934^{+2401}_{-1085}	127^{+318}_{-75}

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

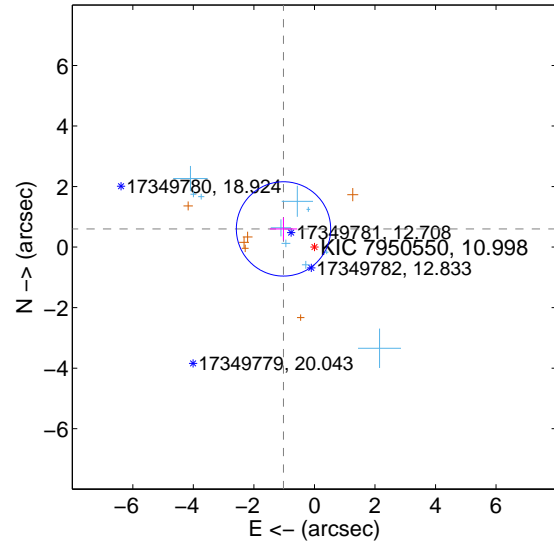
Supplemental centroid analysis for 007950550-02. **Kepler magnitude: 11.00.** Transit SNR 17.34

There are 10 quarters with good PRF difference image offsets

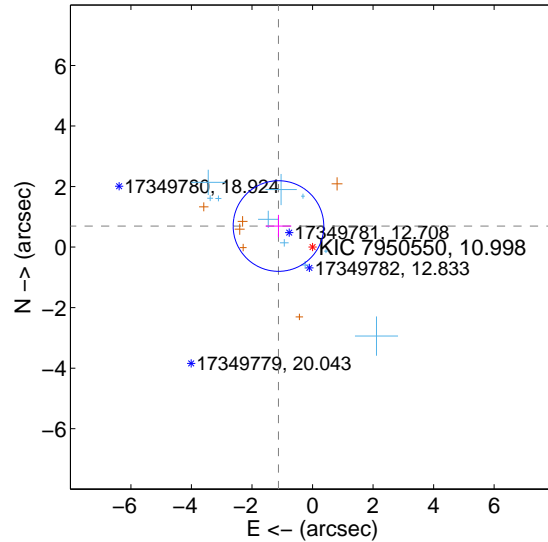
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.185 ± 0.519	2.28	1.022 ± 0.452	0.601 ± 0.374
PRF-fit source offset from KIC position	1.323 ± 0.499	2.65	1.125 ± 0.425	0.696 ± 0.369
photometric centroid source offset	2.22 ± 1.48	1.50	2.20 ± 1.48	0.26 ± 1.23

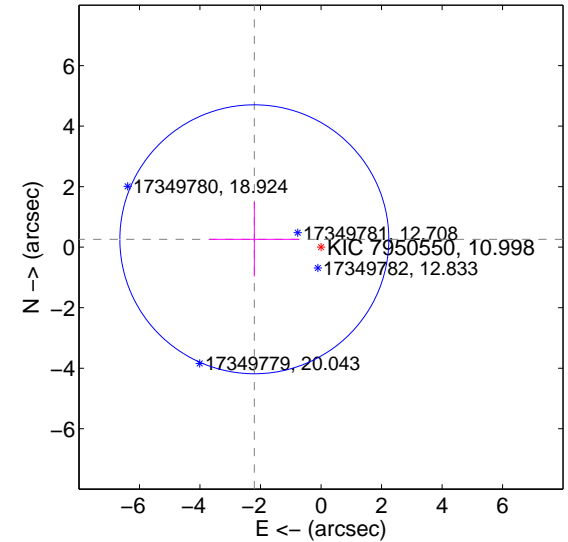
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

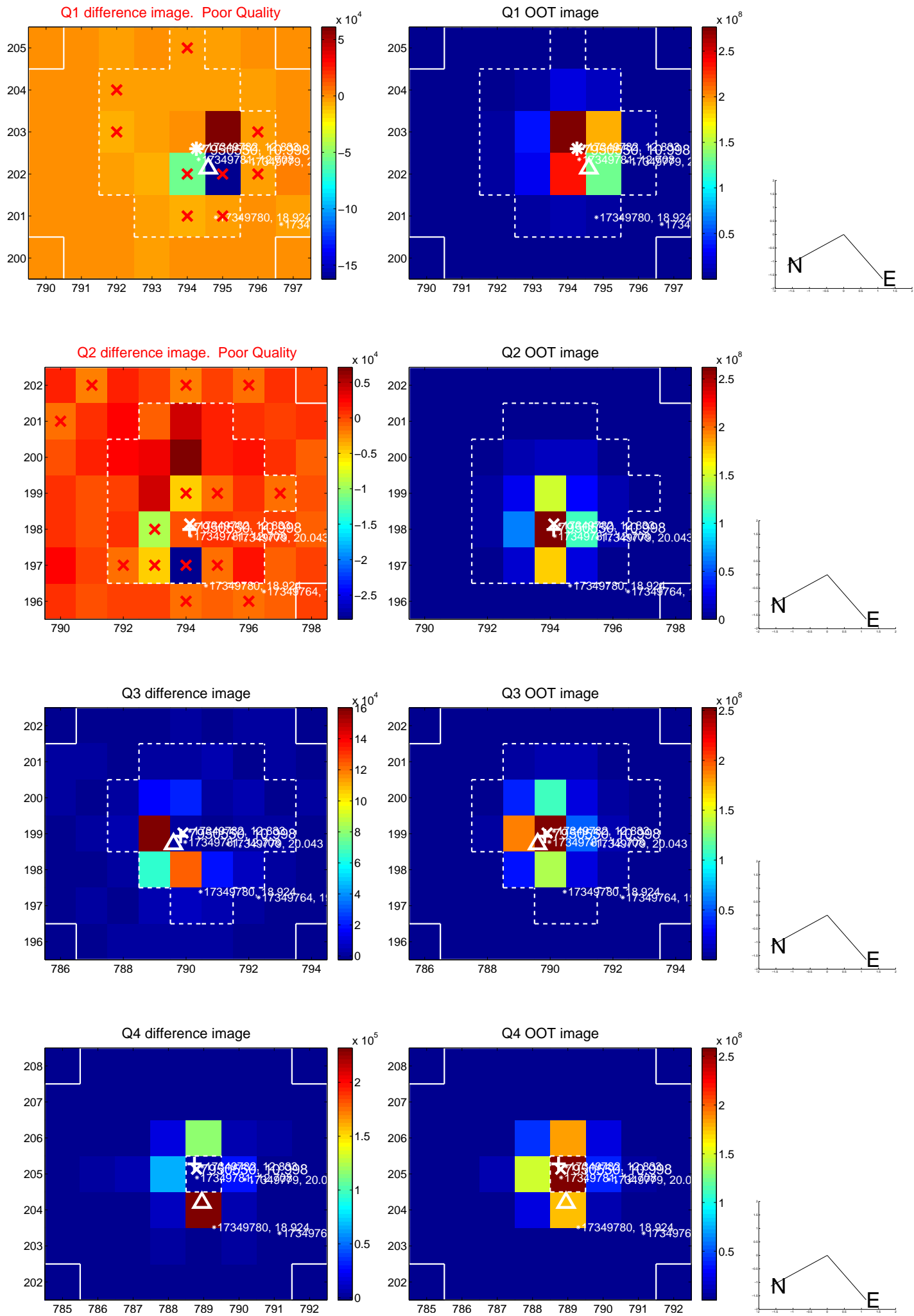


offset from photometric centroids

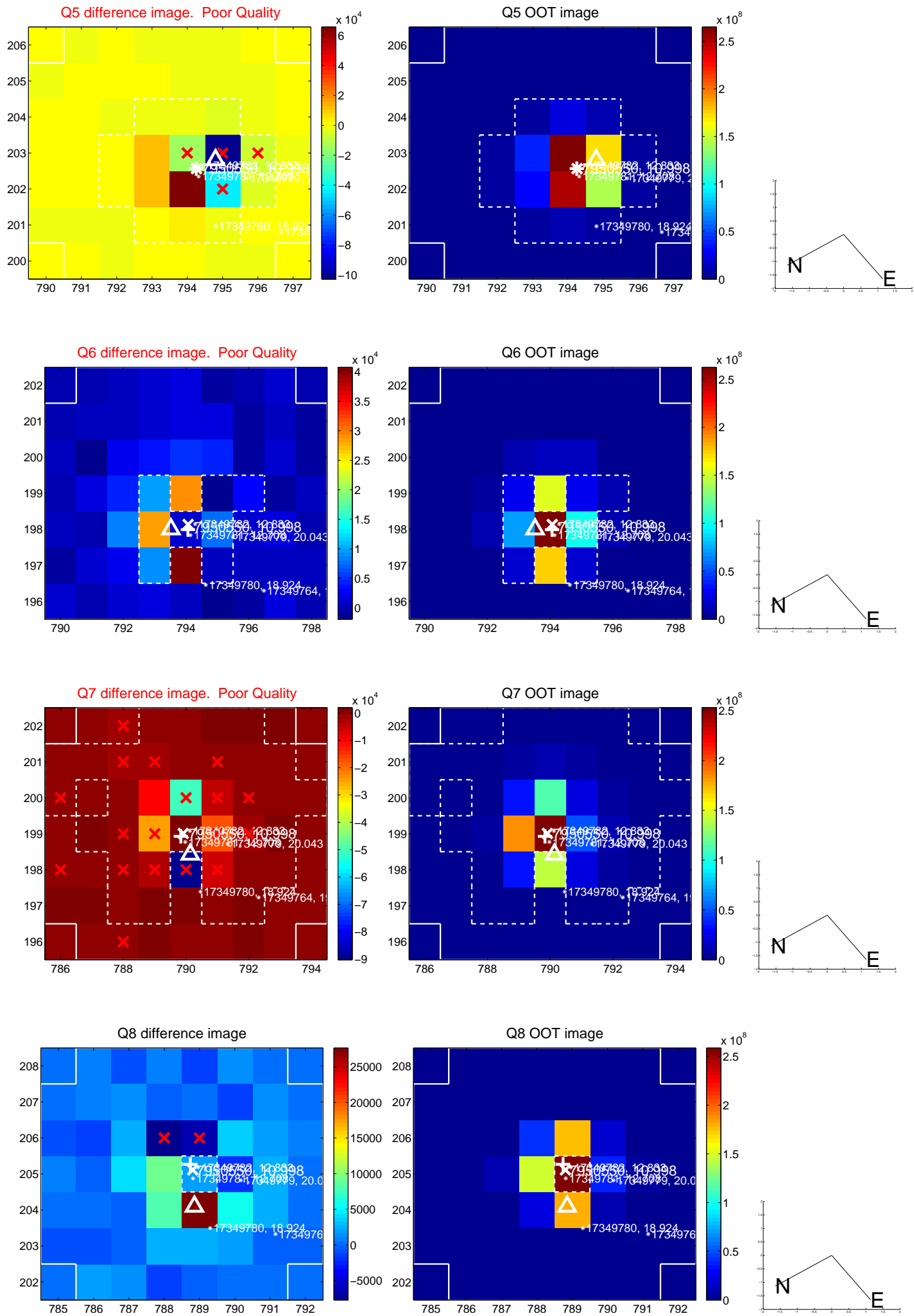


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

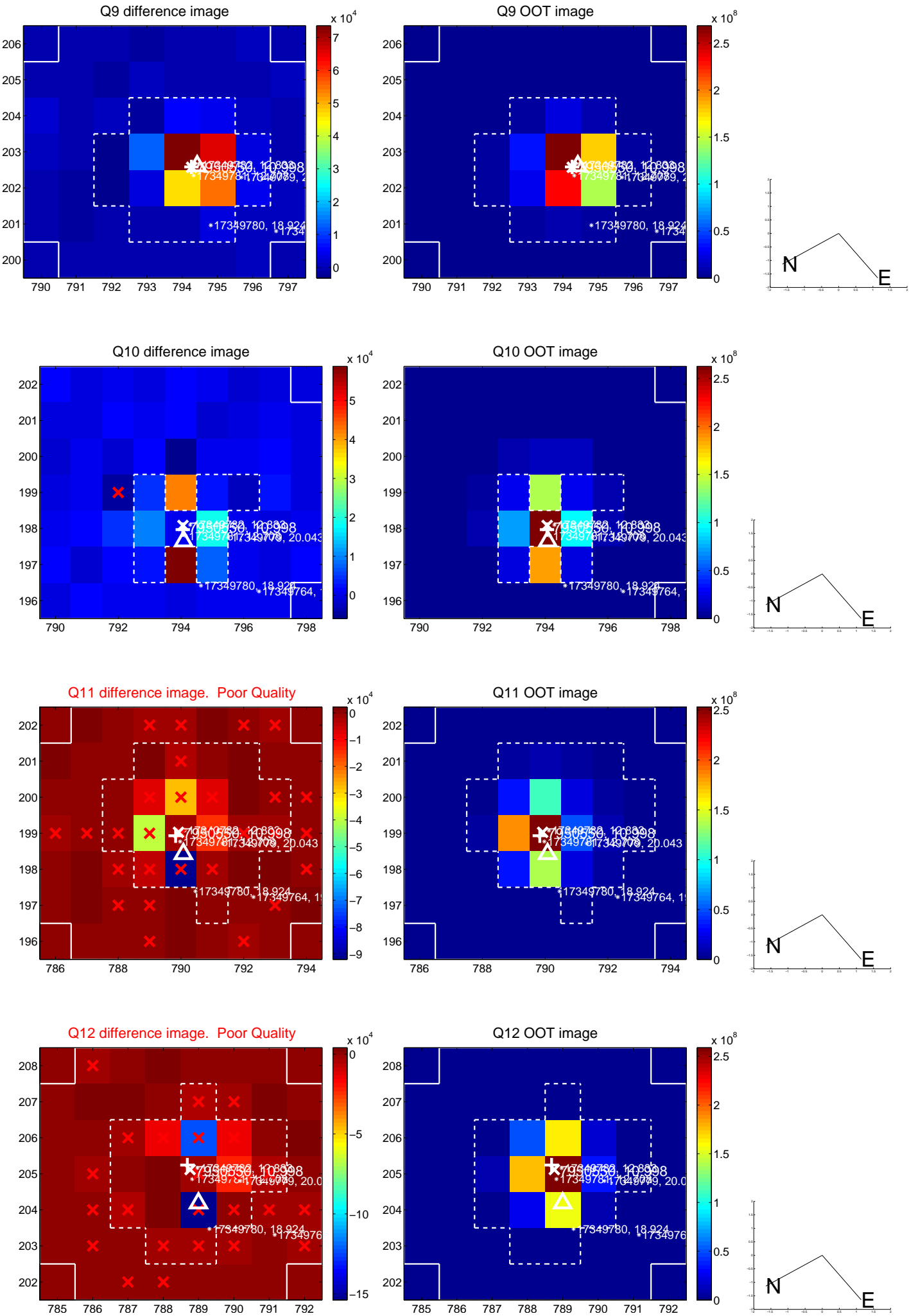
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



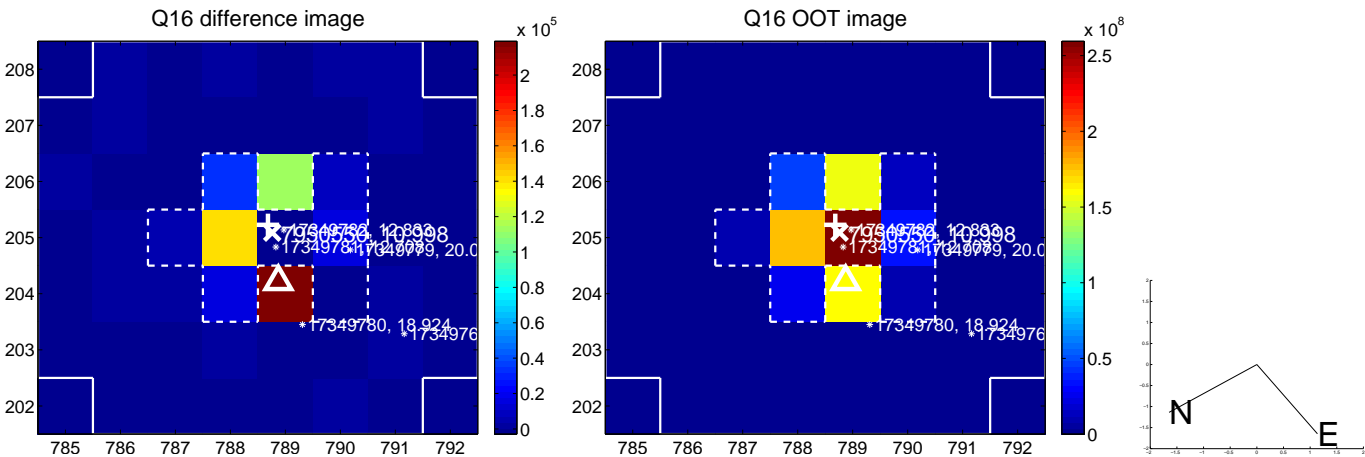
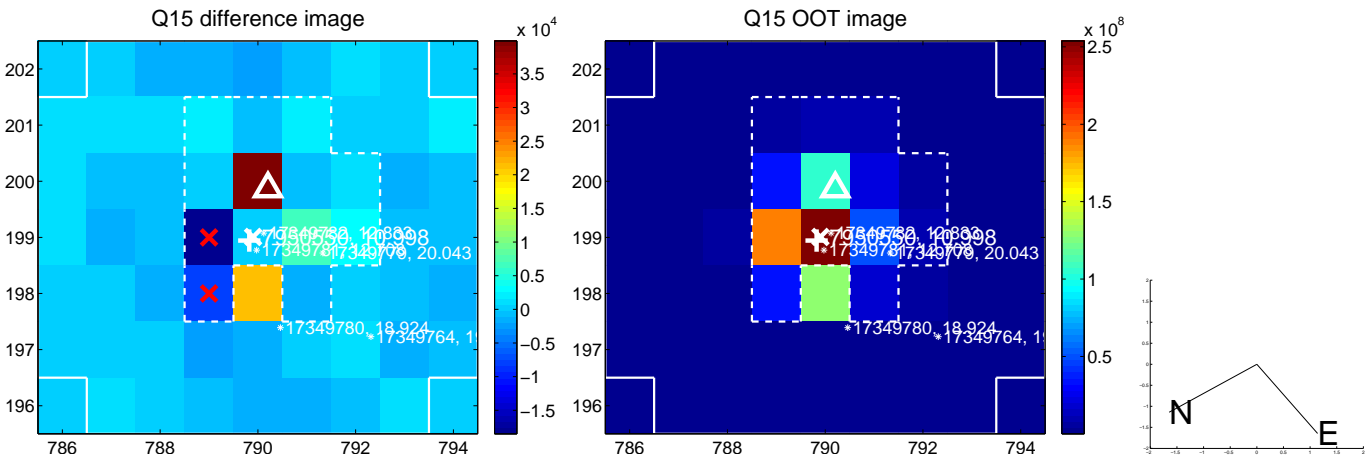
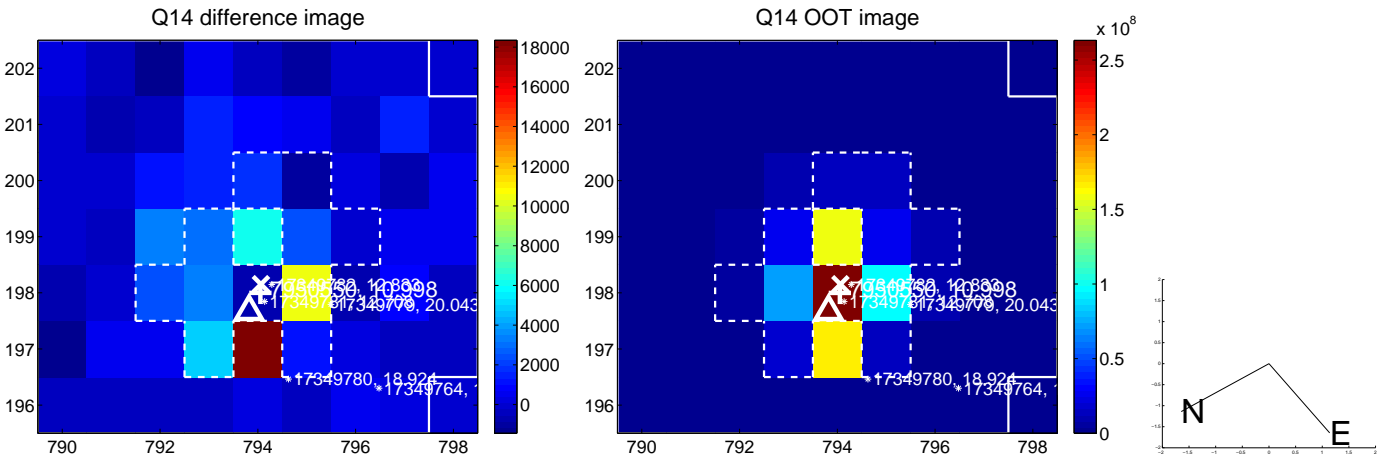
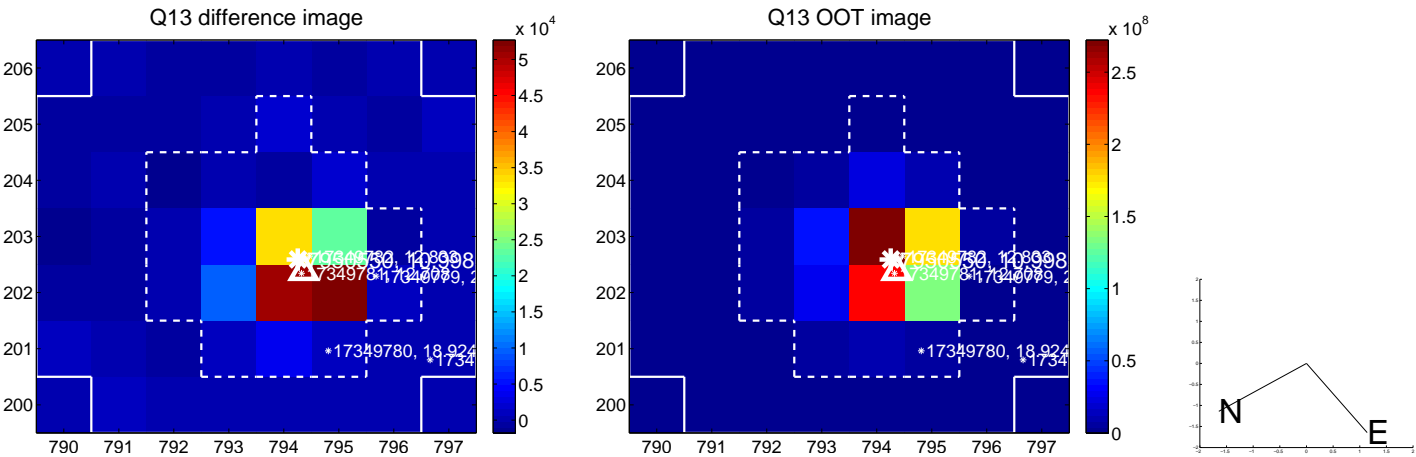
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



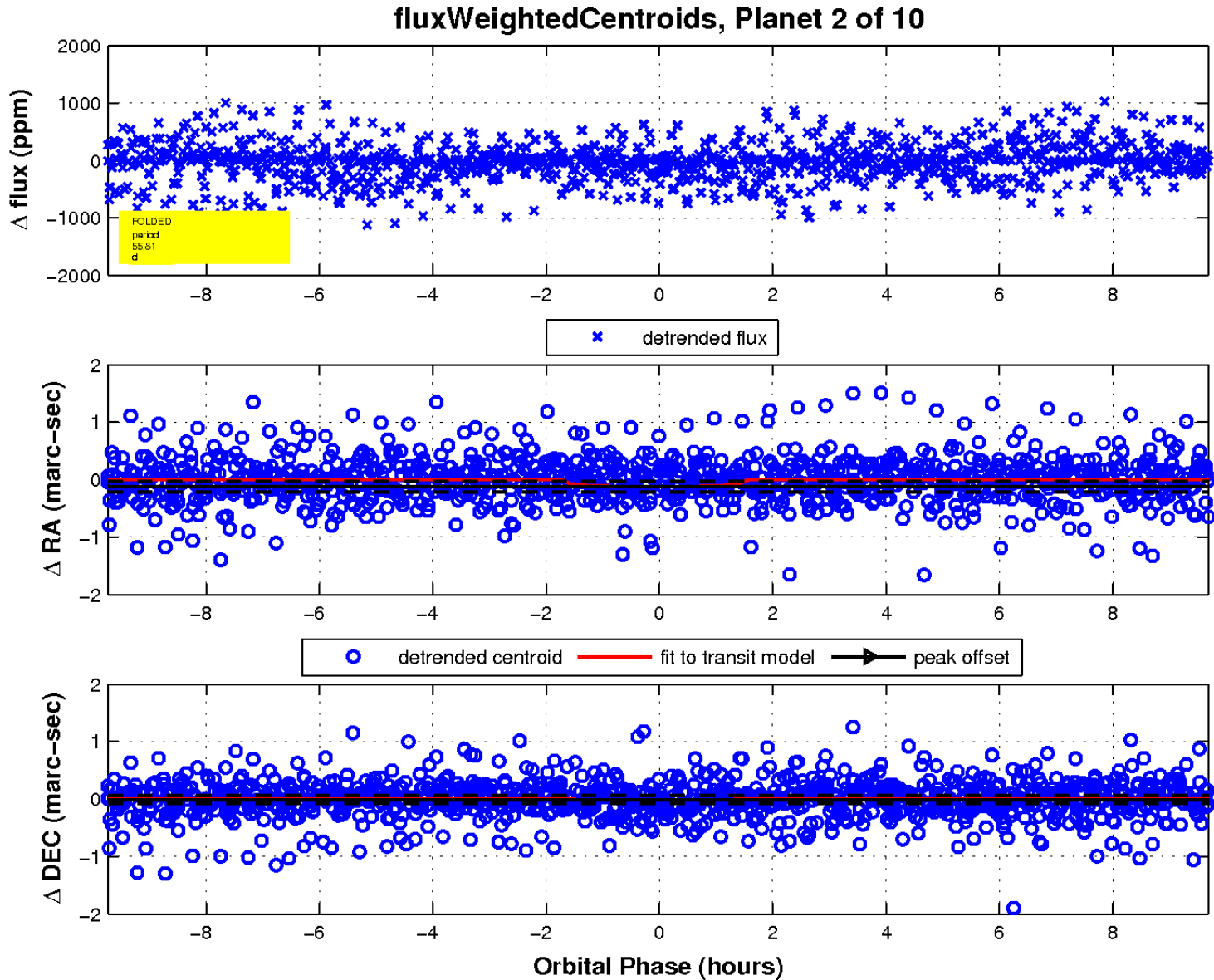
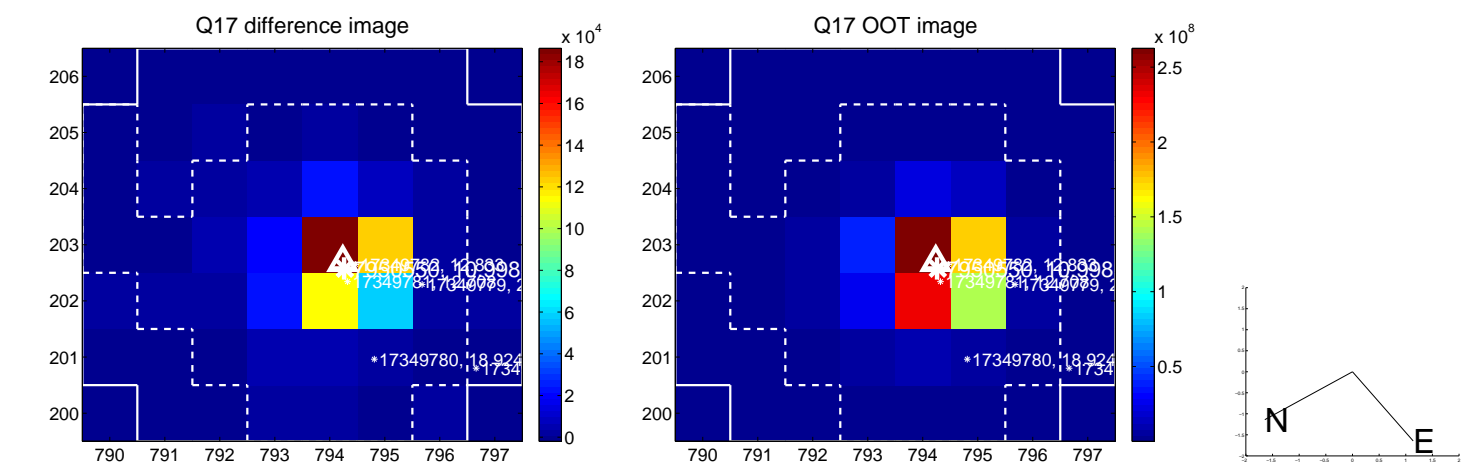
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



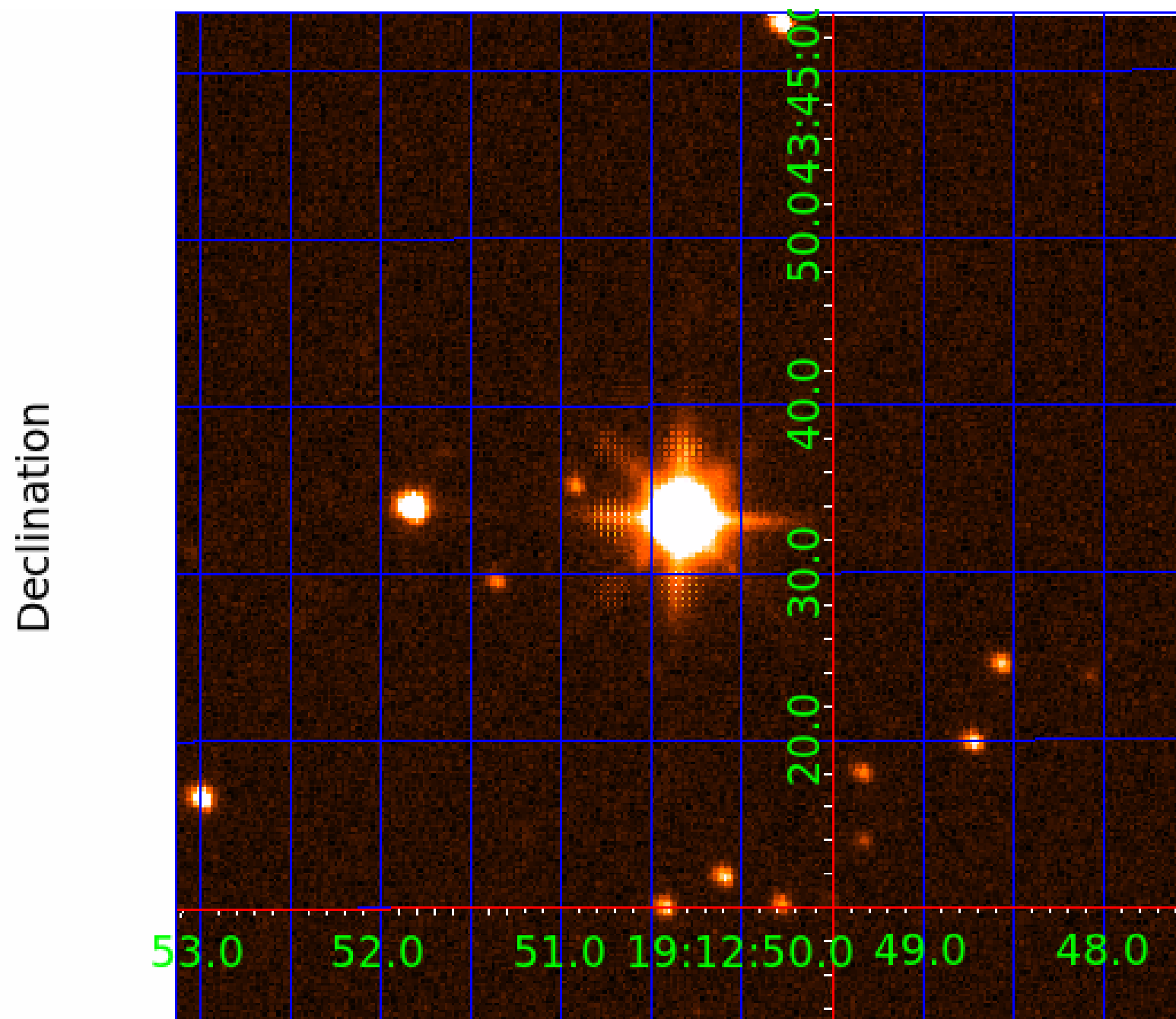
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 007950550

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})
007950550-01	OBS	No	78.754453	187.099506	53.7	1.615	31.6	16.3	10.66	4929	9.55	290.62
007950550-02	OBS	No	55.808550	138.872074	58.3	3.245	15.3	17.3	10.66	4929	9.37	459.99
007950550-03	OBS	No	42.951829	159.829241	41.0	5.498	15.7	11.4	10.66	4929	8.16	652.20
007950550-04	OBS	No	44.561631	161.040643	52.2	1.207	15.2	18.4	10.66	4929	9.53	620.97
007950550-05	OBS	No	131.379320	242.059586	29.5	11.224	15.0	7.7	10.66	4929	6.93	146.89
007950550-06	OBS	No	82.129715	143.985409	37.5	16.367	15.4	8.8	10.66	4929	7.65	274.80
007950550-07	OBS	No	51.755812	179.880861	10.9	1.900	14.1	3.5	10.66	4929	3.63	508.64
007950550-08	OBS	No	149.936248	138.841227	69.5	7.544	22.6	16.5	10.66	4929	10.82	123.16
007950550-09	OBS	No	37.154510	135.118424	21.9	8.813	14.3	8.8	10.66	4929	5.95	791.29
007950550-10	OBS	No	68.278848	136.425466	186.5	5.314	12.6	1.4	10.66	4929	16.52	351.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007950550-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-02	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED— HALO_GHOST
007950550-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS— CENT_SATURATED
007950550-06	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT— CENT_SATURATED—HALO_GHOST
007950550-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_SATURATED
007950550-09	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED— HALO_GHOST
007950550-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT— MOD_POS_ALT—CENT_SATURATED

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

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

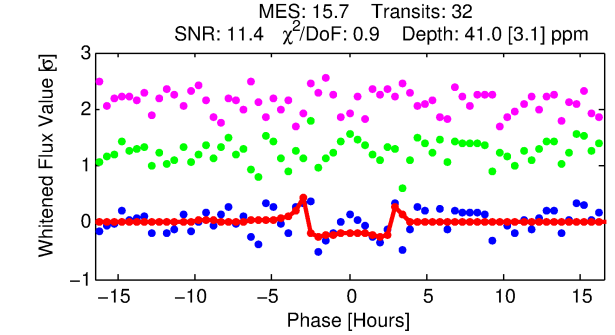
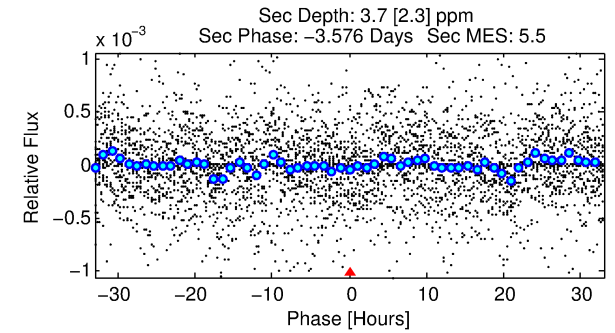
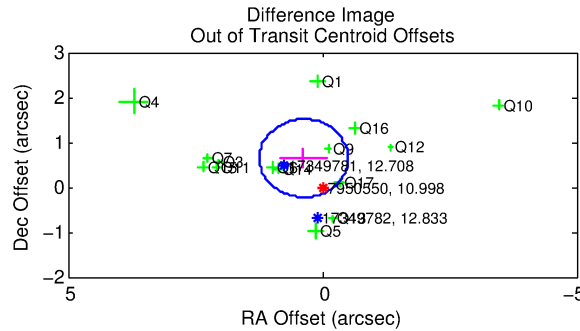
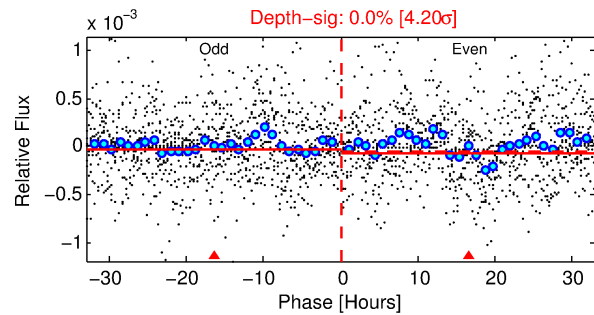
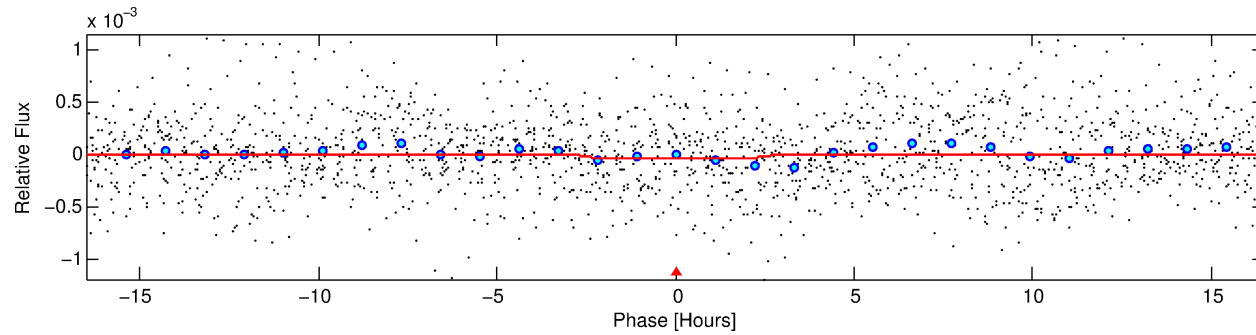
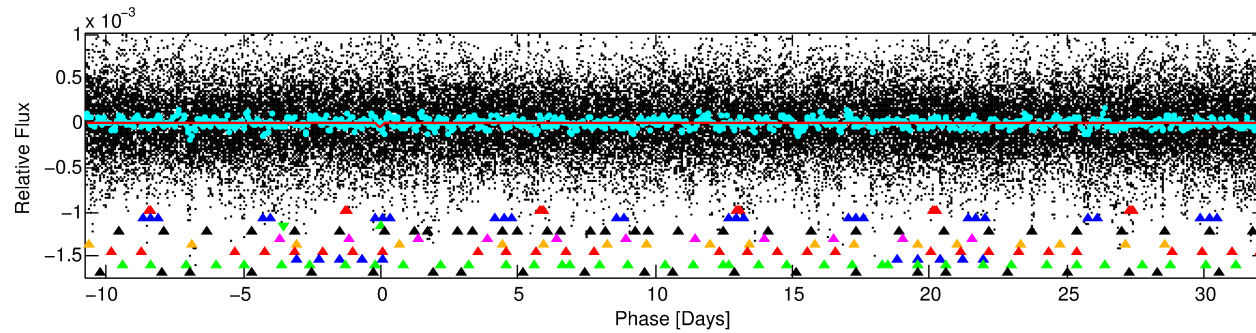
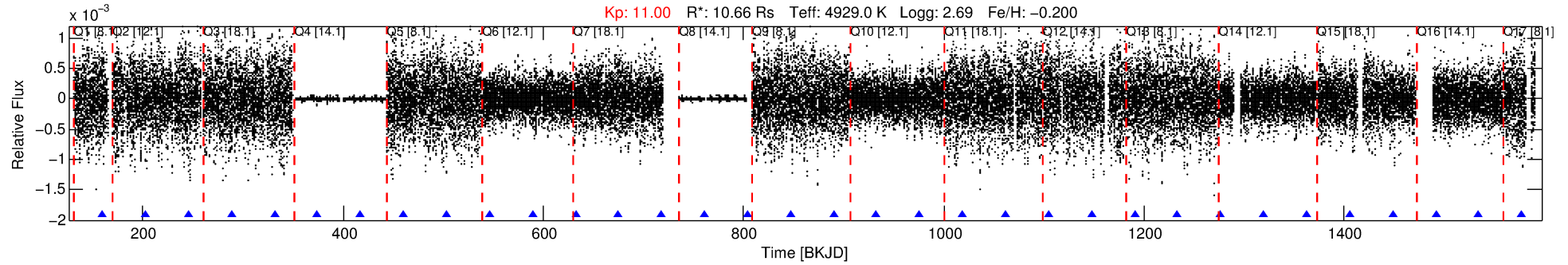
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007950550-03

No Significant Match Found

DV One-Page Summary

KIC: 7950550 Candidate: 3 of 10 Period: 42.952 d



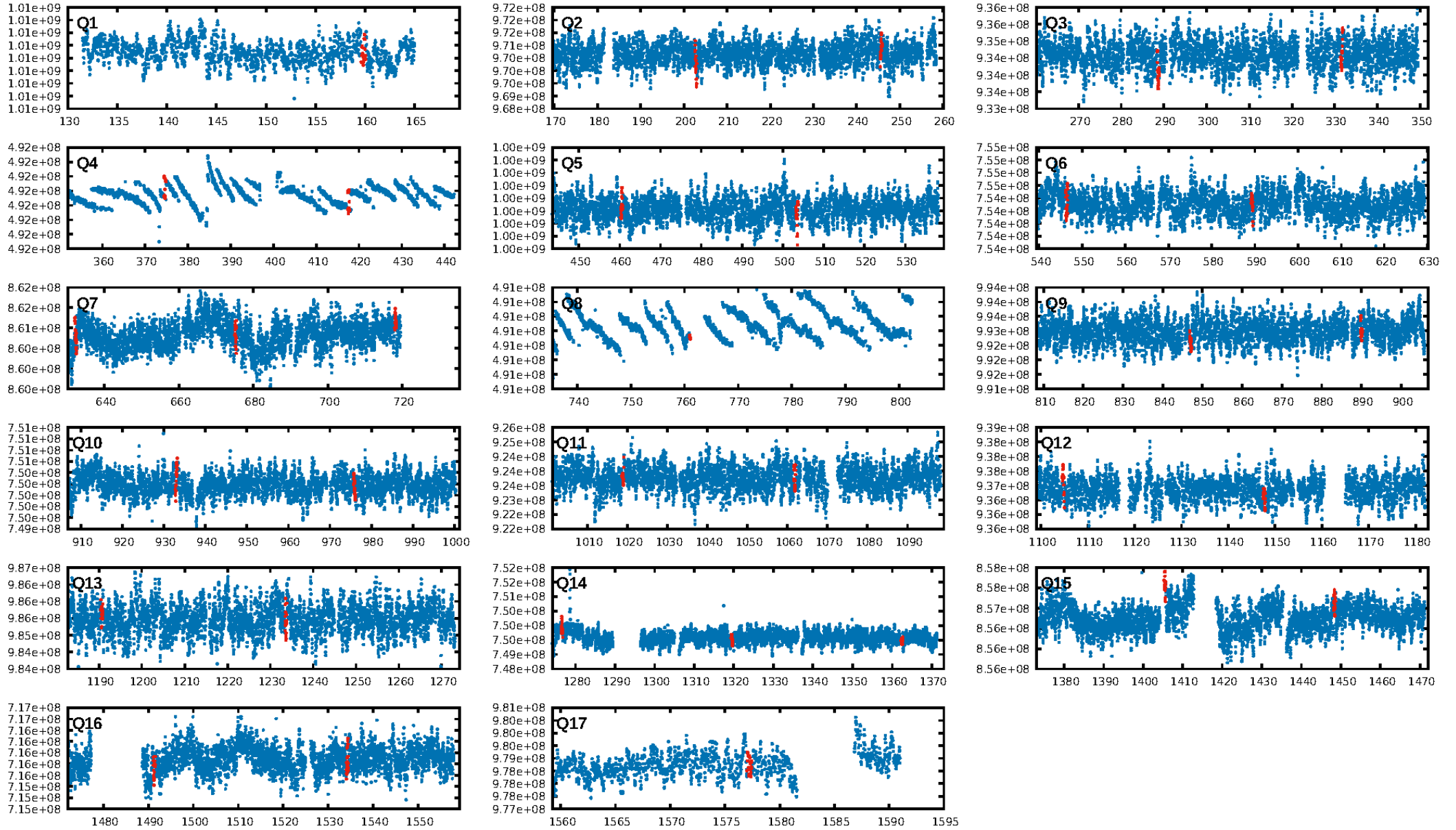
DV Fit Results:

Period = 42.95183 [0.00038] d
Epoch = 159.8292 [0.0039] BKJD
Rp/R* = 0.0070 [0.0010]
a/R* = 28.67 [15.13]
b = 0.89 [0.13]
Seff = 652.19 [130.13]
Teff = 1289 [64] K
Rp = 8.16 [2.29] Re
a = 0.3035 [0.0491] AU
Ag = 2.84 [1.97] [0.94 σ]
Teffp = 2587 [440] K [2.92 σ]

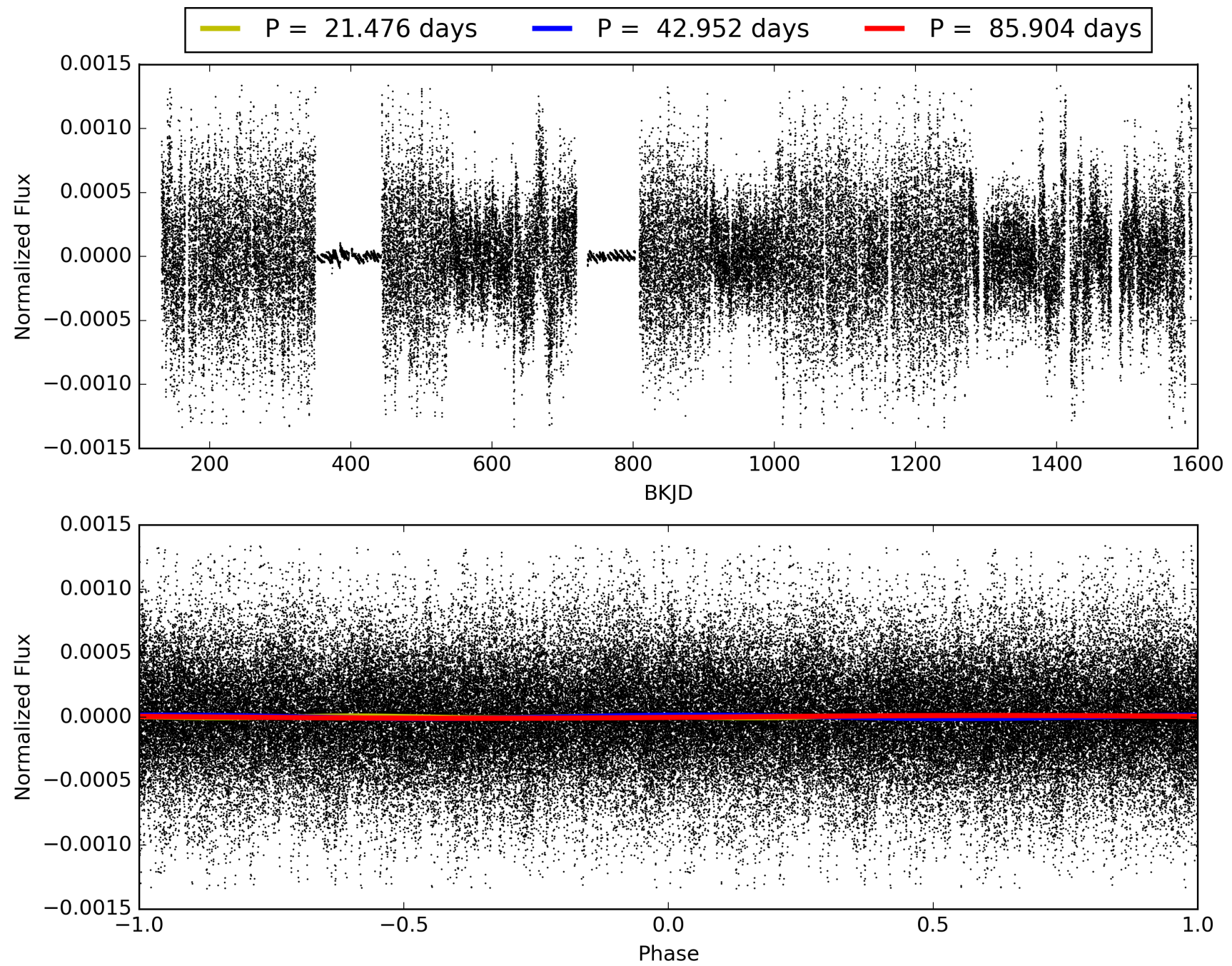
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [13.39 σ]
LongPeriod-sig: 100.0% [6.86 σ]
ModelChiSquare2-sig: 70.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [30/30]
GhostDiagnostic-chr: 0.5325
Centroid-sig: 2.2%
Centroid-so: 3.370 arcsec [2.00 σ]
OotOffset-rm: 0.741 arcsec [2.56 σ]
OotOffset-st: 3/4/3/5 [15]
KicOffset-rm: 1.042 arcsec [3.64 σ]
KicOffset-st: 3/4/3/5 [15]
DiffImageQuality-fgm: 0.53 [8/15]
DiffImageOverlap-fno: 0.94 [15/16]

TCE 007950550-03, PDC Light Curves

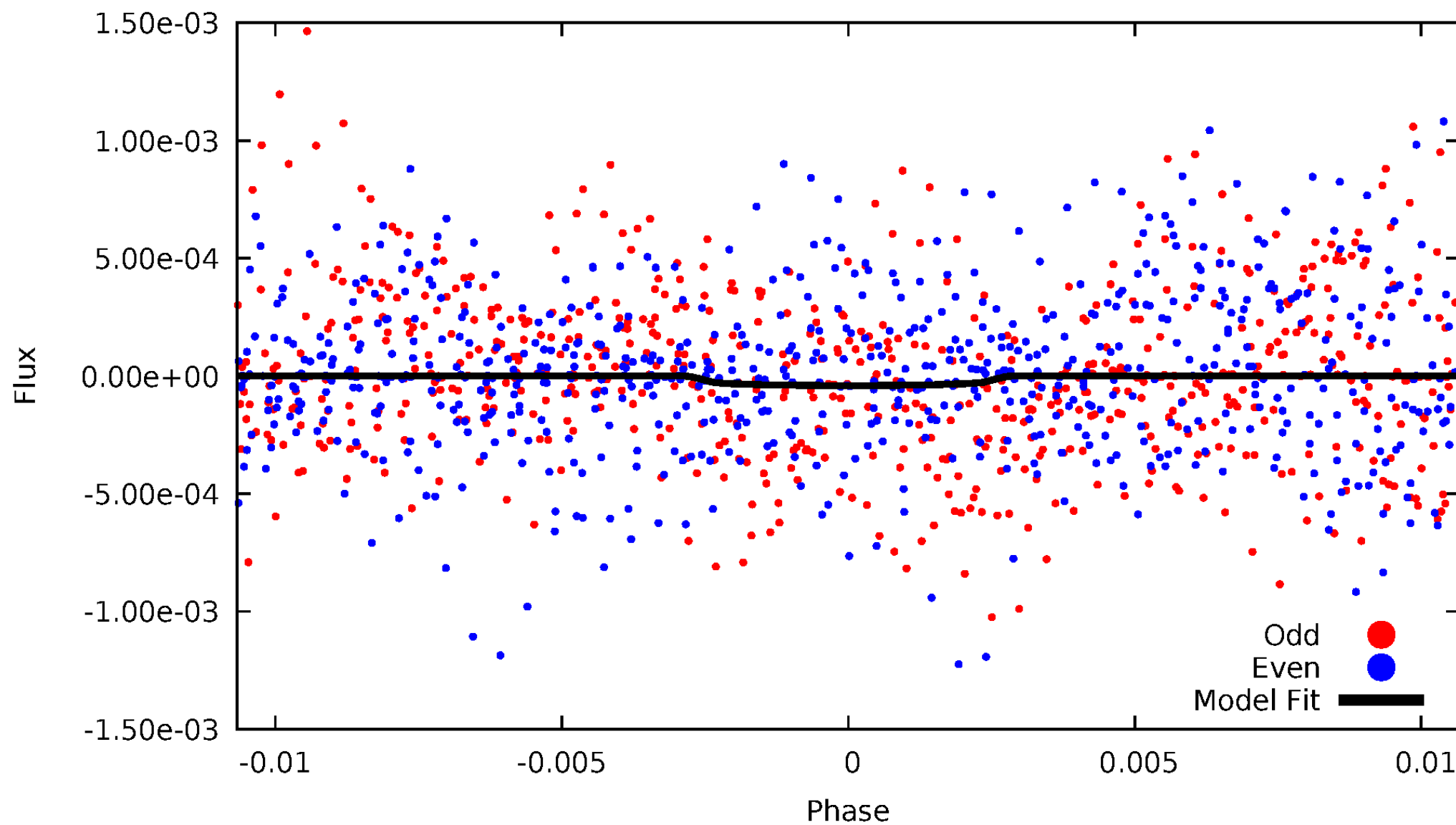


TCE 007950550-03



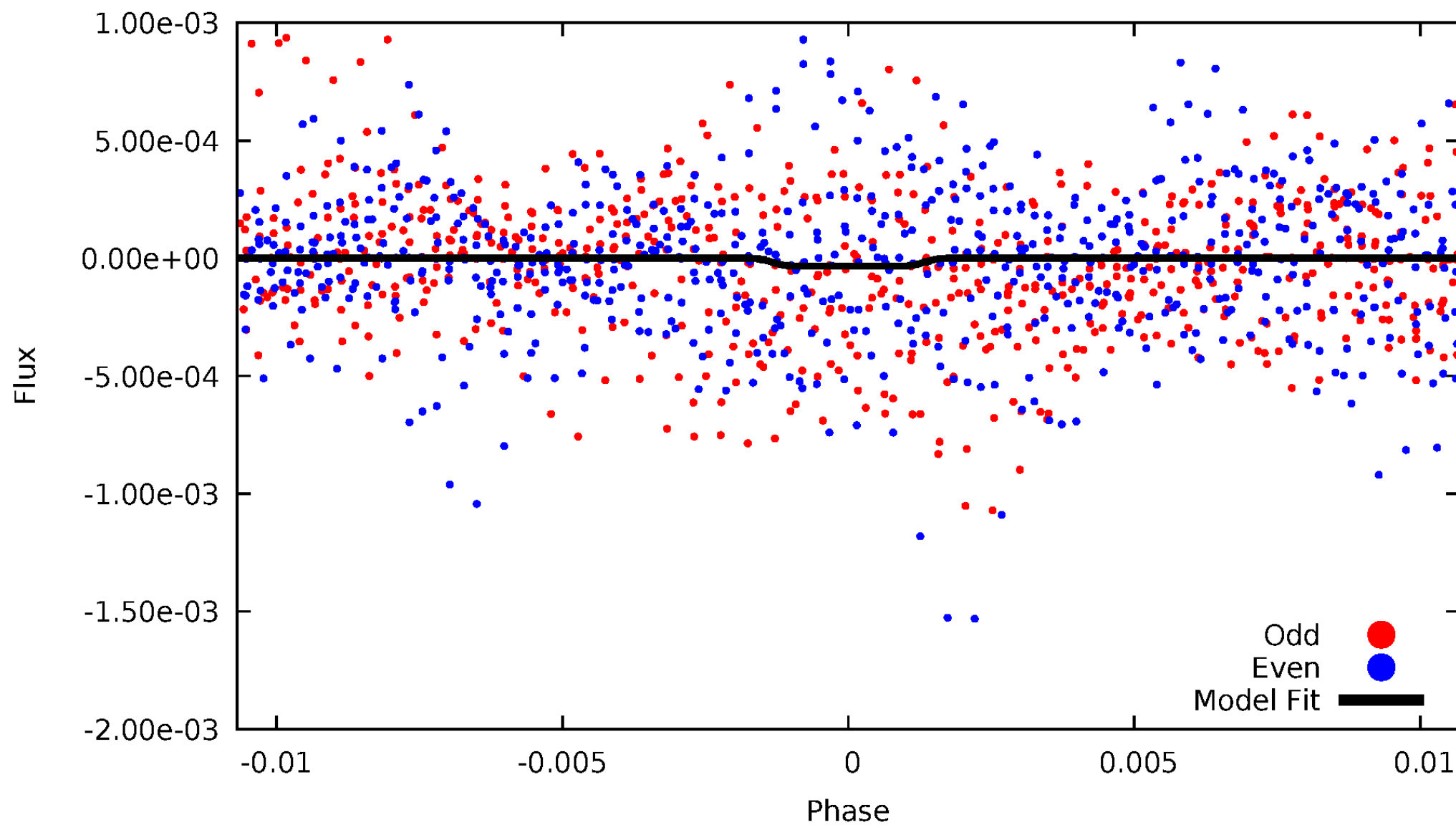
DV Odd/Even

TCE 007950550-03



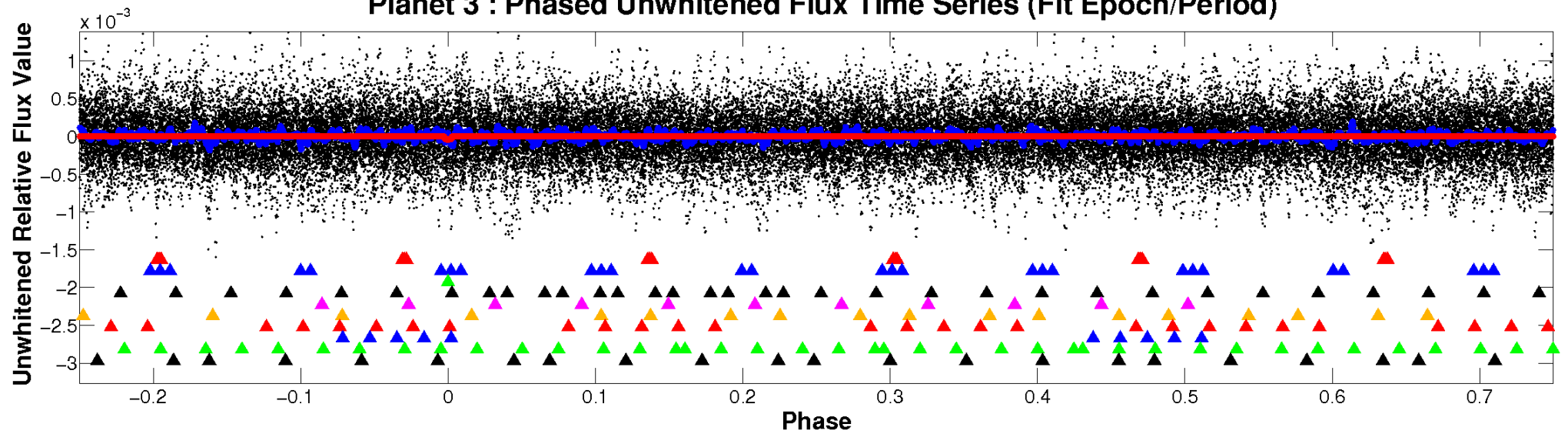
ALT Odd/Even

TCE 007950550-03

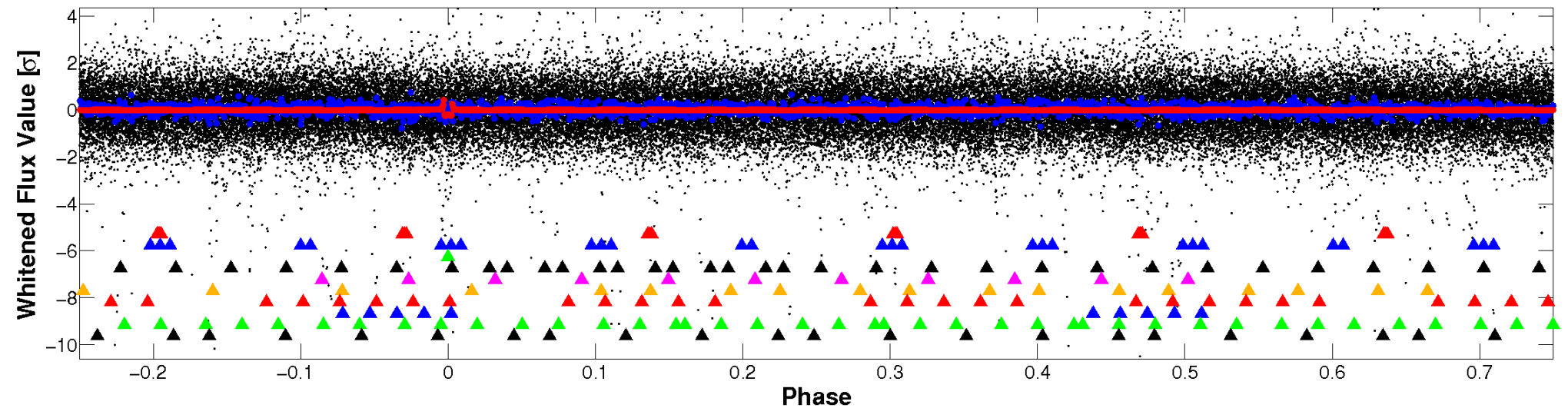


Non-Whitened Vs. Whitened Light Curve

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

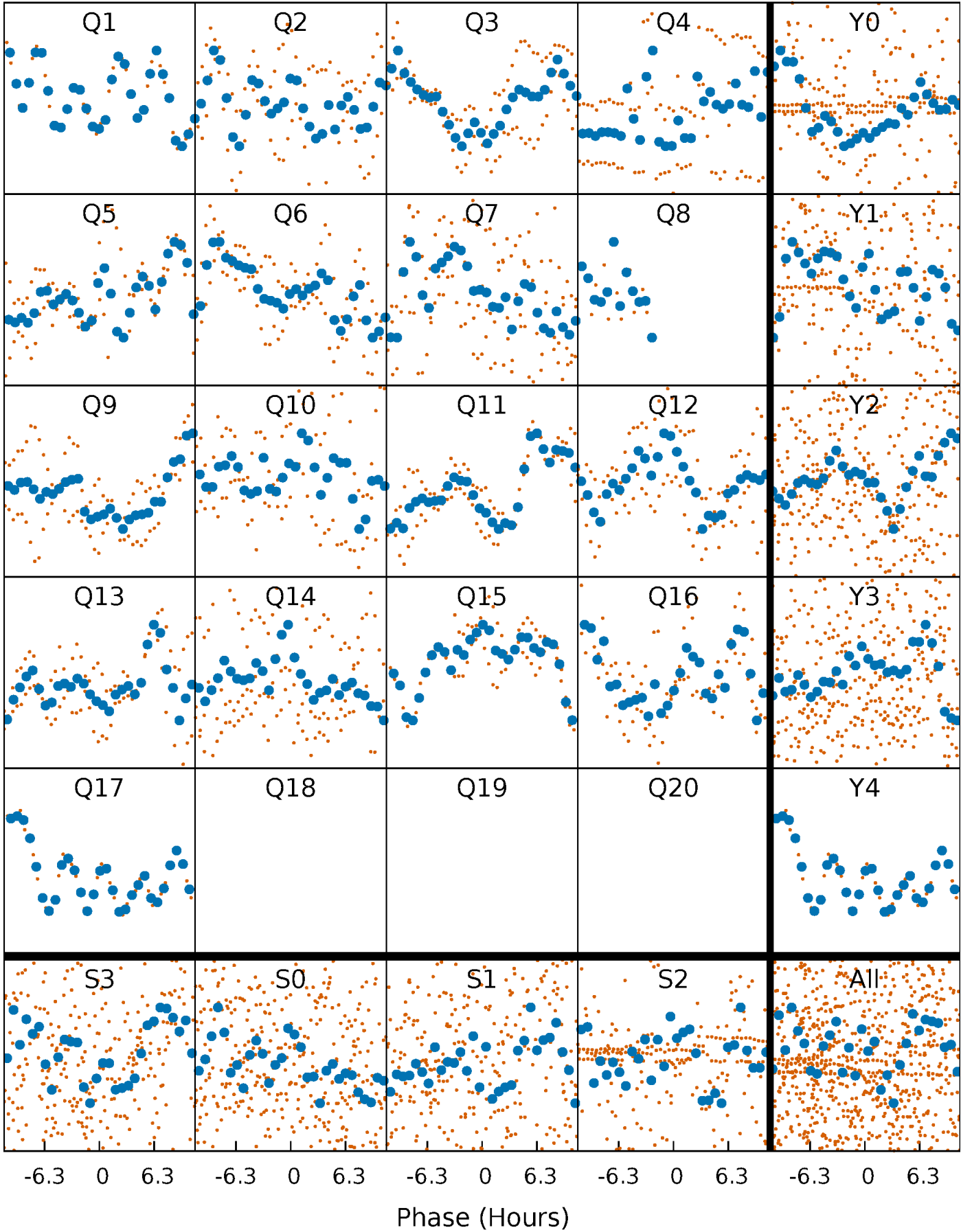


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



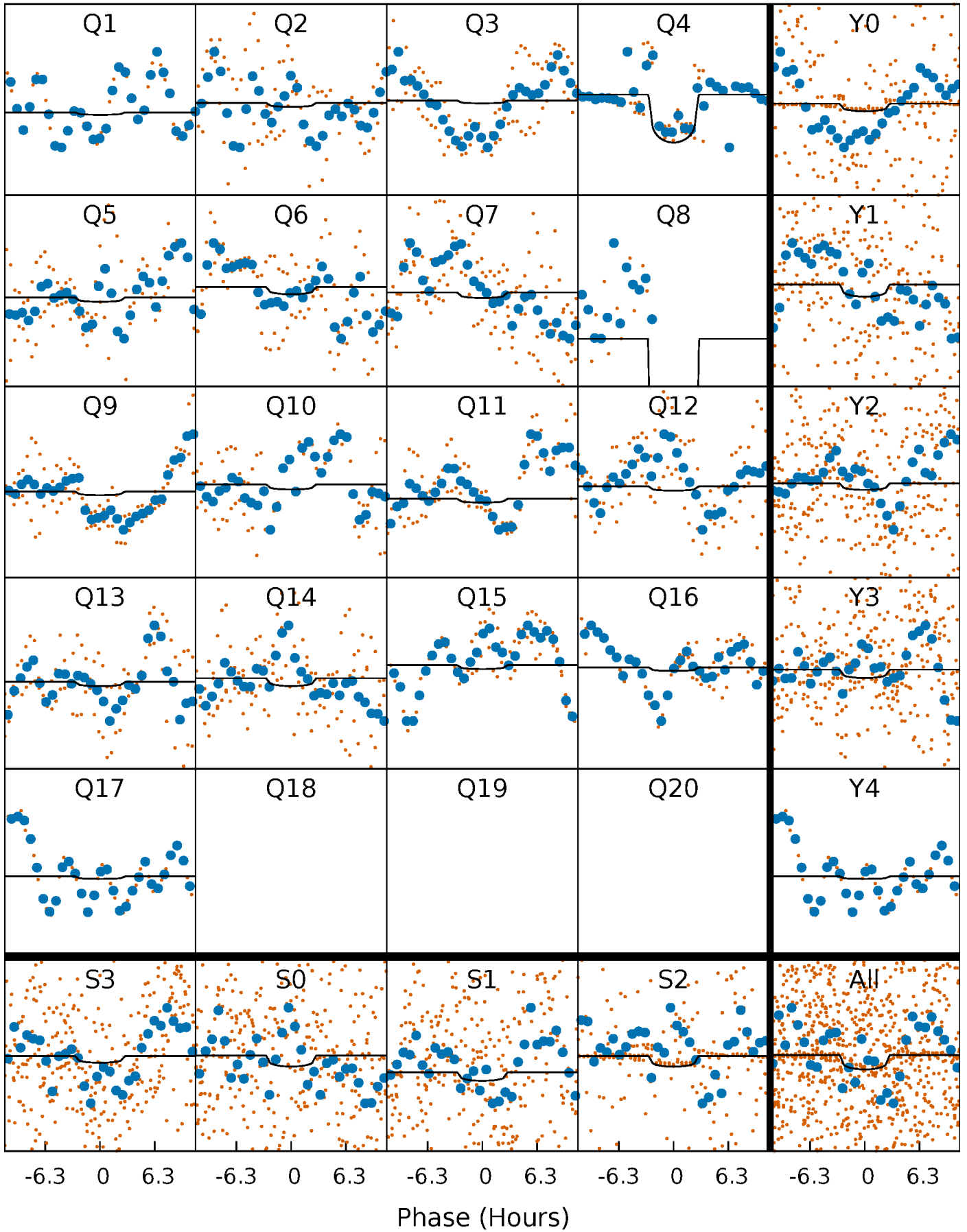
PDC Quarter-Phased Transit Curves

TCE 007950550-03 $P = 42.951829$ Days $T_0 = 159.829241$ (BKJD)



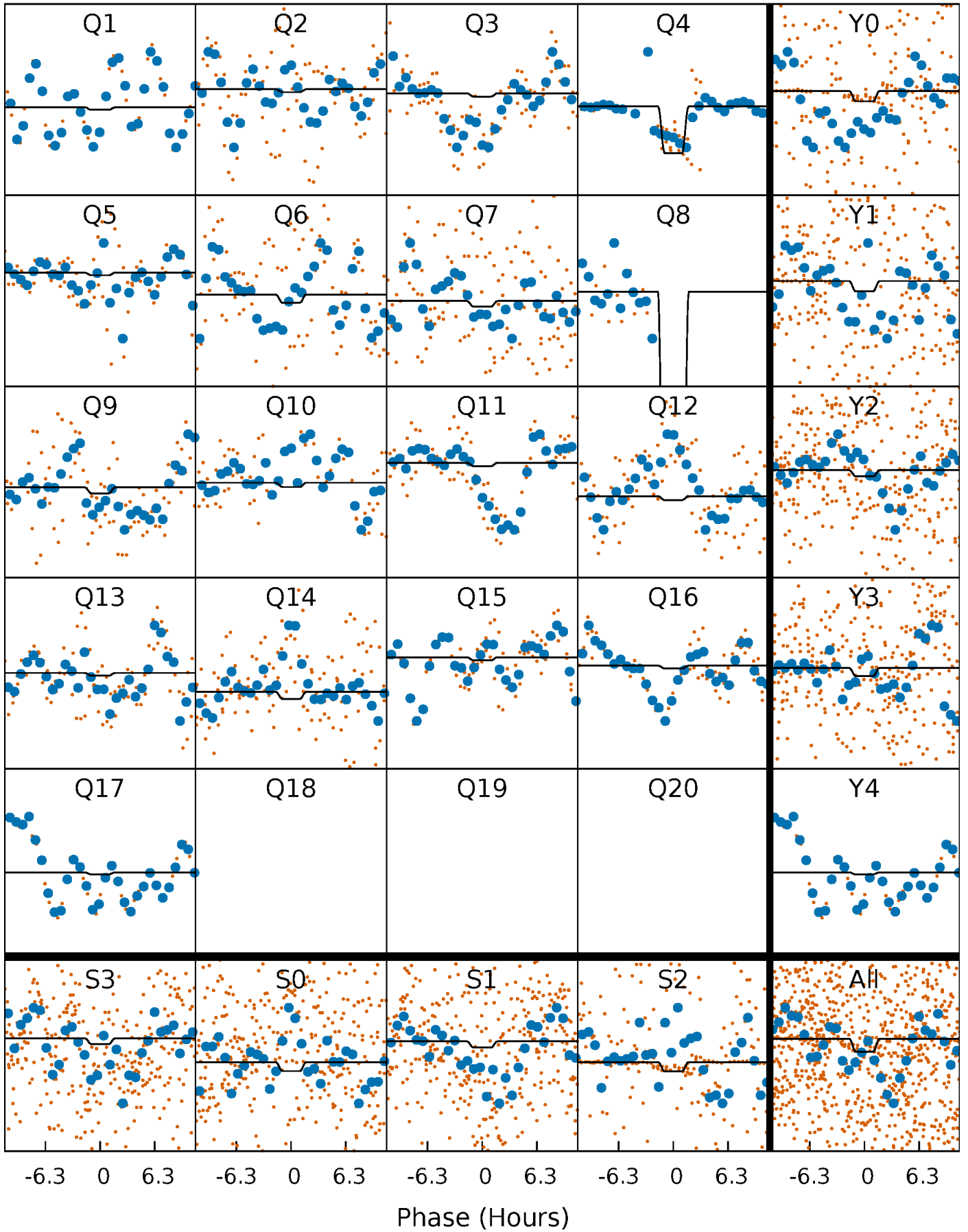
DV Quarter-Phased Transit Curves

TCE 007950550-03 P= 42.951829 Days $T_0=159.829241$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

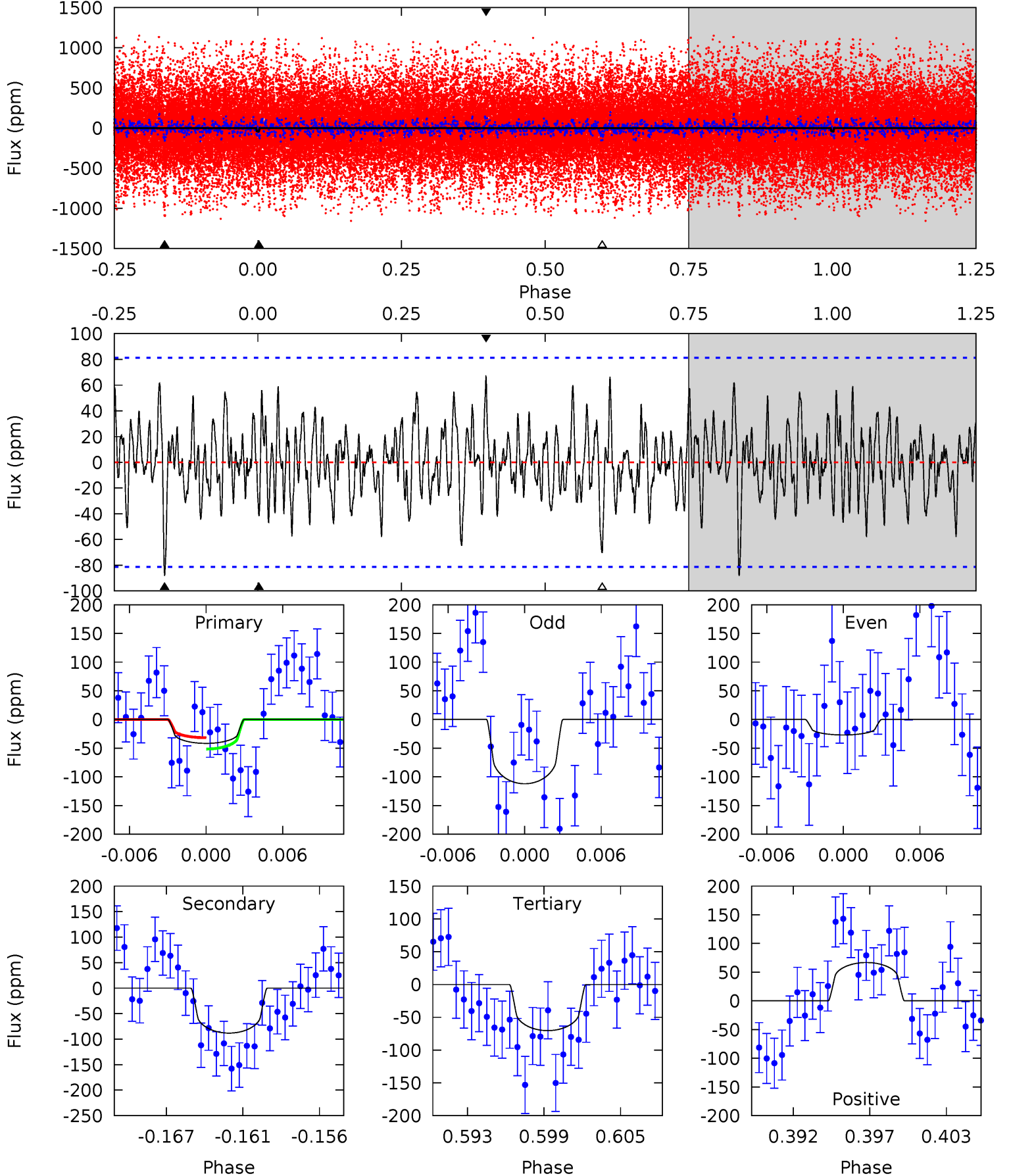
TCE 007950550-03 P= 42.950194 Days $T_0=159.850620$ (BKJD)



DV Model-Shift Uniqueness Test

007950550-03, P = 42.951829 Days, E = 116.877412 Days

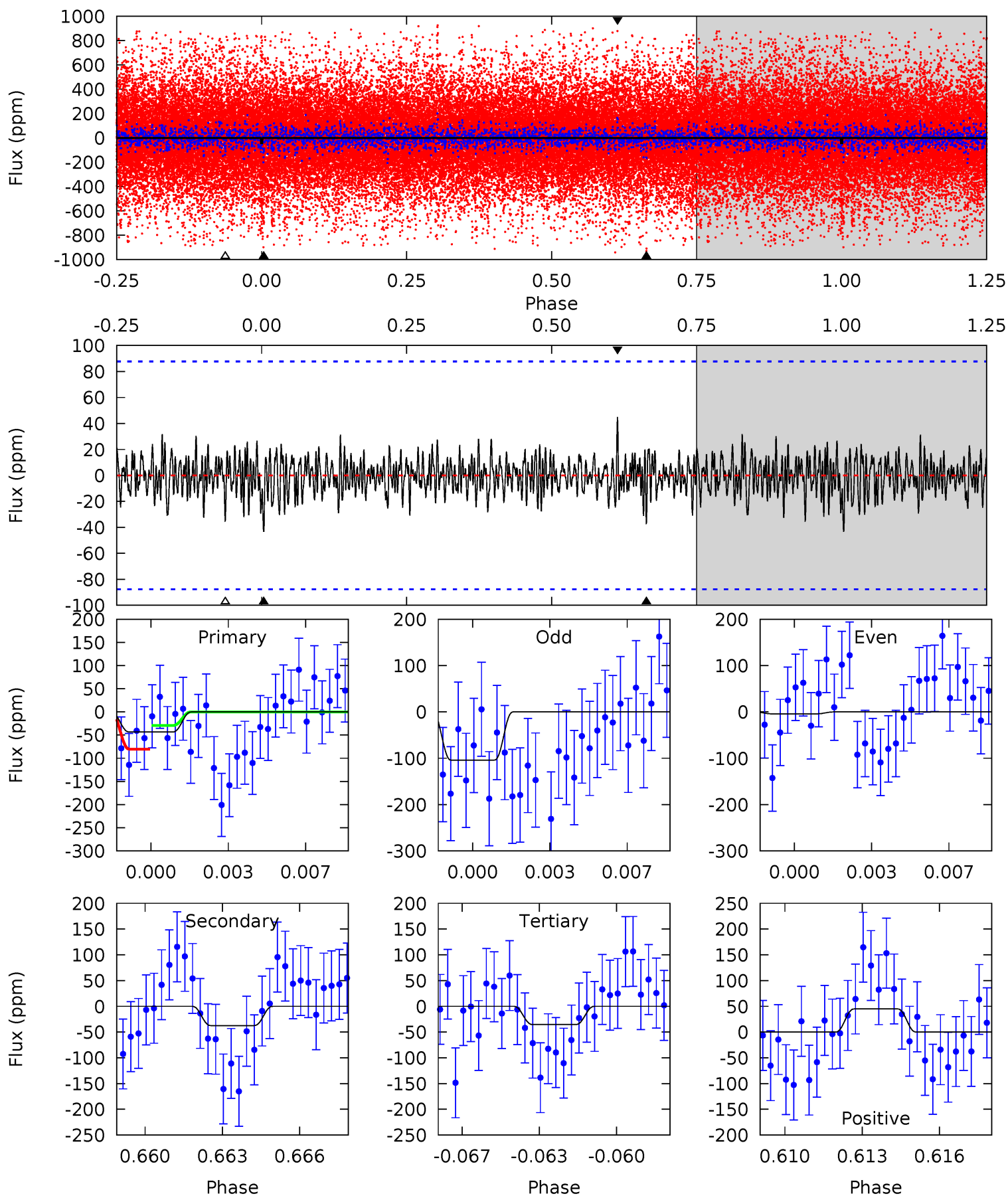
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.63	5.57	4.45	4.22	5.13	2.76	1.45	-1.81	-1.59	1.12	1.35	2.70	0.90	0.43	0.63



Alt Model-Shift Uniqueness Test

007950550-03, P = 42.950194 Days, E = 116.900426 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.59	2.23	2.11	2.68	5.23	2.94	0.68	0.48	-0.09	0.12	-0.45	2.97	0.54	0.51	1.52



Stellar Parameters For KIC 007950550

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4929^{+38}_{-135}	$2.688^{+0.030}_{-0.030}$	$-0.200^{+0.100}_{-0.150}$	$10.657^{+1.098}_{-2.562}$	$2.022^{+0.770}_{-0.847}$	$0.002^{+0.001}_{-0.000}$
	+1%/-3%	+1%/-1%	+50%/-75%	+10%/-24%	+38%/-42%	+34%/-9%
Source	PHO55	AST55	SPE55	DSEP		

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

Secondary Eclipse Parameters for KIC 007950550-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-88 ± 16	$8.24^{+1.54}_{-1.54}$	1797^{+43}_{-62}	5533^{+477}_{-417}	66^{+27}_{-20}
Alt.	-37 ± 17	$6.68^{+1.43}_{-1.26}$	1796^{+45}_{-58}	4997^{+653}_{-644}	41^{+30}_{-20}

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 $A_{obs} \gg 1.0$

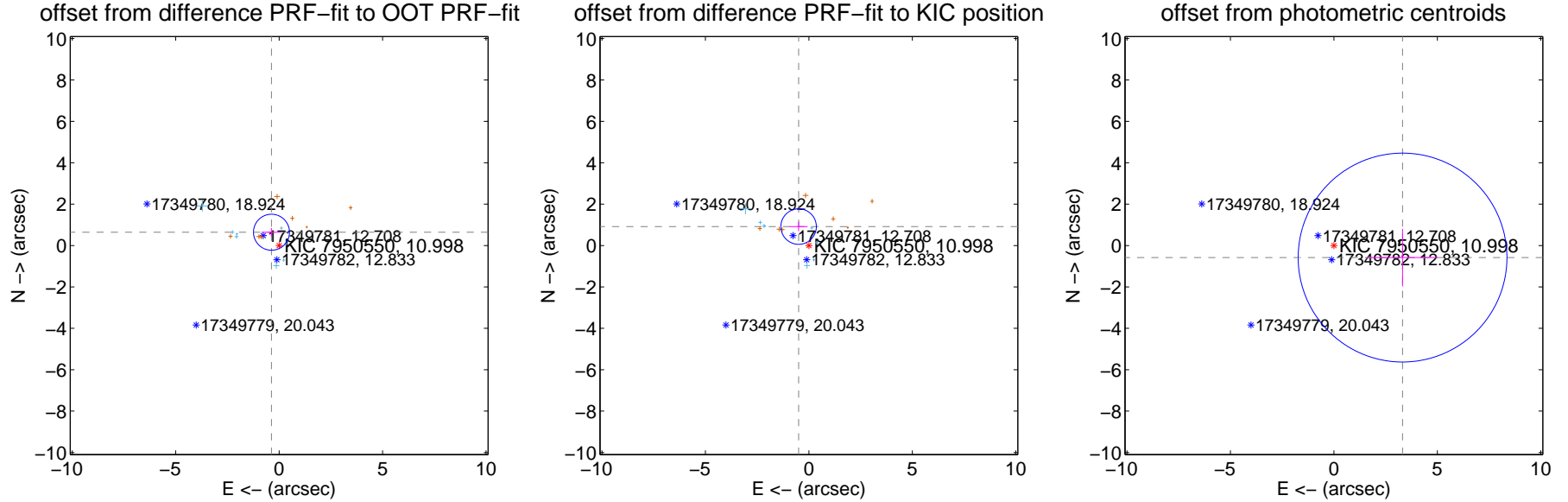
DV Centroid Data

Supplemental centroid analysis for 007950550-03. **Kepler magnitude: 11.00.** Transit SNR 11.40

There are 8 quarters with good PRF difference image offsets

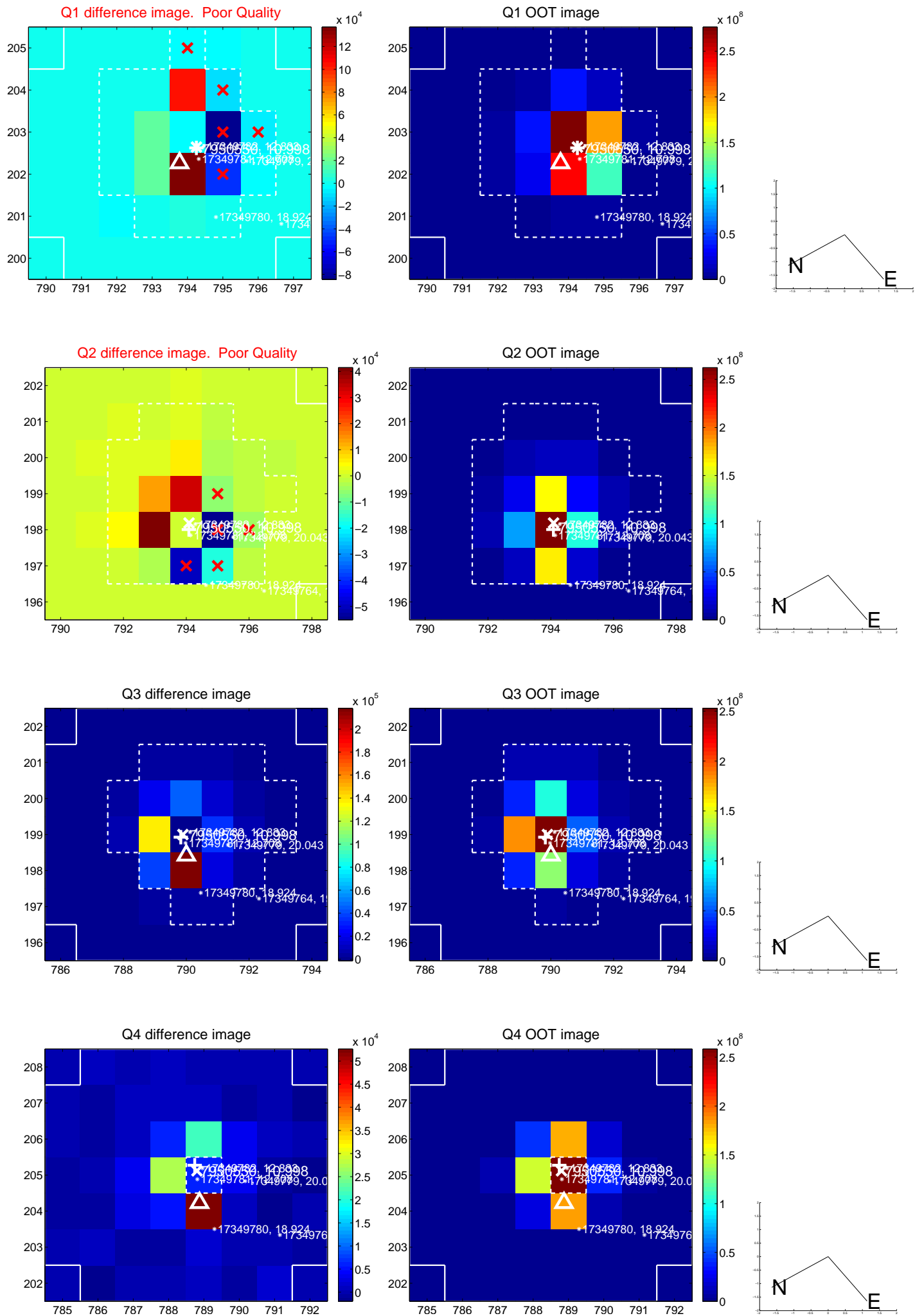
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.741 ± 0.290	2.56	0.369 ± 0.468	0.643 ± 0.199
PRF-fit source offset from KIC position	1.042 ± 0.286	3.64	0.496 ± 0.435	0.916 ± 0.227
photometric centroid source offset	3.37 ± 1.68	2.00	-3.32 ± 1.69	-0.58 ± 1.39

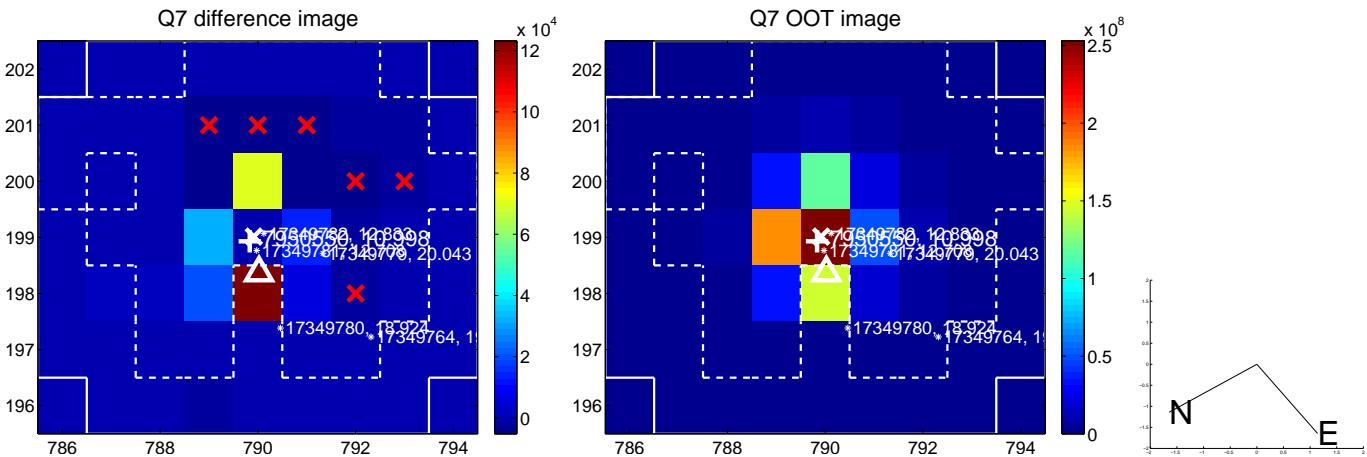
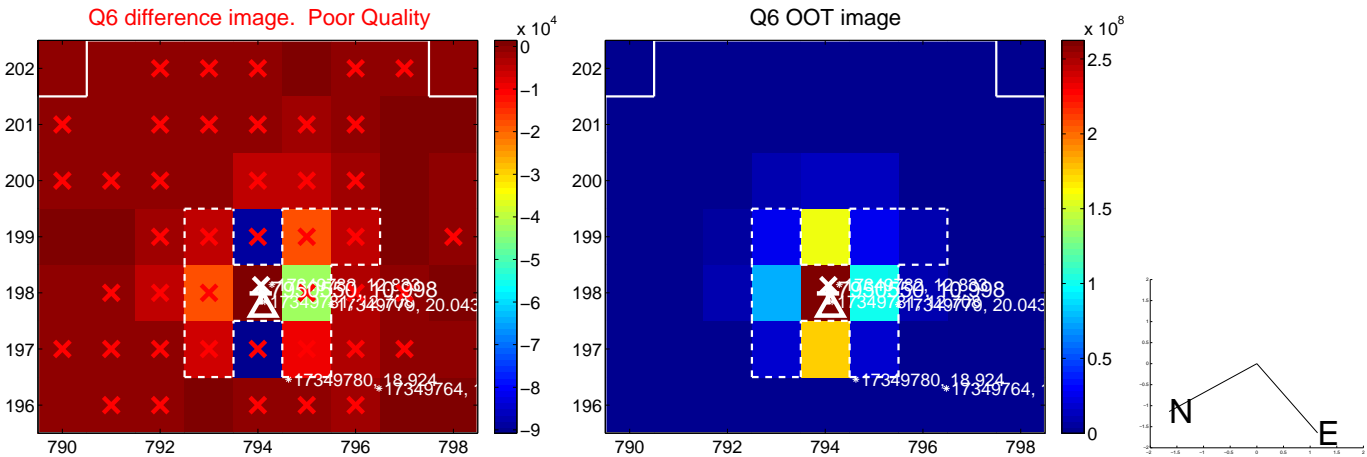
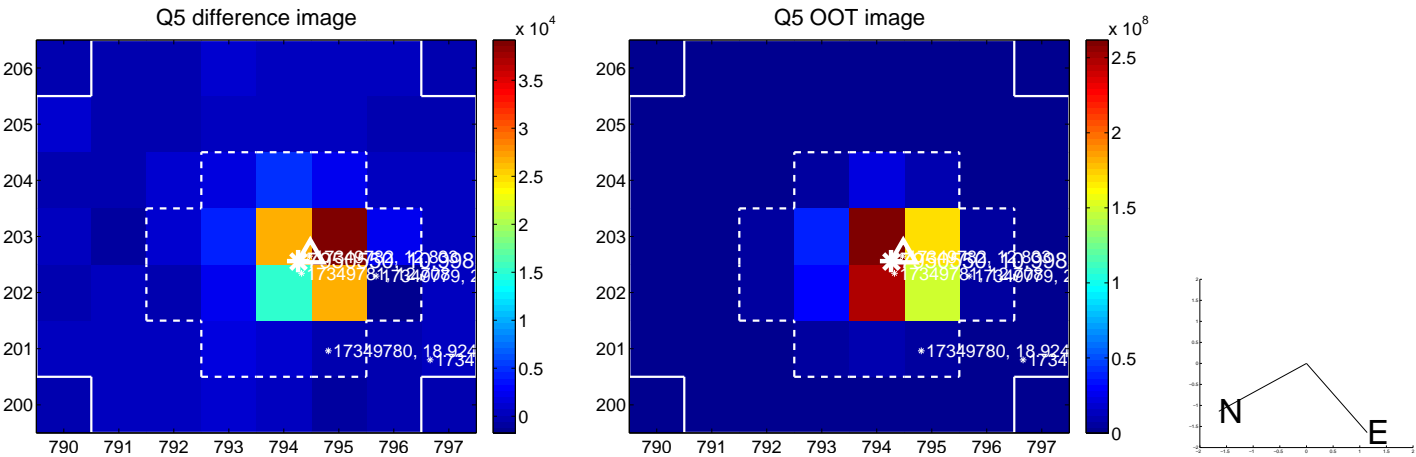


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

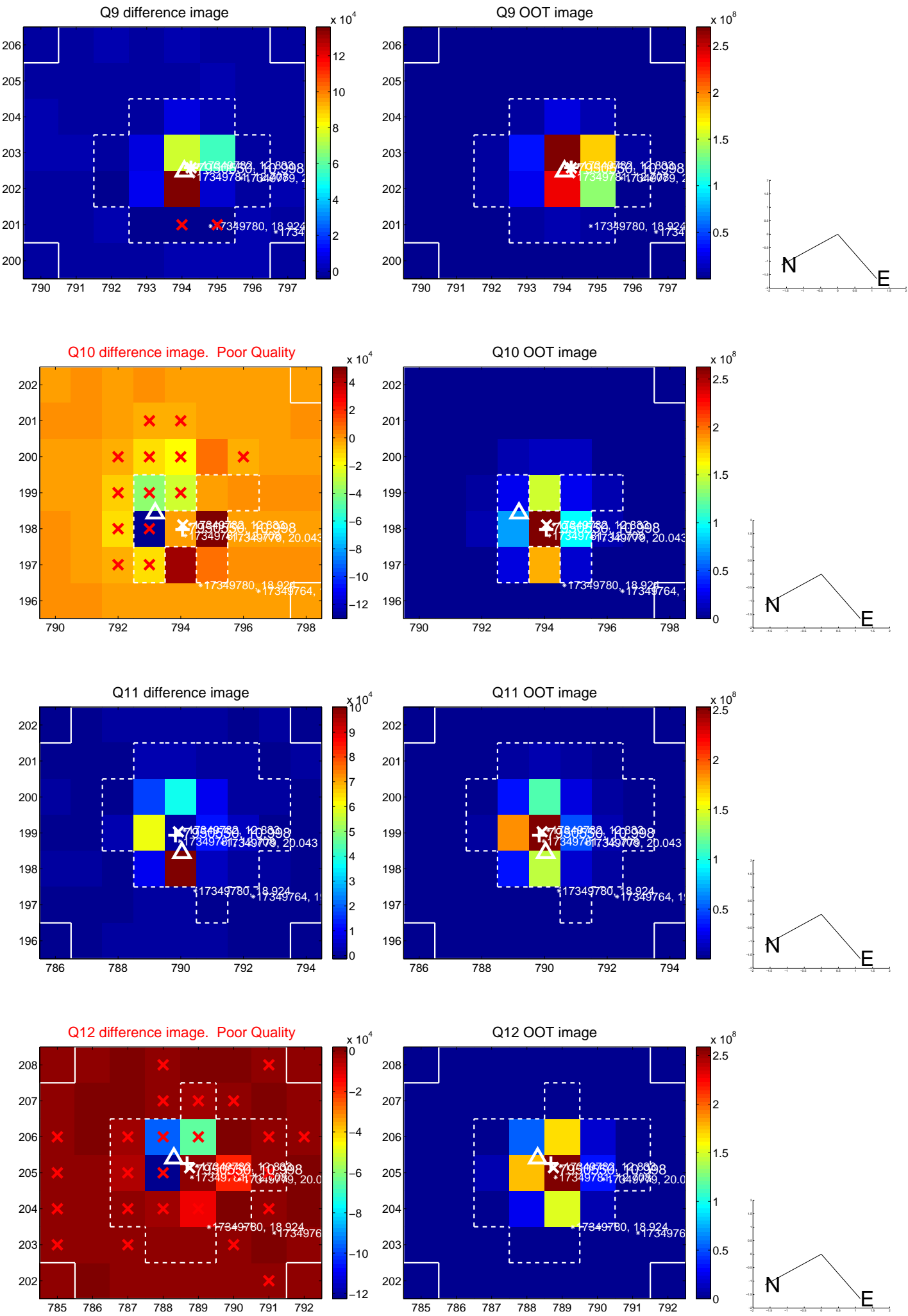
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



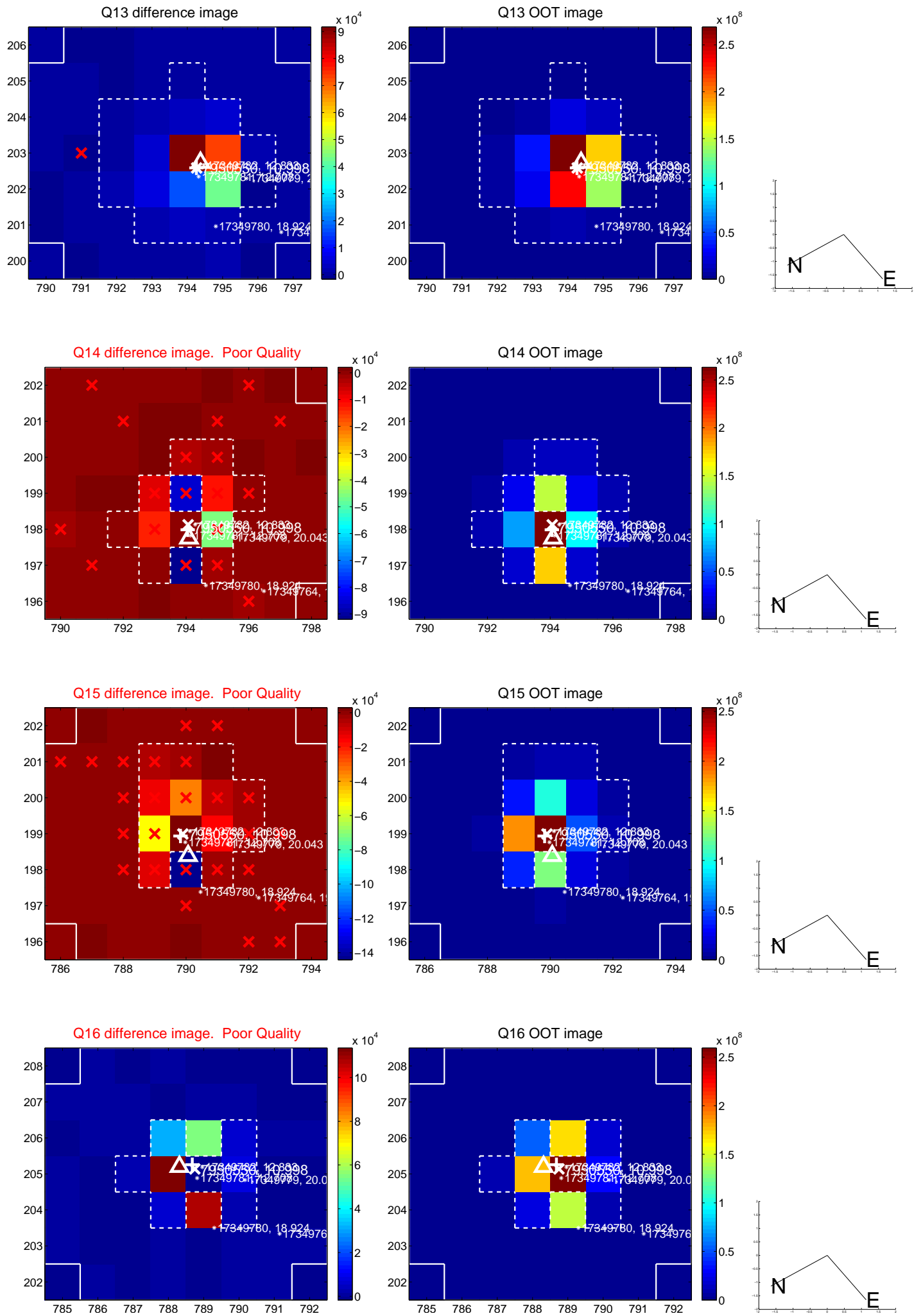
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



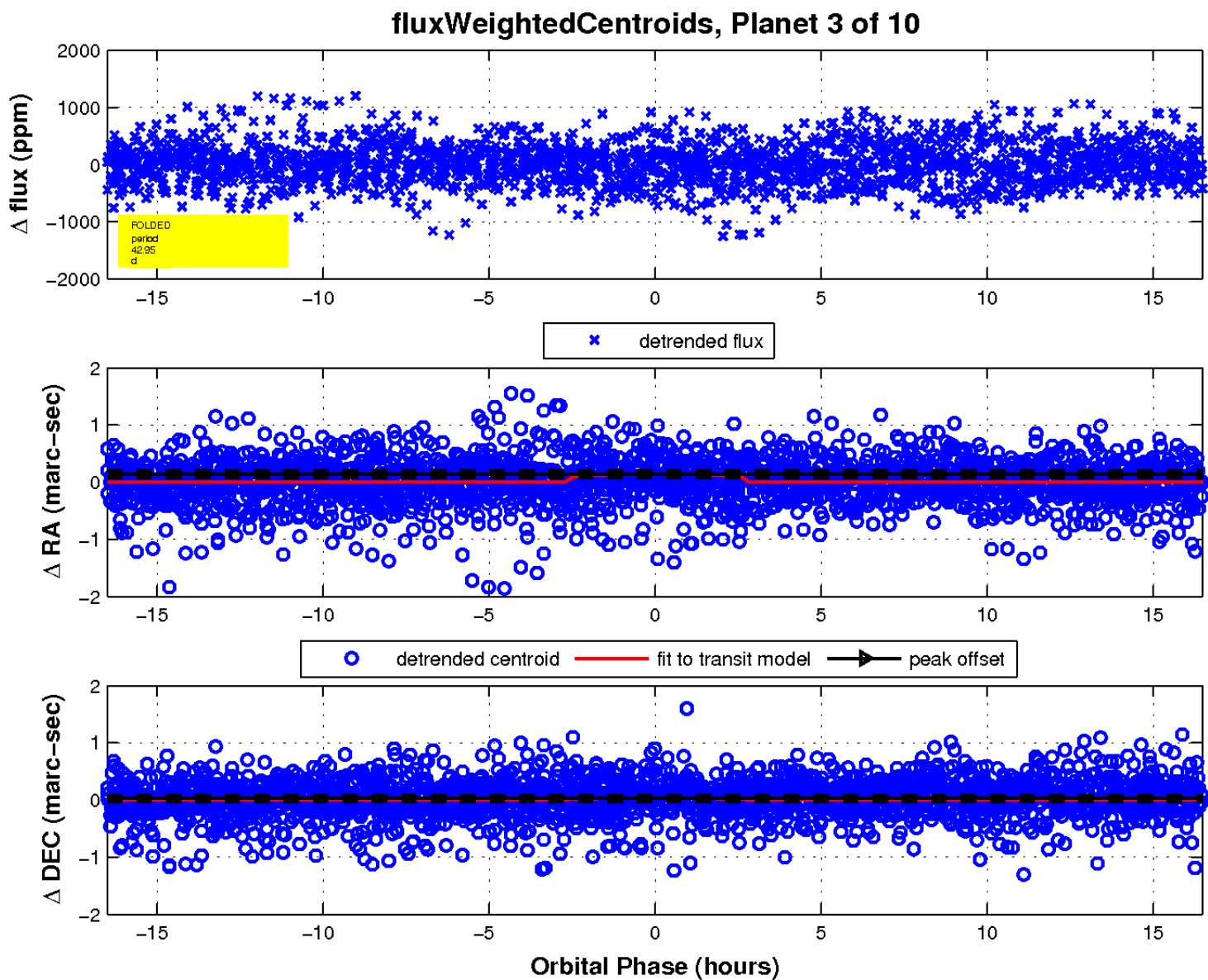
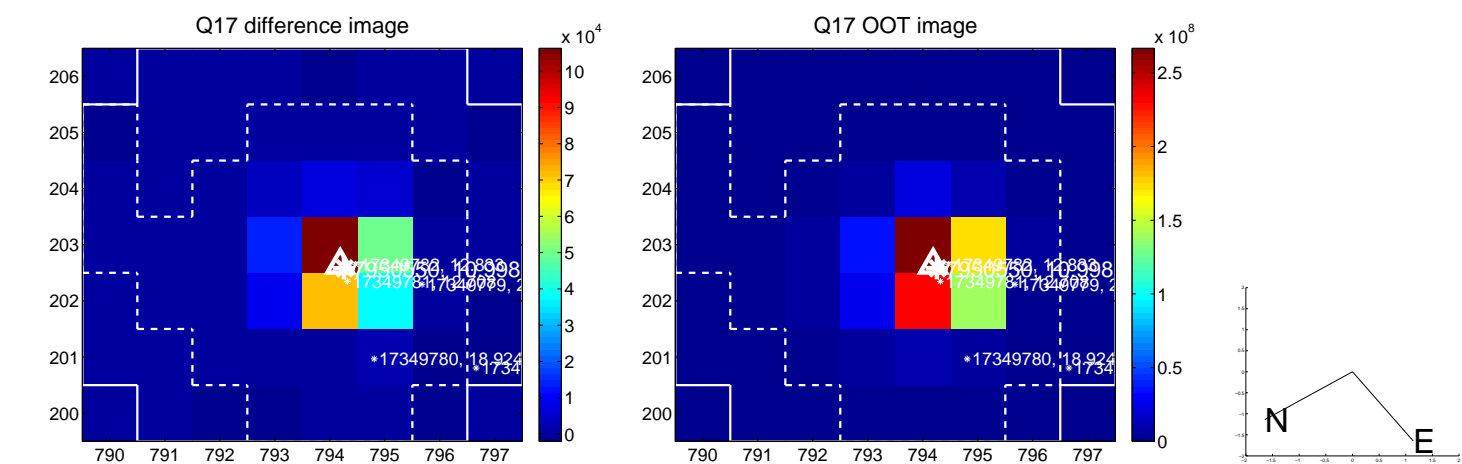
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

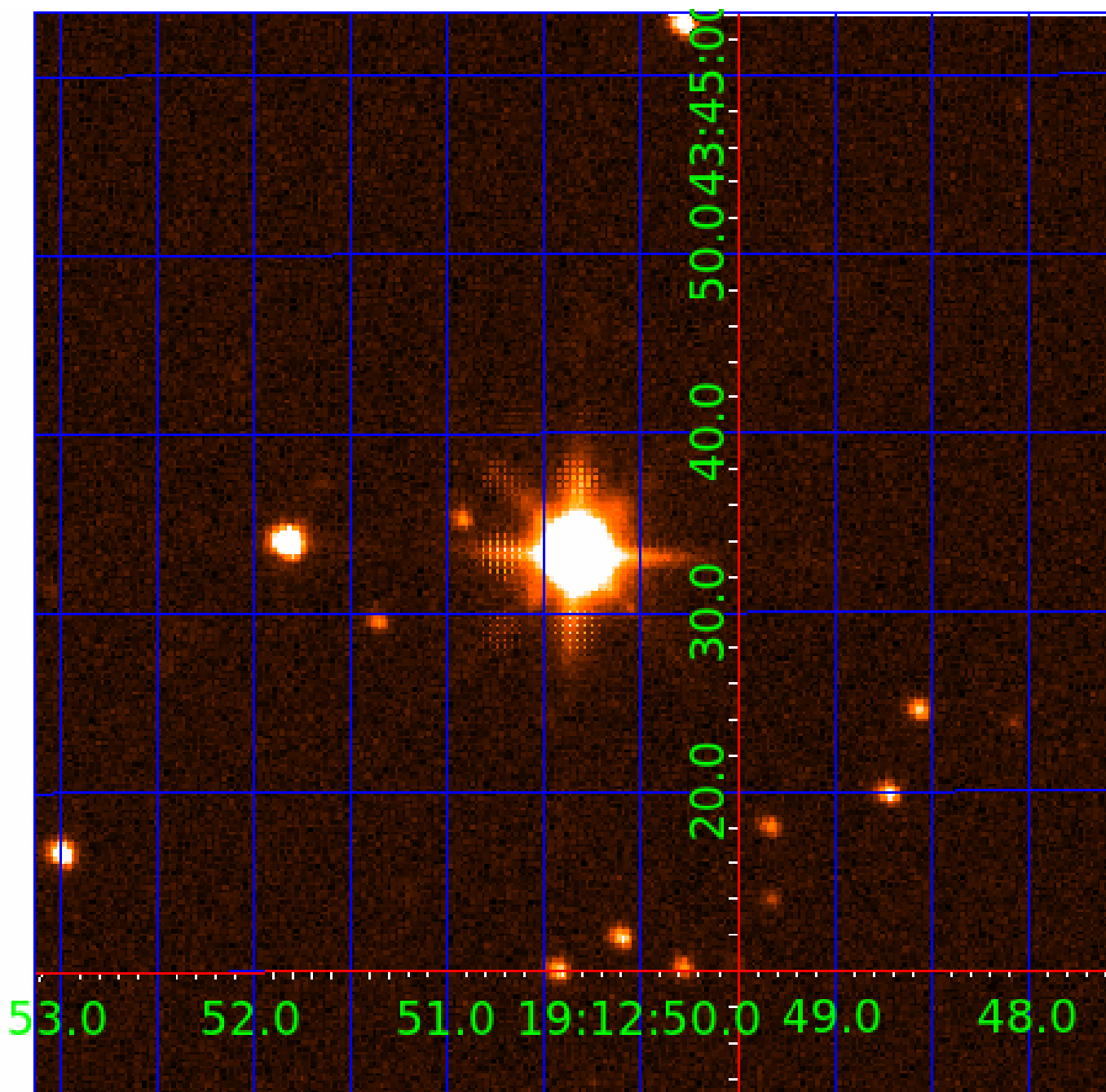


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007950550

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})
007950550-01	OBS	No	78.754453	187.099506	53.7	1.615	31.6	16.3	10.66	4929	9.55	290.62
007950550-02	OBS	No	55.808550	138.872074	58.3	3.245	15.3	17.3	10.66	4929	9.37	459.99
007950550-03	OBS	No	42.951829	159.829241	41.0	5.498	15.7	11.4	10.66	4929	8.16	652.20
007950550-04	OBS	No	44.561631	161.040643	52.2	1.207	15.2	18.4	10.66	4929	9.53	620.97
007950550-05	OBS	No	131.379320	242.059586	29.5	11.224	15.0	7.7	10.66	4929	6.93	146.89
007950550-06	OBS	No	82.129715	143.985409	37.5	16.367	15.4	8.8	10.66	4929	7.65	274.80
007950550-07	OBS	No	51.755812	179.880861	10.9	1.900	14.1	3.5	10.66	4929	3.63	508.64
007950550-08	OBS	No	149.936248	138.841227	69.5	7.544	22.6	16.5	10.66	4929	10.82	123.16
007950550-09	OBS	No	37.154510	135.118424	21.9	8.813	14.3	8.8	10.66	4929	5.95	791.29
007950550-10	OBS	No	68.278848	136.425466	186.5	5.314	12.6	1.4	10.66	4929	16.52	351.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007950550-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-02	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED— HALO_GHOST
007950550-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS— CENT_SATURATED
007950550-06	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT— CENT_SATURATED—HALO_GHOST
007950550-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_SATURATED
007950550-09	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED— HALO_GHOST
007950550-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT— MOD_POS_ALT—CENT_SATURATED

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

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

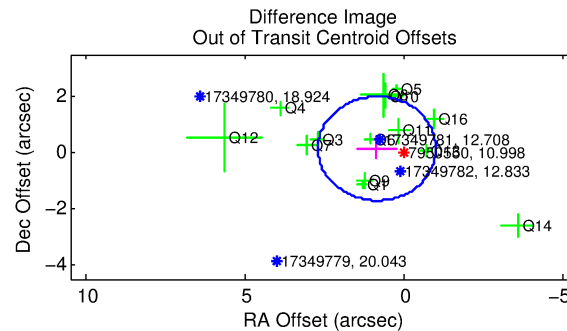
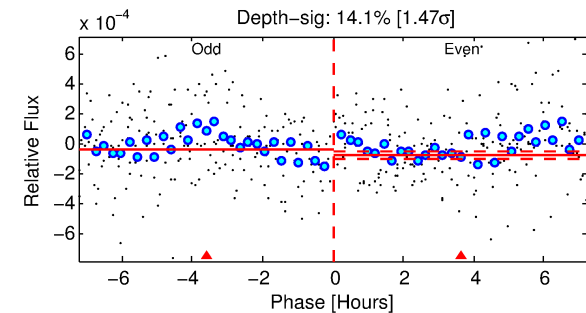
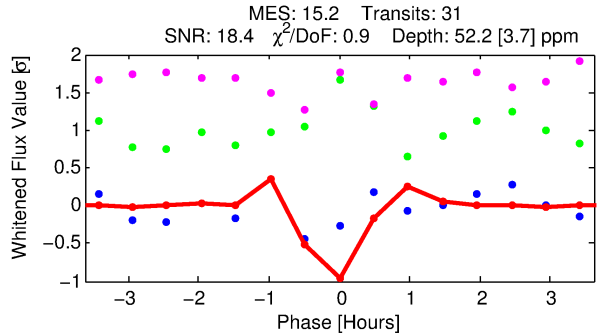
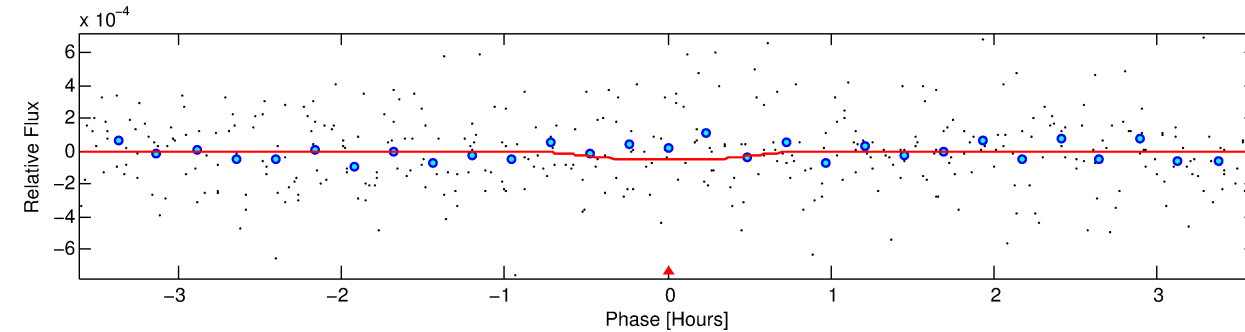
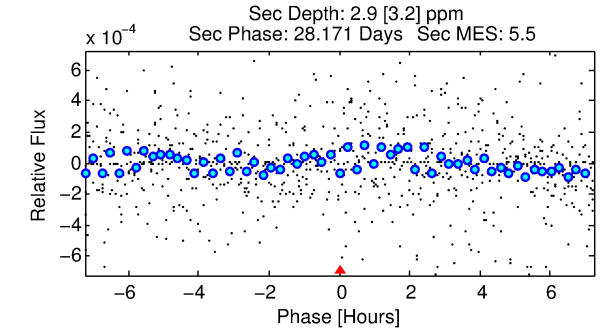
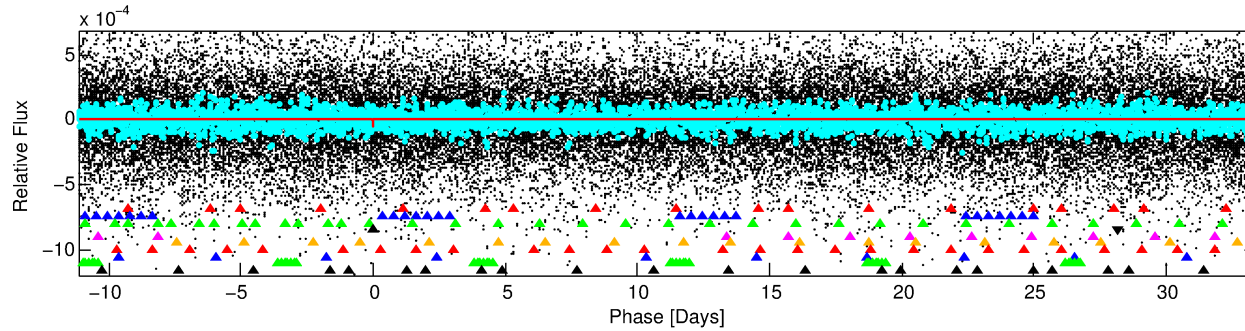
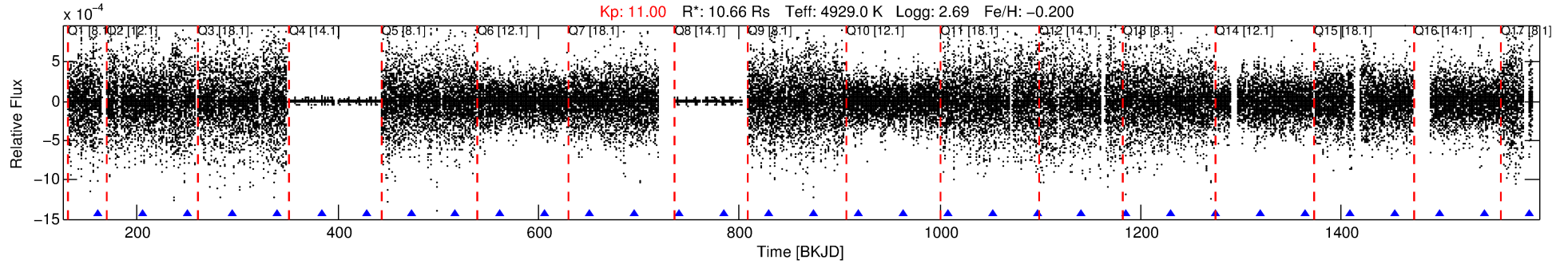
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007950550-04

No Significant Match Found

DV One-Page Summary

KIC: 7950550 Candidate: 4 of 10 Period: 44.562 d



DV Fit Results:

Period = 44.56163 [0.00025] d
Epoch = 161.0406 [0.0029] BKJD
Rp/R* = 0.0082 [0.0054]
a/R* = 122.90 [324.79]
b = 0.91 [0.53]
Seff = 620.97 [123.90]
Teq = 1273 [63] K
Rp = 9.52 [6.68] Re
a = 0.3110 [0.0504] AU
Ag = 1.71 [2.94] [0.24σ]
Teffp = 2252 [964] K [1.01σ]

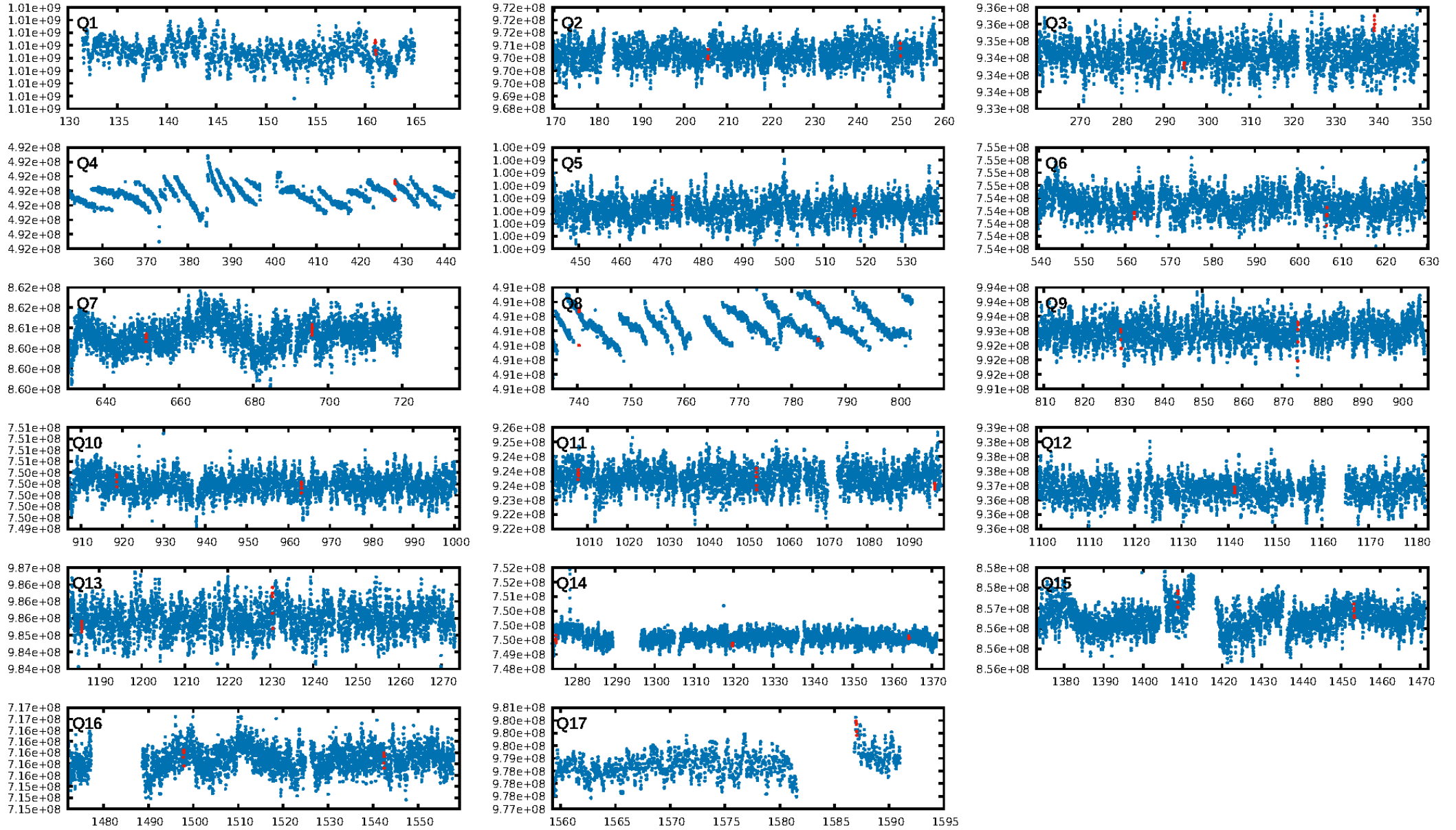
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [6.86σ]
LongPeriod-sig: 100.0% [76.71σ]
ModelChiSquare2-sig: 46.7%
ModelChiSquareGof-sig: 99.5%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [29/29]
GhostDiagnostic-chr: -1.905
Centroid-sig: 1.6%
Centroid-so: 2.672 arcsec [1.58σ]
OotOffset-rm: 0.869 arcsec [1.41σ]
OotOffset-st: 3/3/4/4 [14]
KicOffset-rm: 0.931 arcsec [1.53σ]
KicOffset-st: 3/3/4/4 [14]
DiffImageQuality-fgm: 0.14 [2/14]
DiffImageOverlap-fno: 1.00 [16/16]

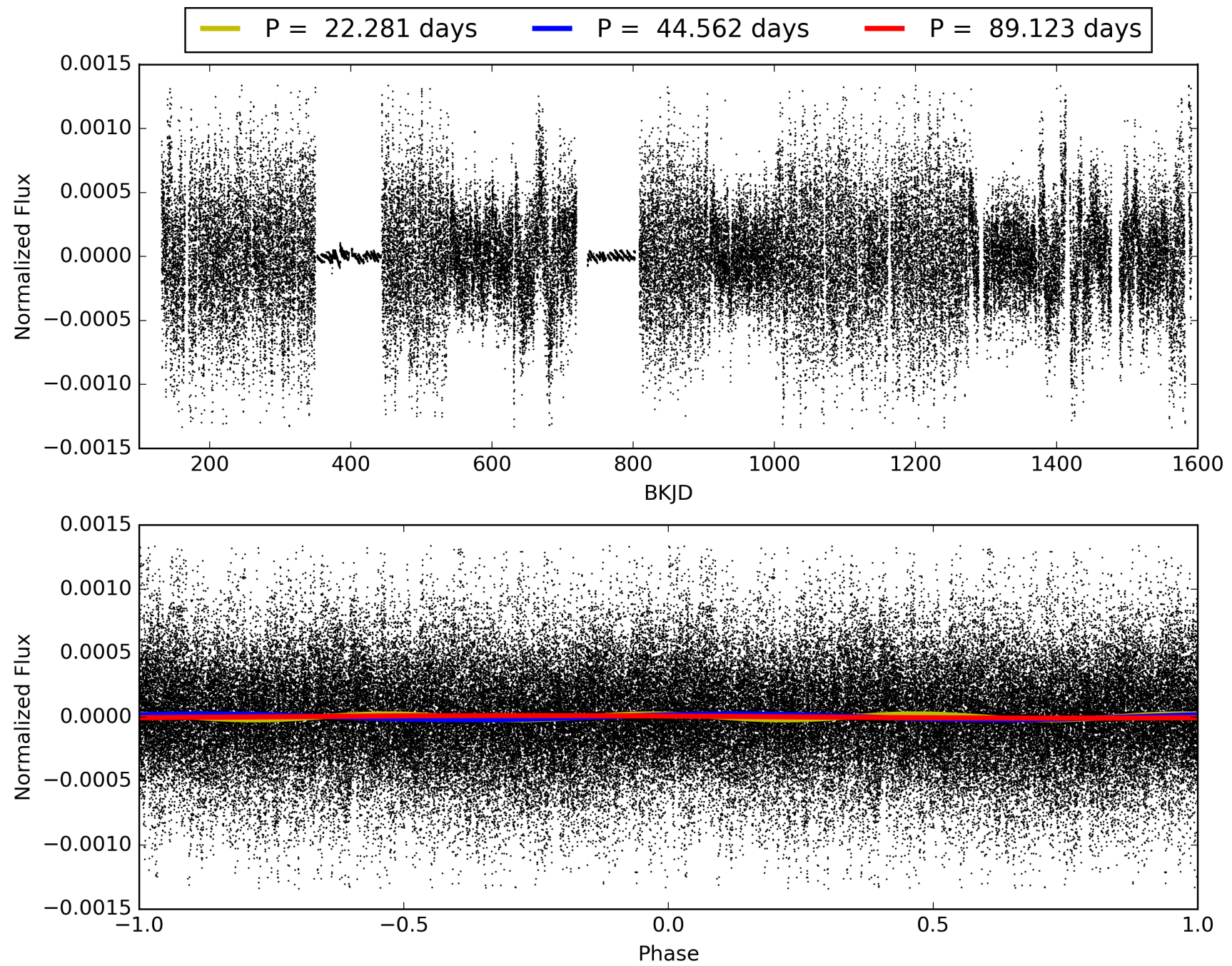
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:46:12 Z

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

TCE 007950550-04, PDC Light Curves

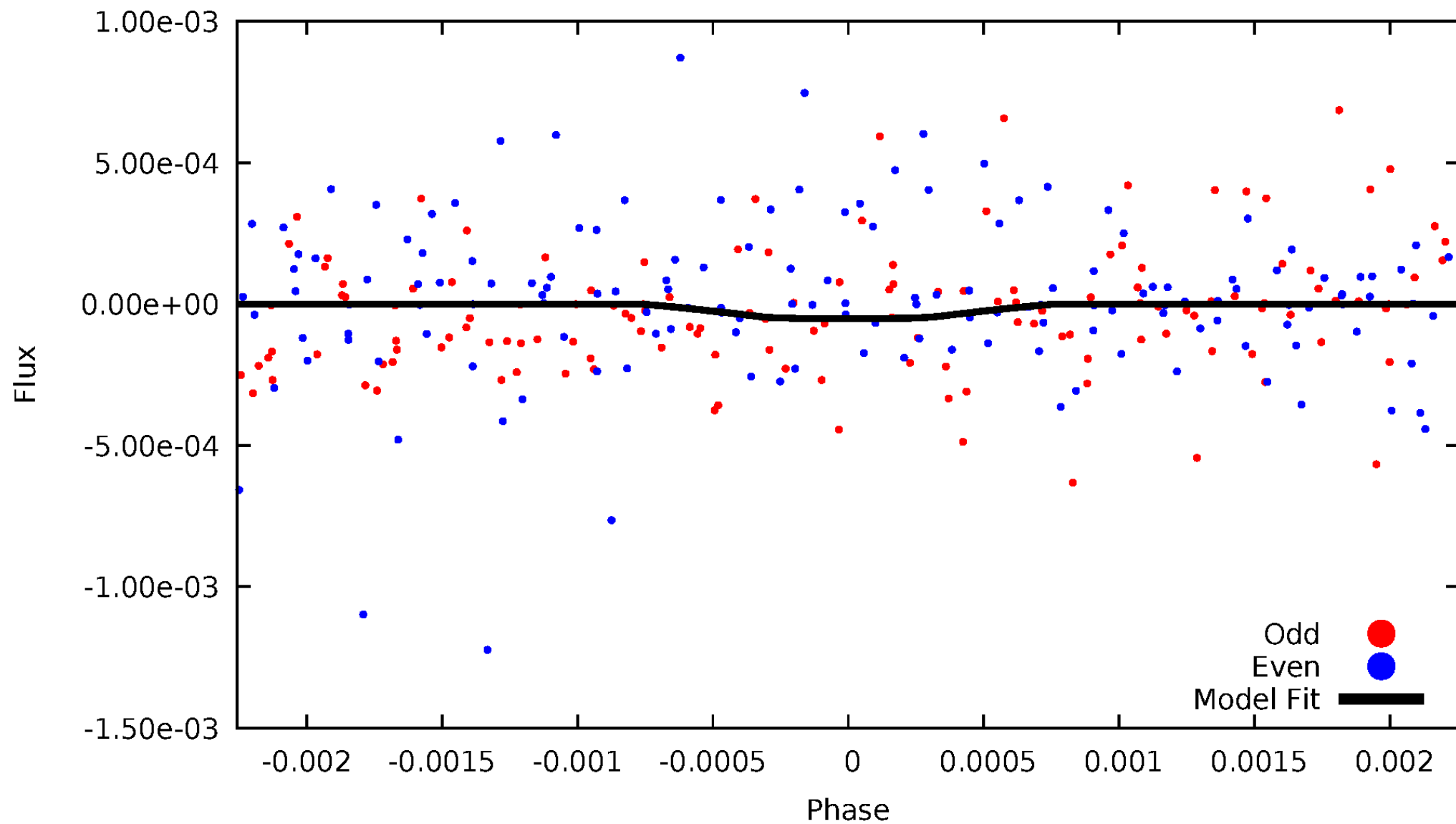


TCE 007950550-04



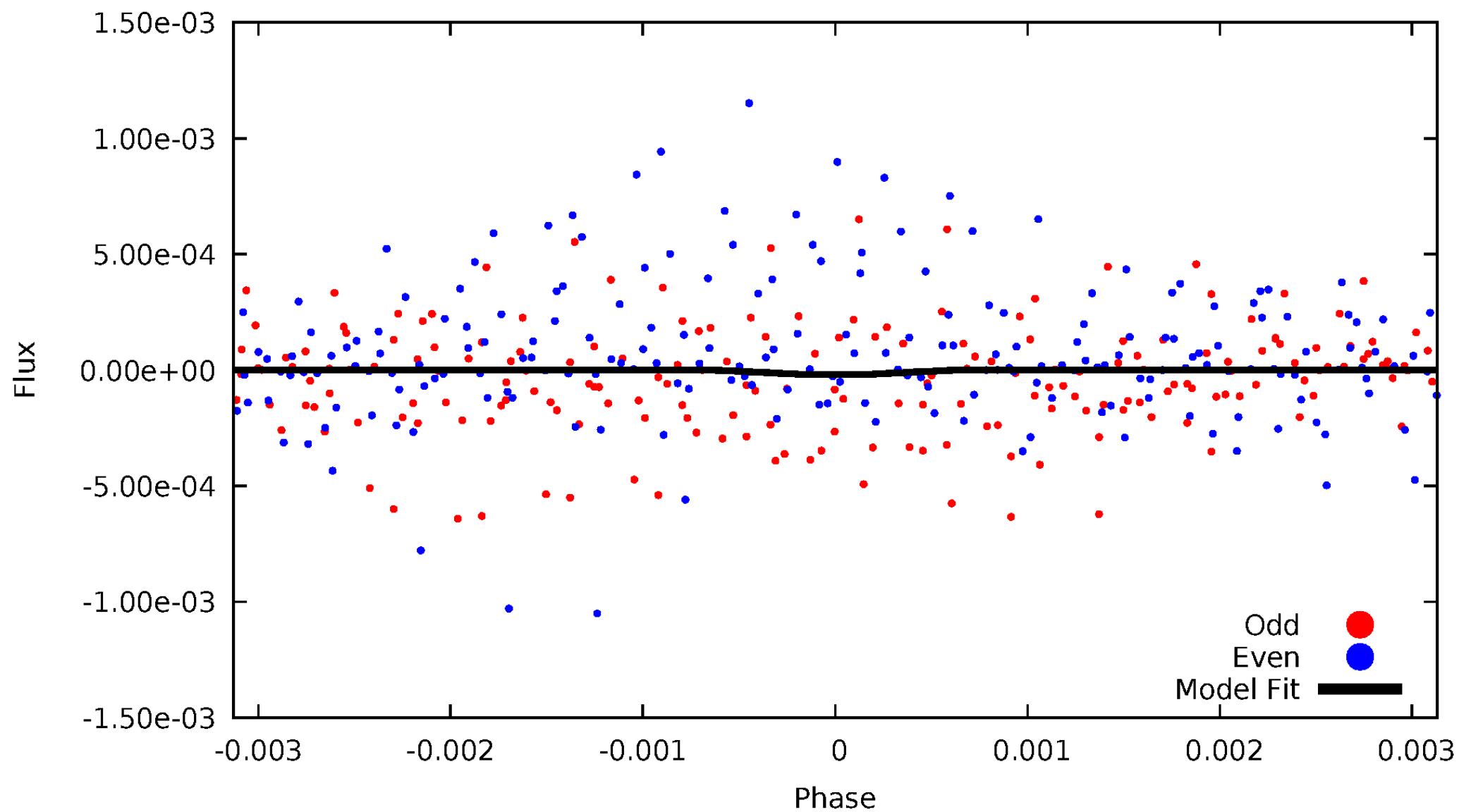
DV Odd/Even

TCE 007950550-04



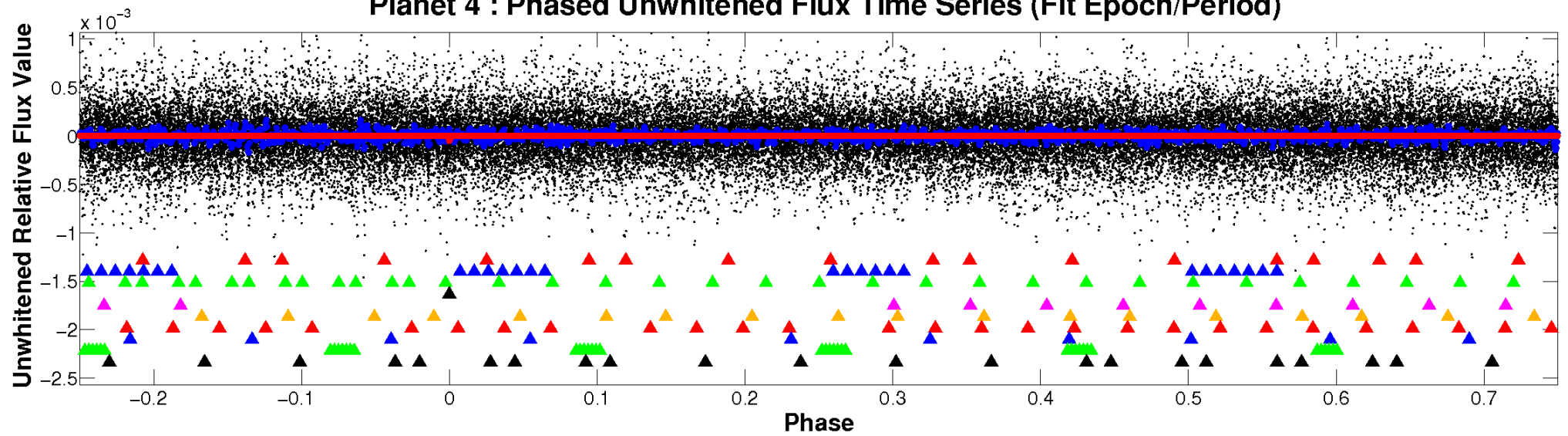
ALT Odd/Even

TCE 007950550-04

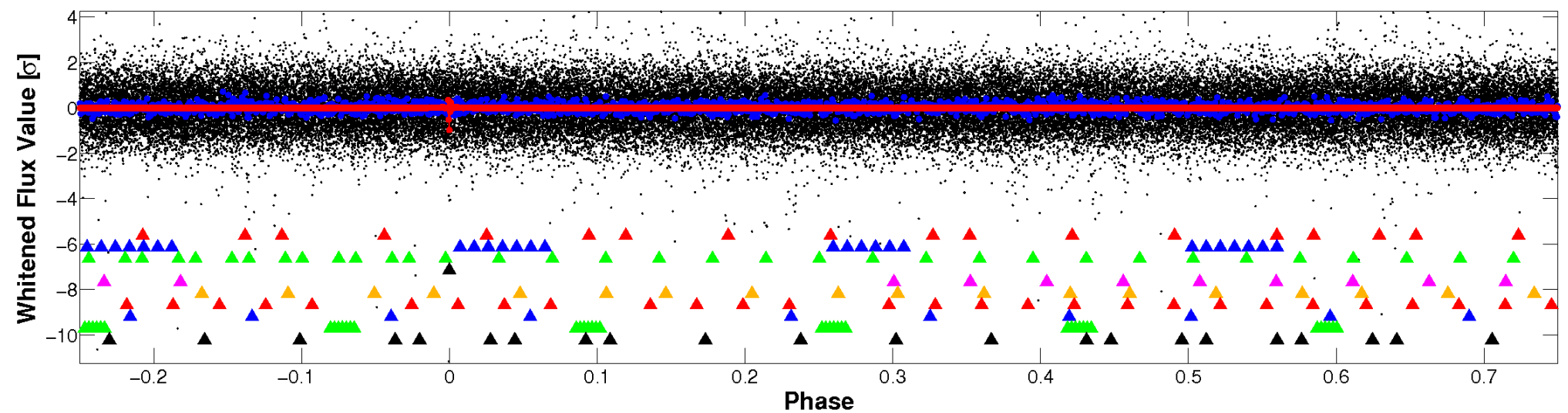


Non-Whitened Vs. Whitened Light Curve

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

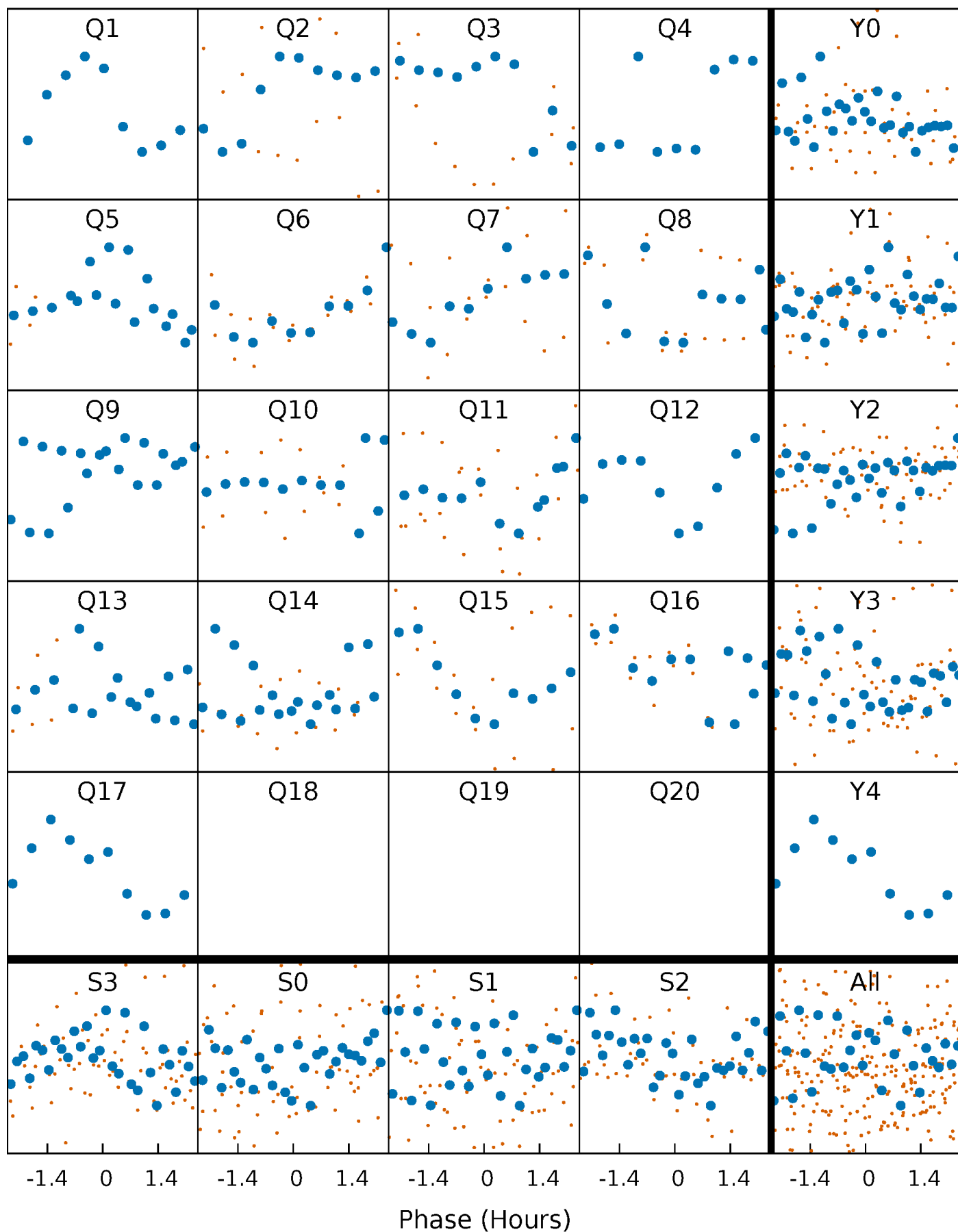


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



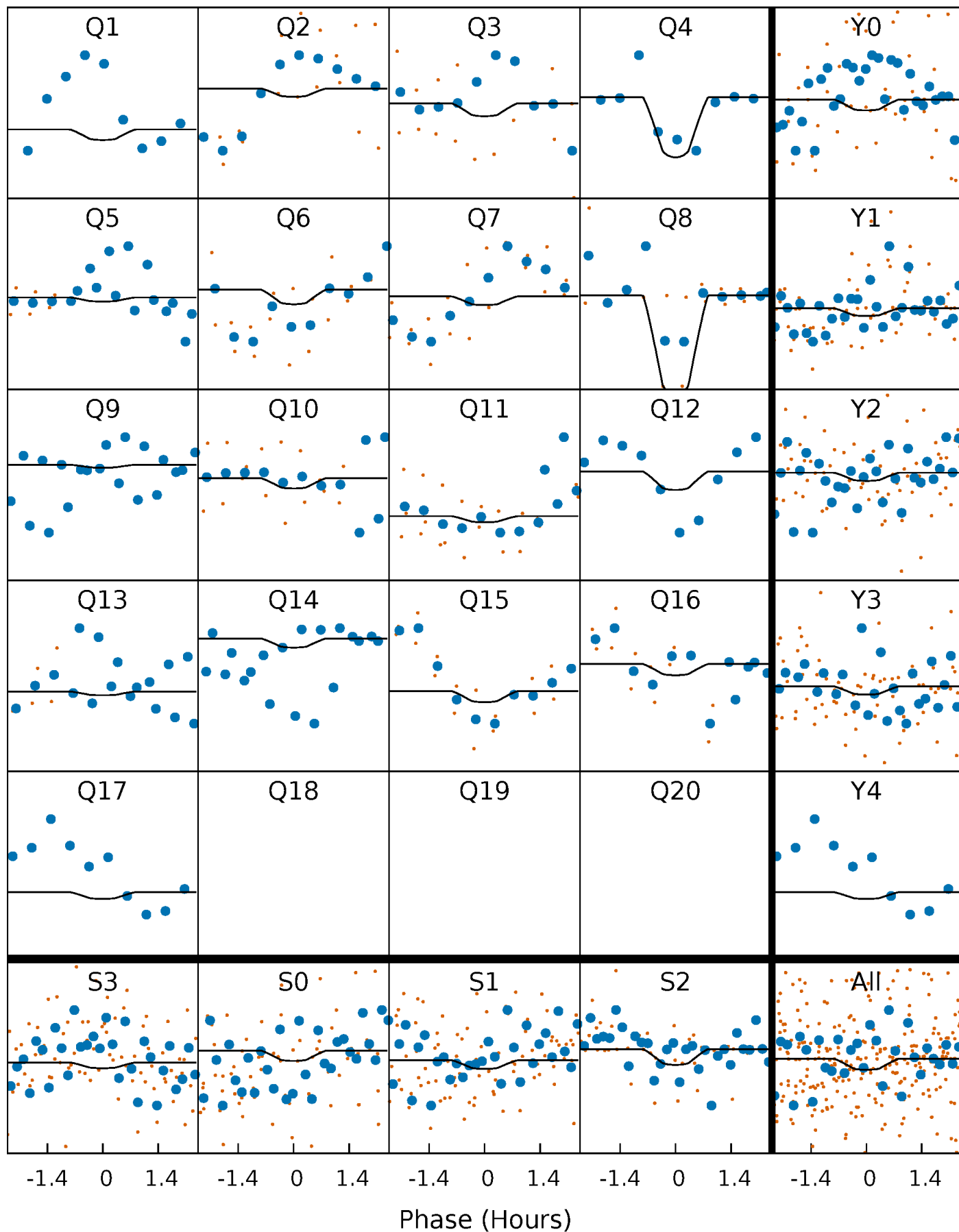
PDC Quarter-Phased Transit Curves

TCE 007950550-04 P= 44.561631 Days $T_0=161.040643$ (BKJD)



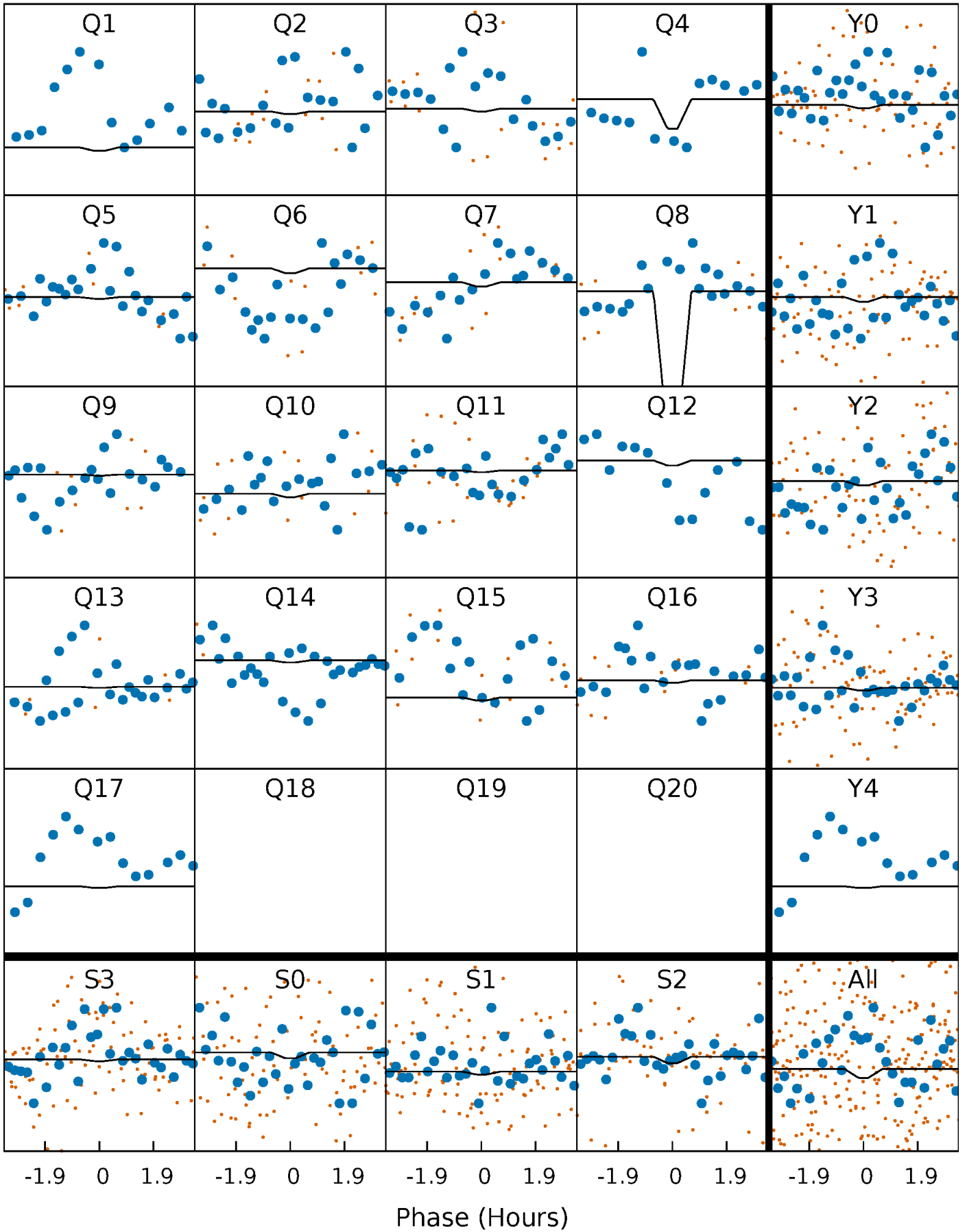
DV Quarter-Phased Transit Curves

TCE 007950550-04 P= 44.561631 Days $T_0=161.040643$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

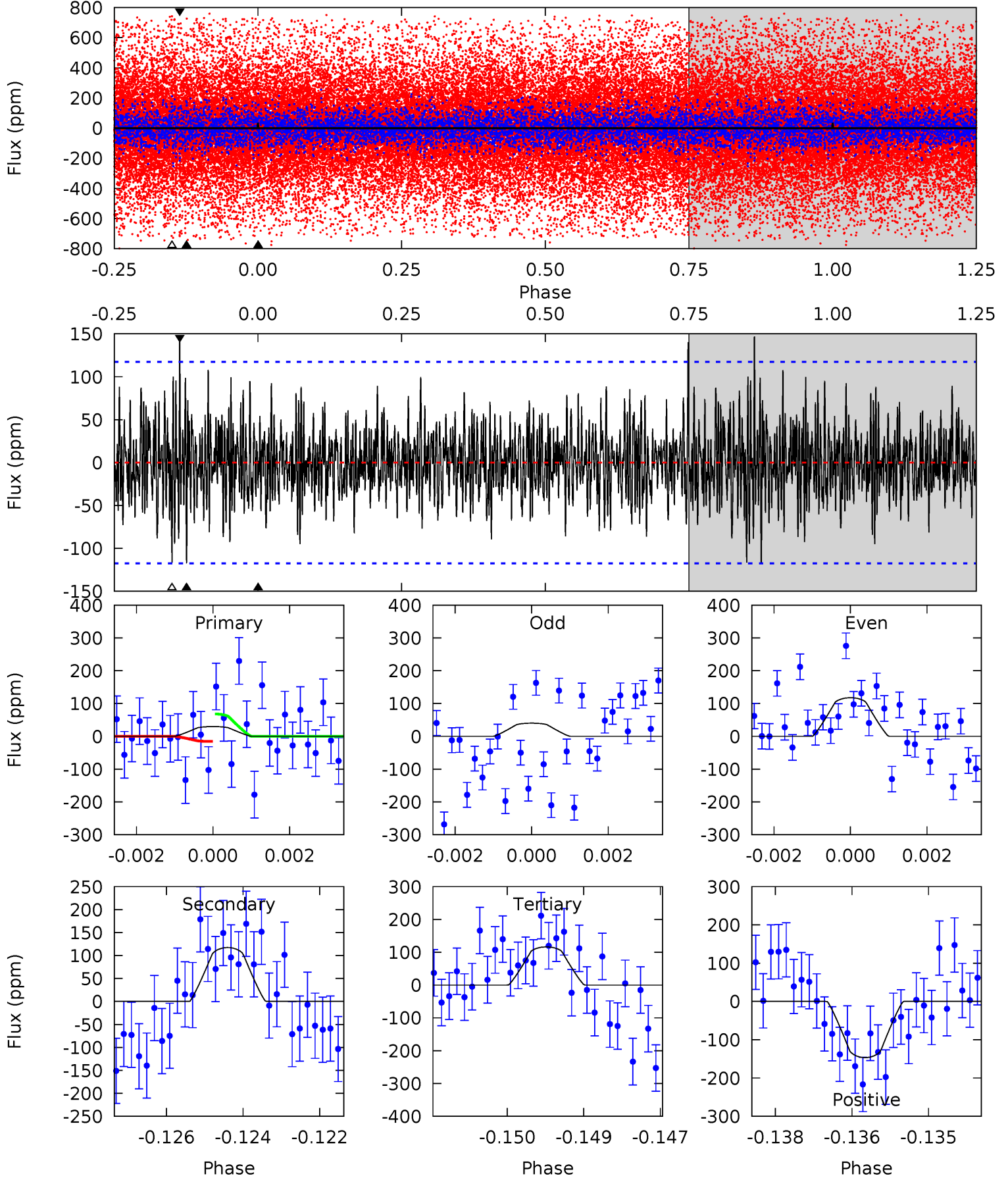
TCE 007950550-04 P= 44.561197 Days $T_0=161.043387$ (BKJD)



DV Model-Shift Uniqueness Test

007950550-04, P = 44.561631 Days, E = 116.479012 Days

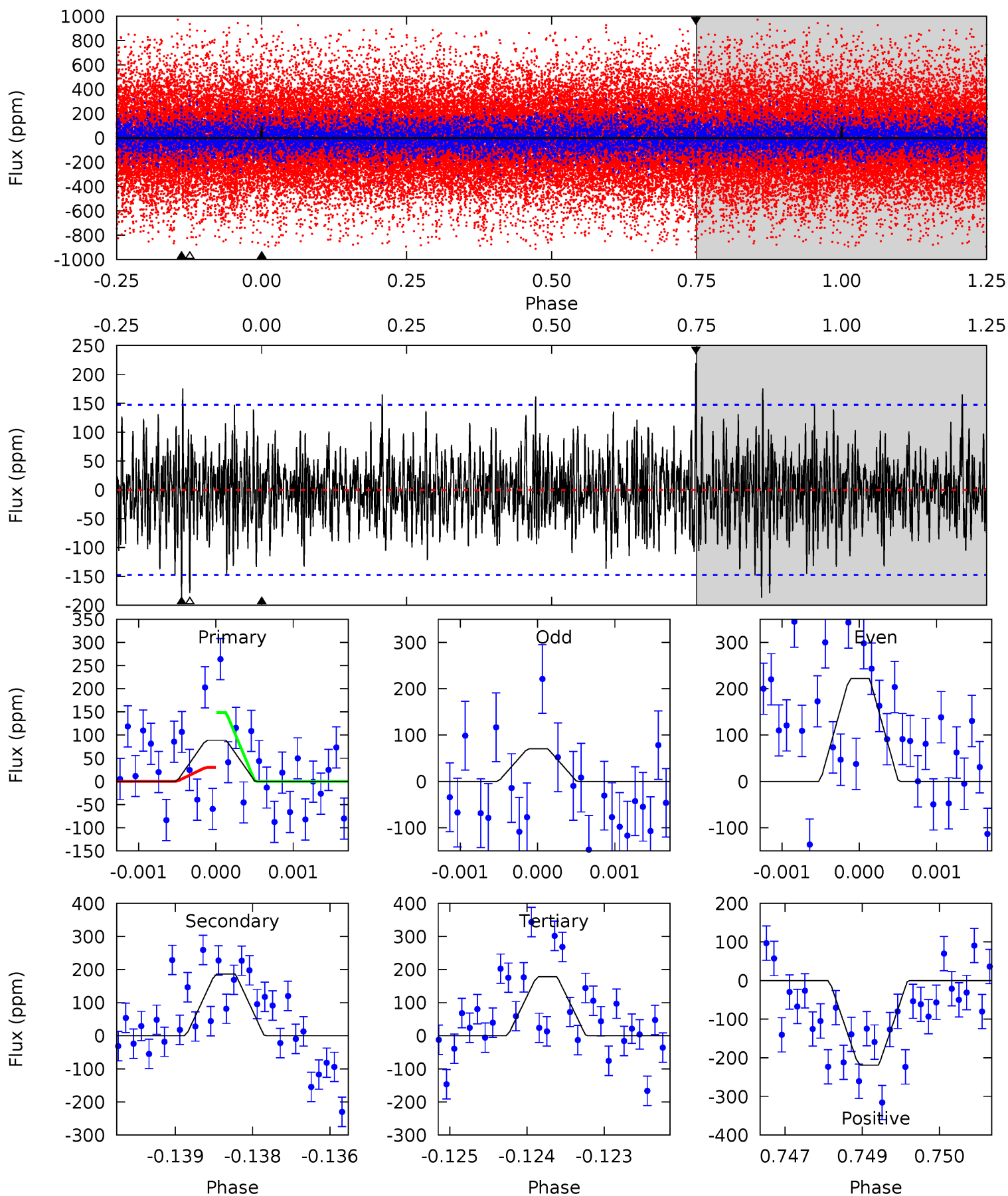
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.35	5.37	5.32	6.72	5.37	3.17	1.59	-3.97	-5.36	0.05	-1.35	1.80	-2.29	0.56	1.21



Alt Model-Shift Uniqueness Test

007950550-04, P = 44.561197 Days, E = 116.482190 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.27	6.85	6.56	8.05	5.41	3.23	1.81	-3.29	-4.78	0.29	-1.20	2.79	3.55	0.54	2.18



Stellar Parameters For KIC 007950550

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4929^{+38}_{-135}	$2.688^{+0.030}_{-0.030}$	$-0.200^{+0.100}_{-0.150}$	$10.657^{+1.098}_{-2.562}$	$2.022^{+0.770}_{-0.847}$	$0.002^{+0.001}_{-0.000}$
	+1%/-3%	+1%/-1%	+50%/-75%	+10%/-24%	+38%/-42%	+34%/-9%
Source	PHO55	AST55	SPE55	DSEP		

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

Secondary Eclipse Parameters for KIC 007950550-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-117 ± 22	$10.06^{+6.20}_{-5.29}$	1776^{+41}_{-53}	5385^{+2665}_{-945}	61^{+223}_{-37}
Alt.	-186 ± 27	$6.79^{+6.09}_{-4.43}$	1773^{+42}_{-60}	7456^{+9180}_{-2083}	220^{+1575}_{-159}

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

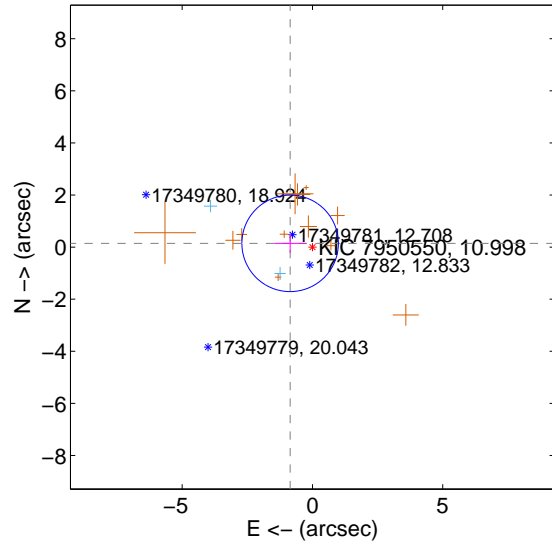
Supplemental centroid analysis for 007950550-04. **Kepler magnitude: 11.00.** Transit SNR 18.39

There are 2 quarters with good PRF difference image offsets

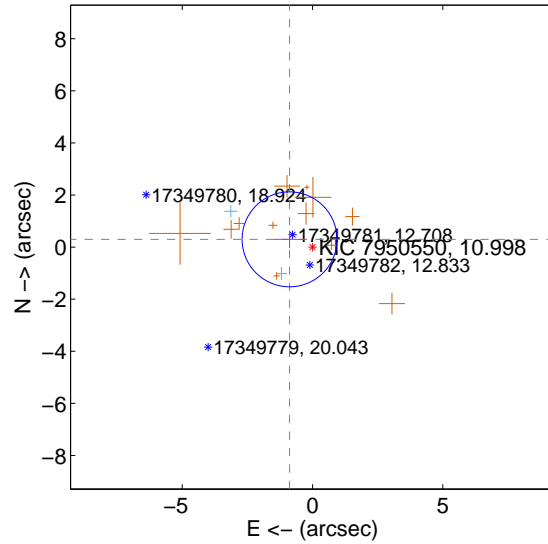
The direct PRF centroid is offset from the target star catalog position by about 0.57 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.869 ± 0.617	1.41	0.857 ± 0.603	0.144 ± 0.362
PRF-fit source offset from KIC position	0.931 ± 0.607	1.53	0.882 ± 0.602	0.298 ± 0.341
photometric centroid source offset	2.67 ± 1.69	1.58	-0.94 ± 1.86	-2.50 ± 1.67

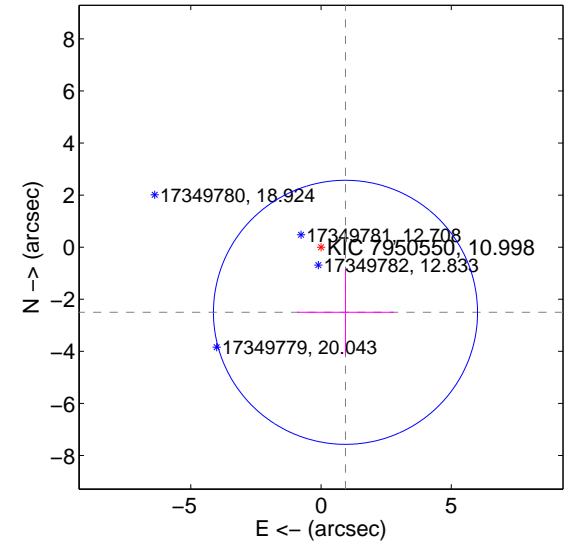
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

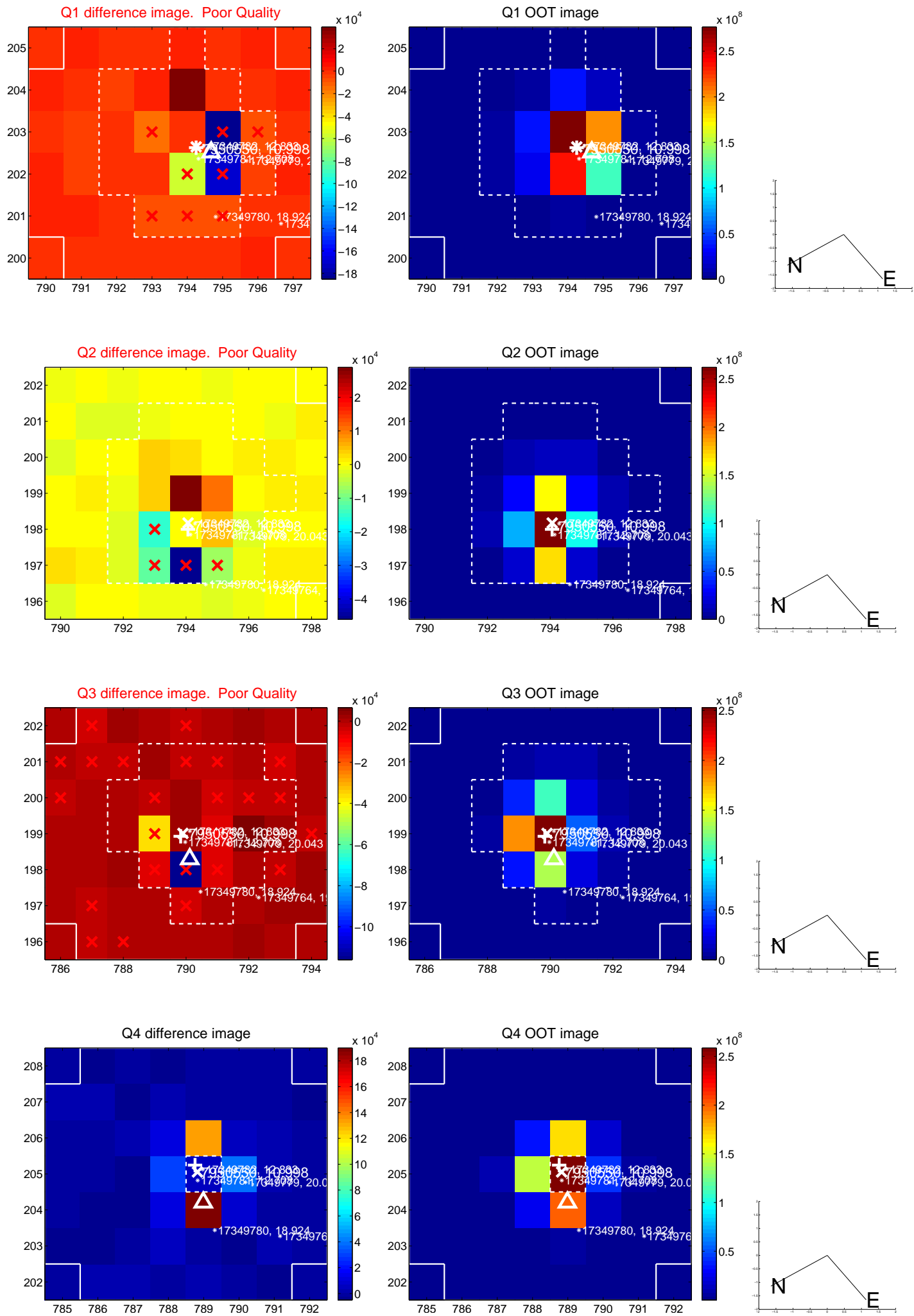


offset from photometric centroids

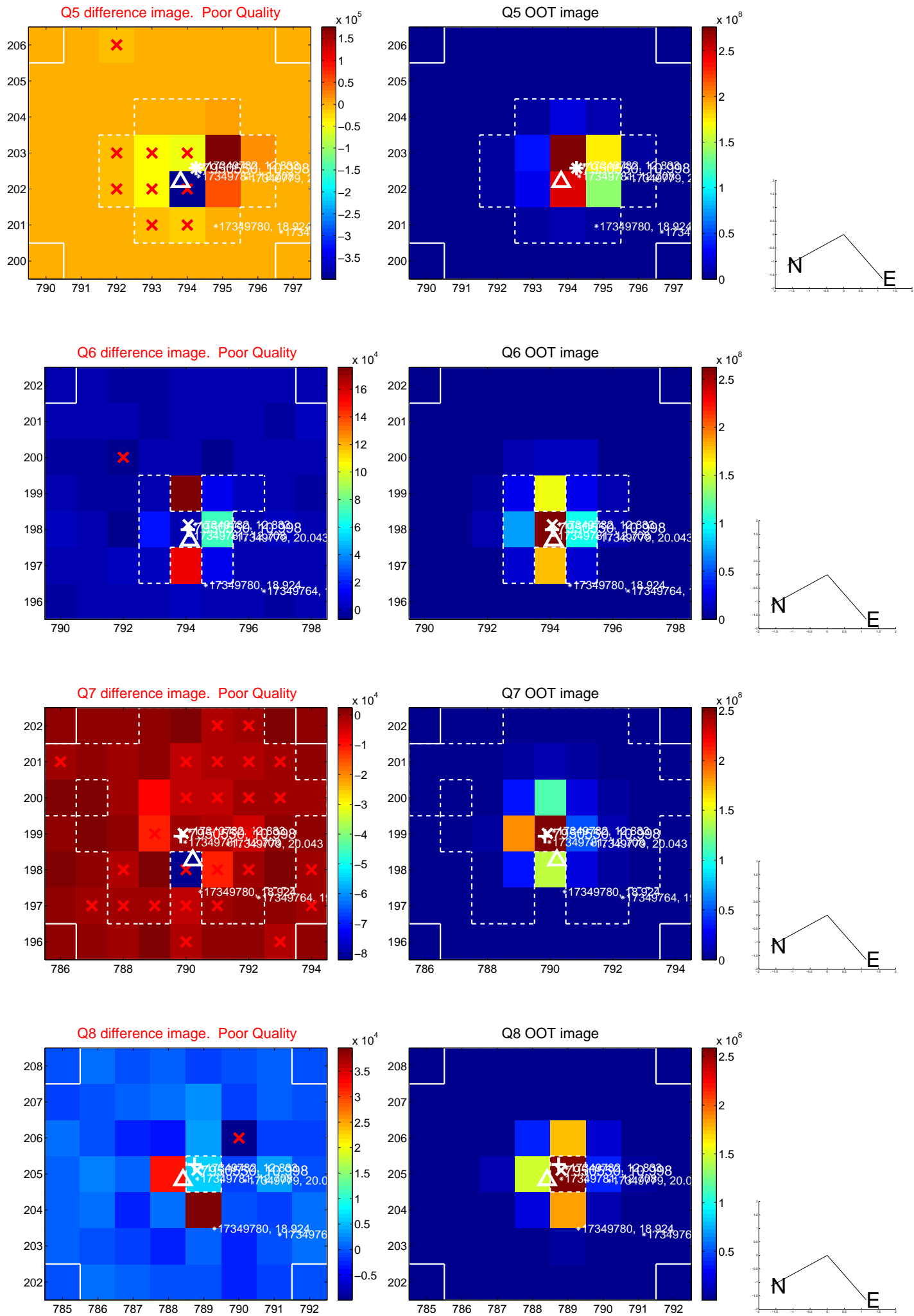


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

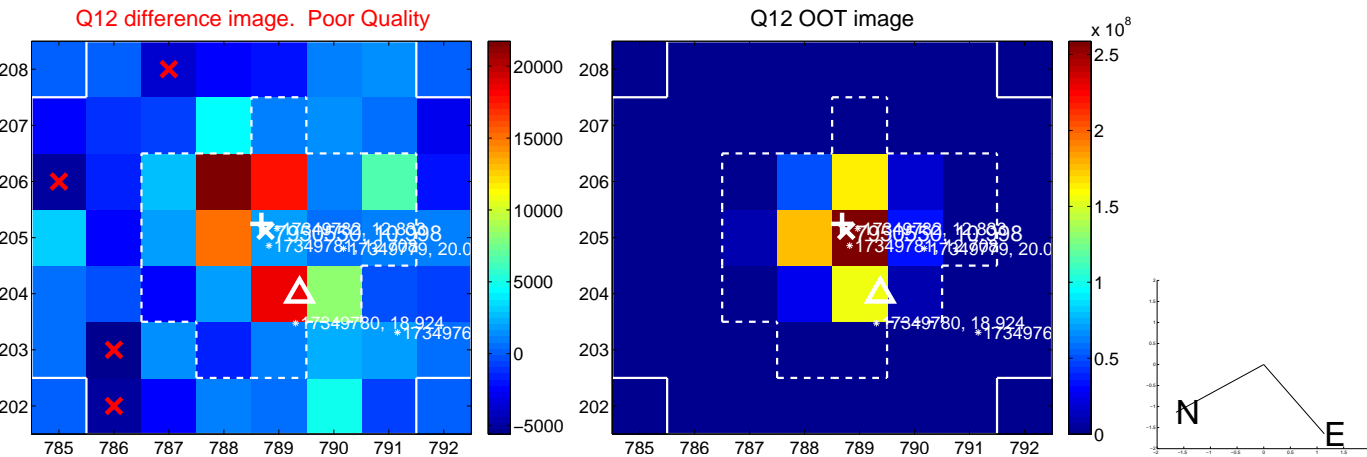
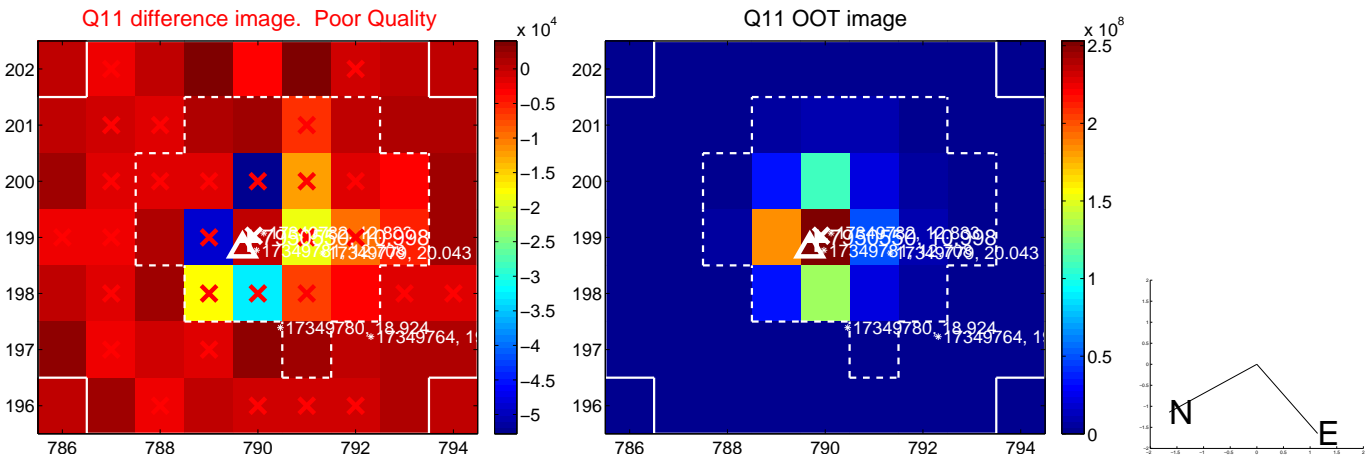
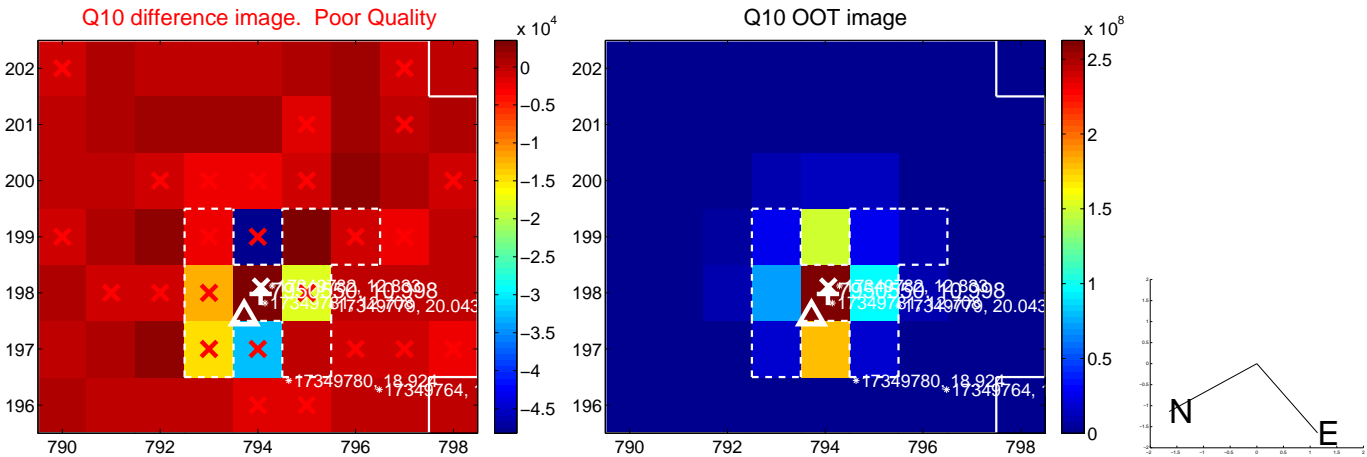
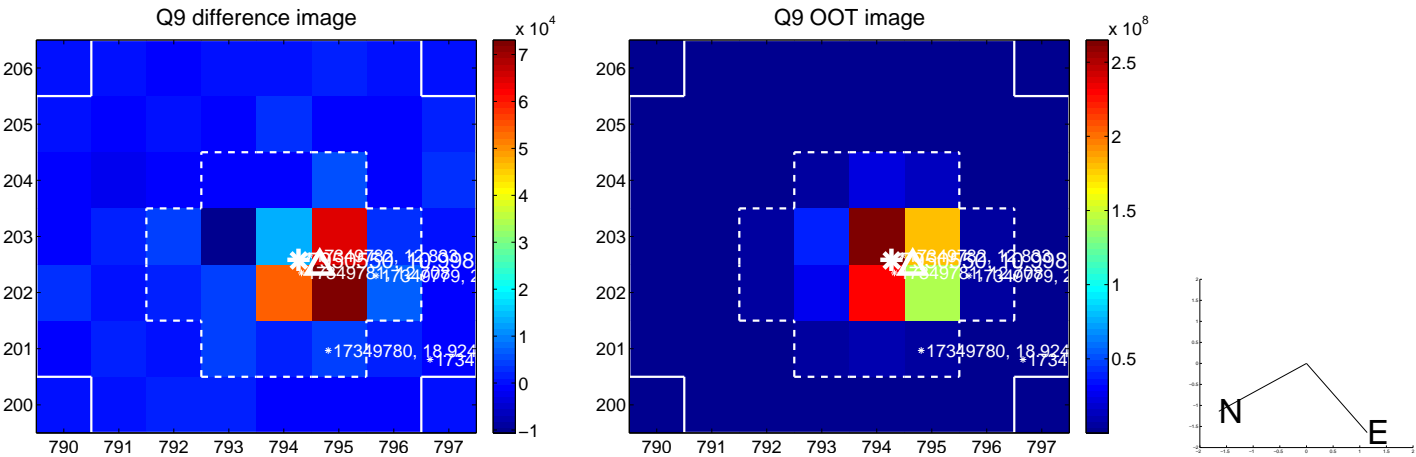
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



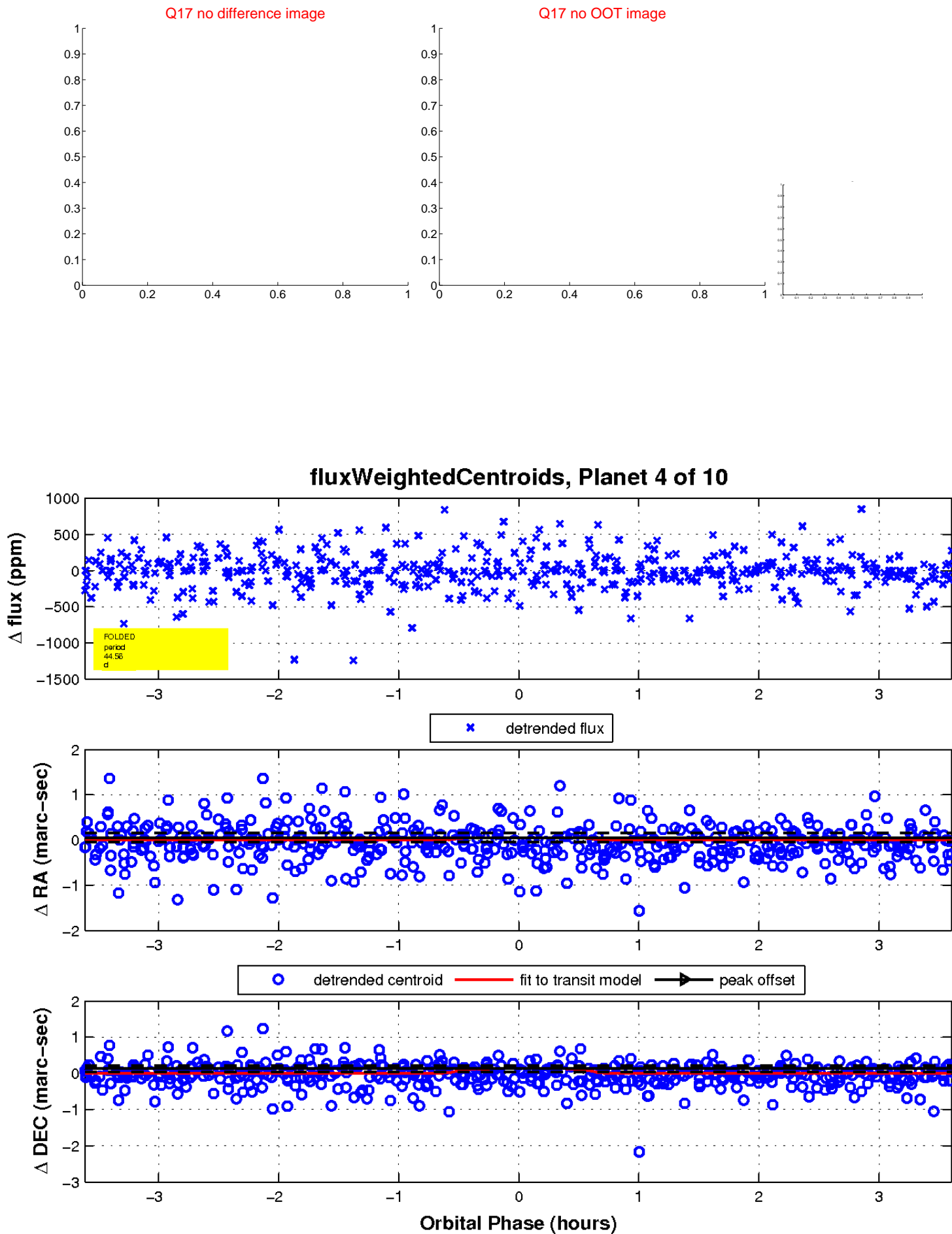
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

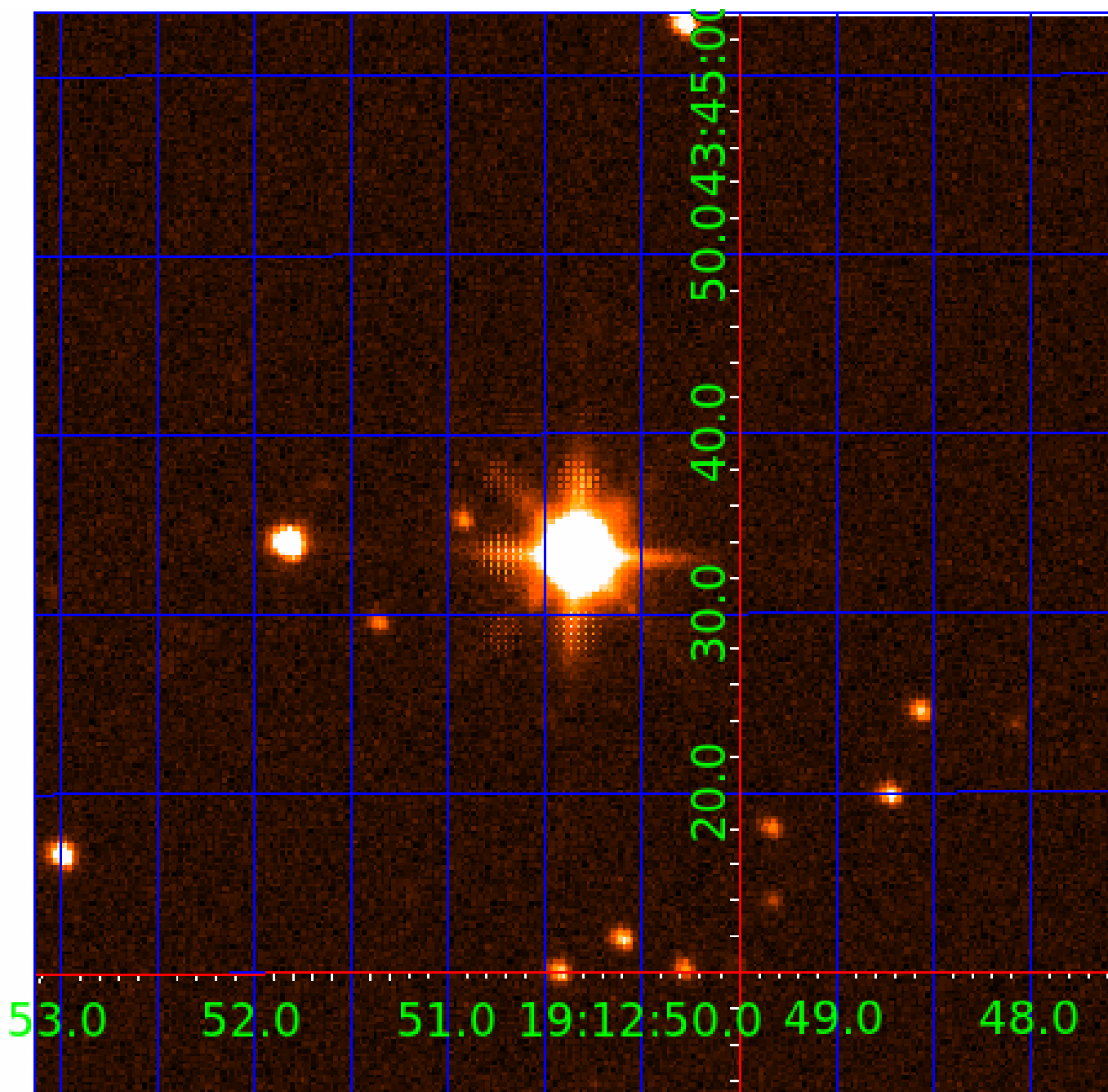


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007950550

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})
007950550-01	OBS	No	78.754453	187.099506	53.7	1.615	31.6	16.3	10.66	4929	9.55	290.62
007950550-02	OBS	No	55.808550	138.872074	58.3	3.245	15.3	17.3	10.66	4929	9.37	459.99
007950550-03	OBS	No	42.951829	159.829241	41.0	5.498	15.7	11.4	10.66	4929	8.16	652.20
007950550-04	OBS	No	44.561631	161.040643	52.2	1.207	15.2	18.4	10.66	4929	9.53	620.97
007950550-05	OBS	No	131.379320	242.059586	29.5	11.224	15.0	7.7	10.66	4929	6.93	146.89
007950550-06	OBS	No	82.129715	143.985409	37.5	16.367	15.4	8.8	10.66	4929	7.65	274.80
007950550-07	OBS	No	51.755812	179.880861	10.9	1.900	14.1	3.5	10.66	4929	3.63	508.64
007950550-08	OBS	No	149.936248	138.841227	69.5	7.544	22.6	16.5	10.66	4929	10.82	123.16
007950550-09	OBS	No	37.154510	135.118424	21.9	8.813	14.3	8.8	10.66	4929	5.95	791.29
007950550-10	OBS	No	68.278848	136.425466	186.5	5.314	12.6	1.4	10.66	4929	16.52	351.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007950550-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-02	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
007950550-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007950550-06	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
007950550-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007950550-09	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
007950550-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

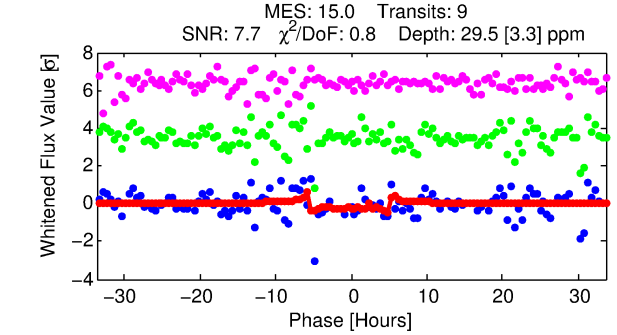
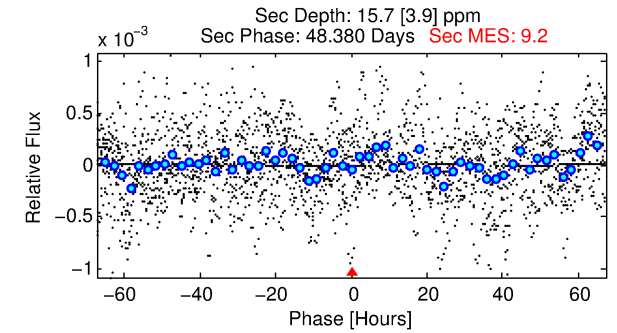
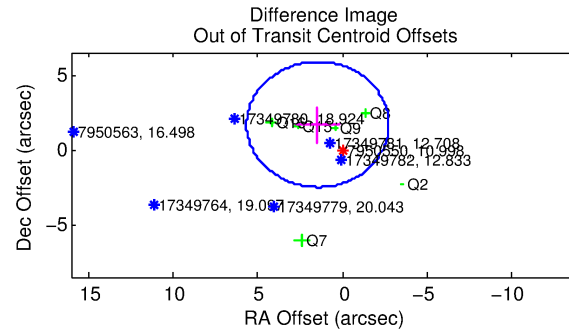
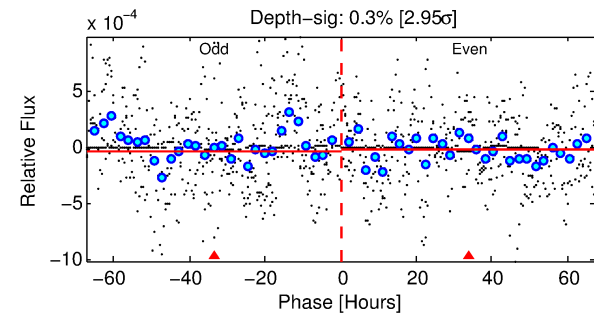
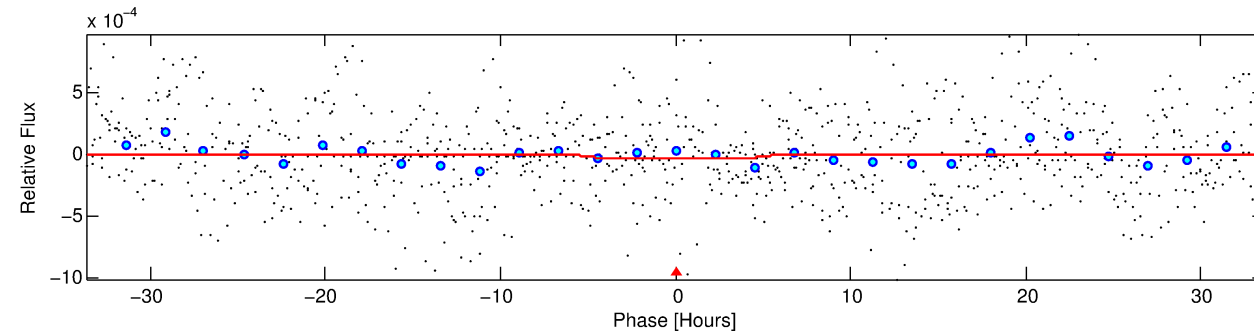
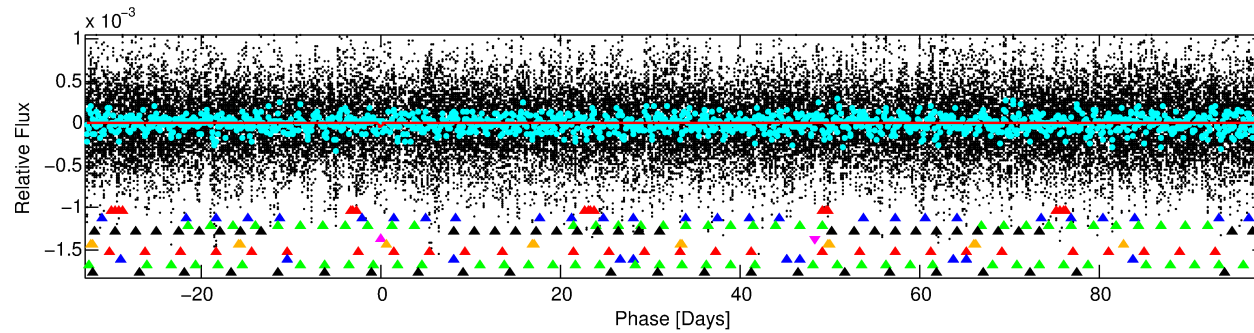
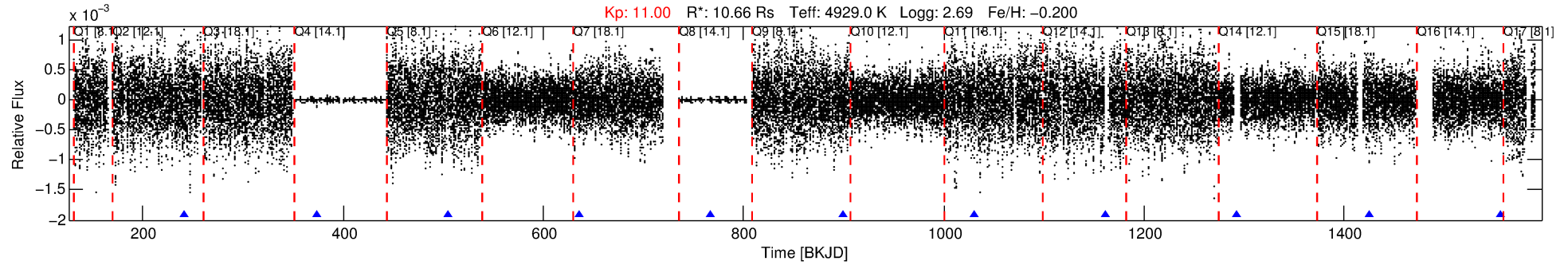
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007950550-05

No Significant Match Found

DV One-Page Summary

KIC: 7950550 Candidate: 5 of 10 Period: 131.379 d



DV Fit Results:

Period = 131.37932 [0.00189] d
Epoch = 242.0596 [0.0046] BKJD
Rp/R* = 0.0060 [0.0006]
a/R* = 42.45 [13.61]
b = 0.89 [0.08]
Seff = 146.89 [29.31]
Teff = 888 [44] K
Rp = 6.93 [1.82] Re
a = 0.6394 [0.1035] AU
Ag = 73.57 [26.81] [2.71 σ]
Teffp = 4020 [344] K [9.04 σ]

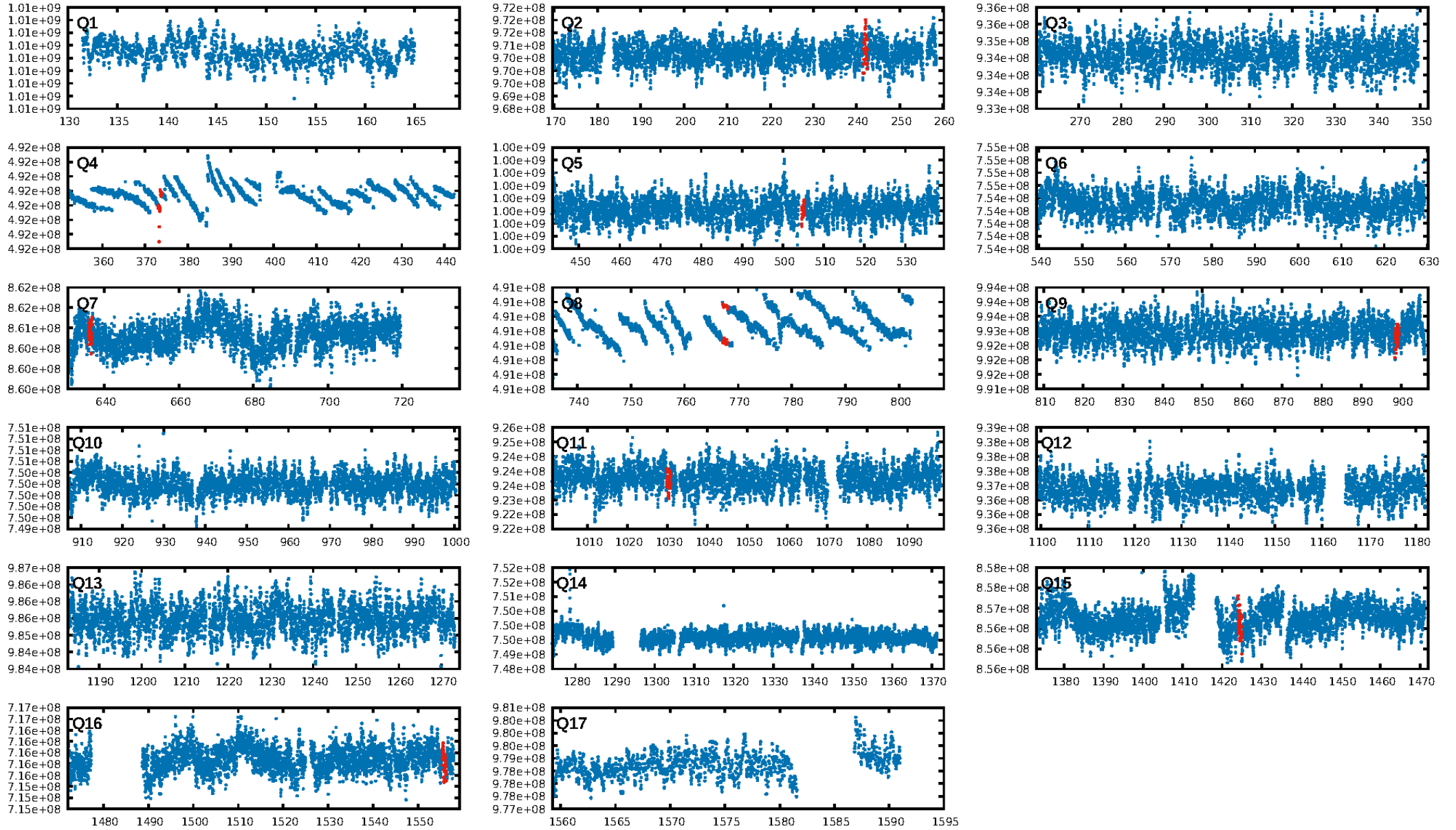
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [59.56 σ]
LongPeriod-sig: 100.0% [32.93 σ]
ModelChiSquare2-sig: 69.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [9/9]
GhostDiagnostic-chr: 0.522
Centroid-sig: 83.2%
Centroid-so: 1.661 arcsec [0.37 σ]
OotOffset-rm: 2.230 arcsec [1.60 σ]
OotOffset-st: 1/2/2/1 [6]
KicOffset-rm: 2.288 arcsec [1.62 σ]
KicOffset-st: 1/2/2/1 [6]
DiffImageQuality-fgm: 0.17 [1/6]
DiffImageOverlap-fno: 0.67 [4/6]

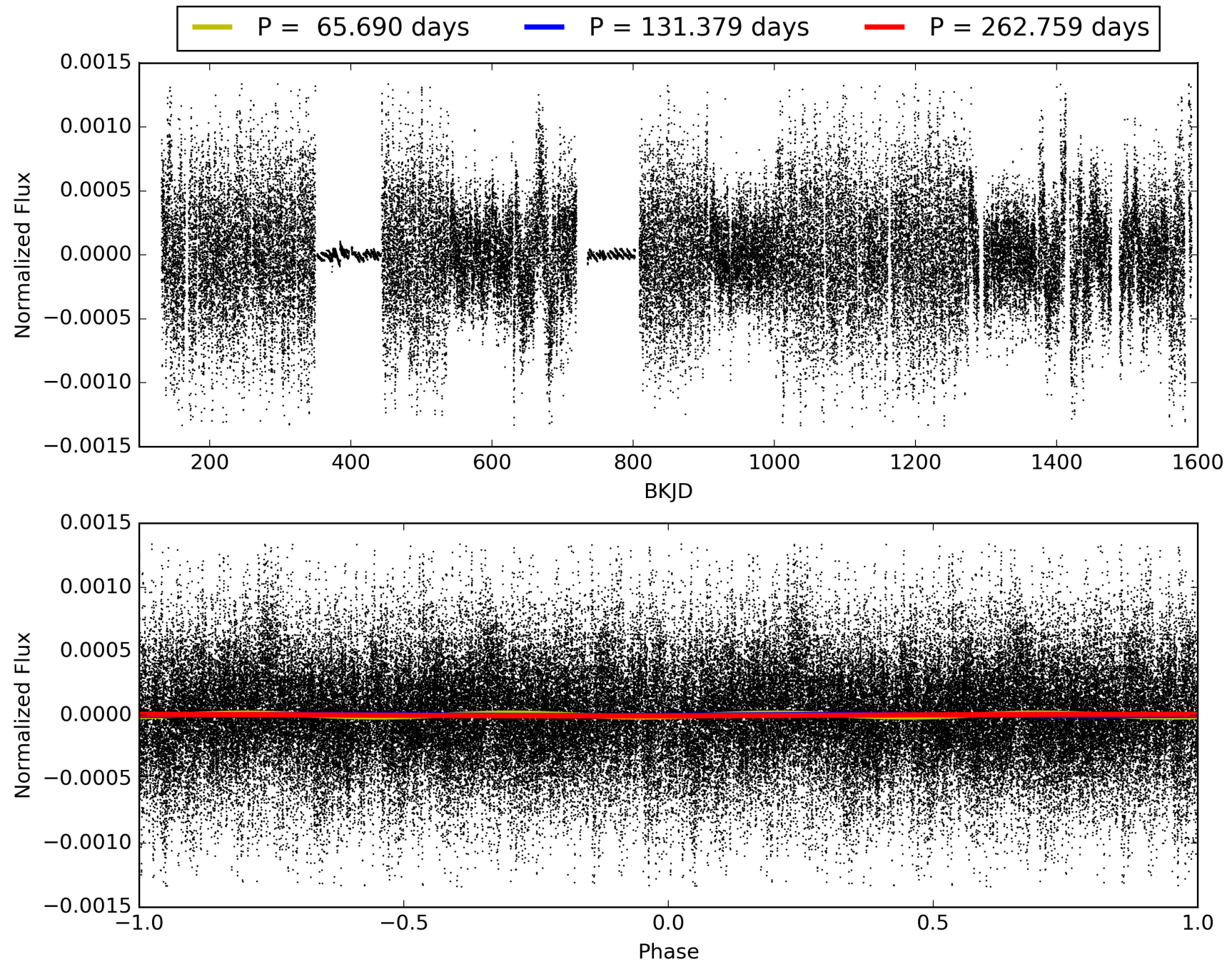
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:46:19 Z

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

TCE 007950550-05, PDC Light Curves

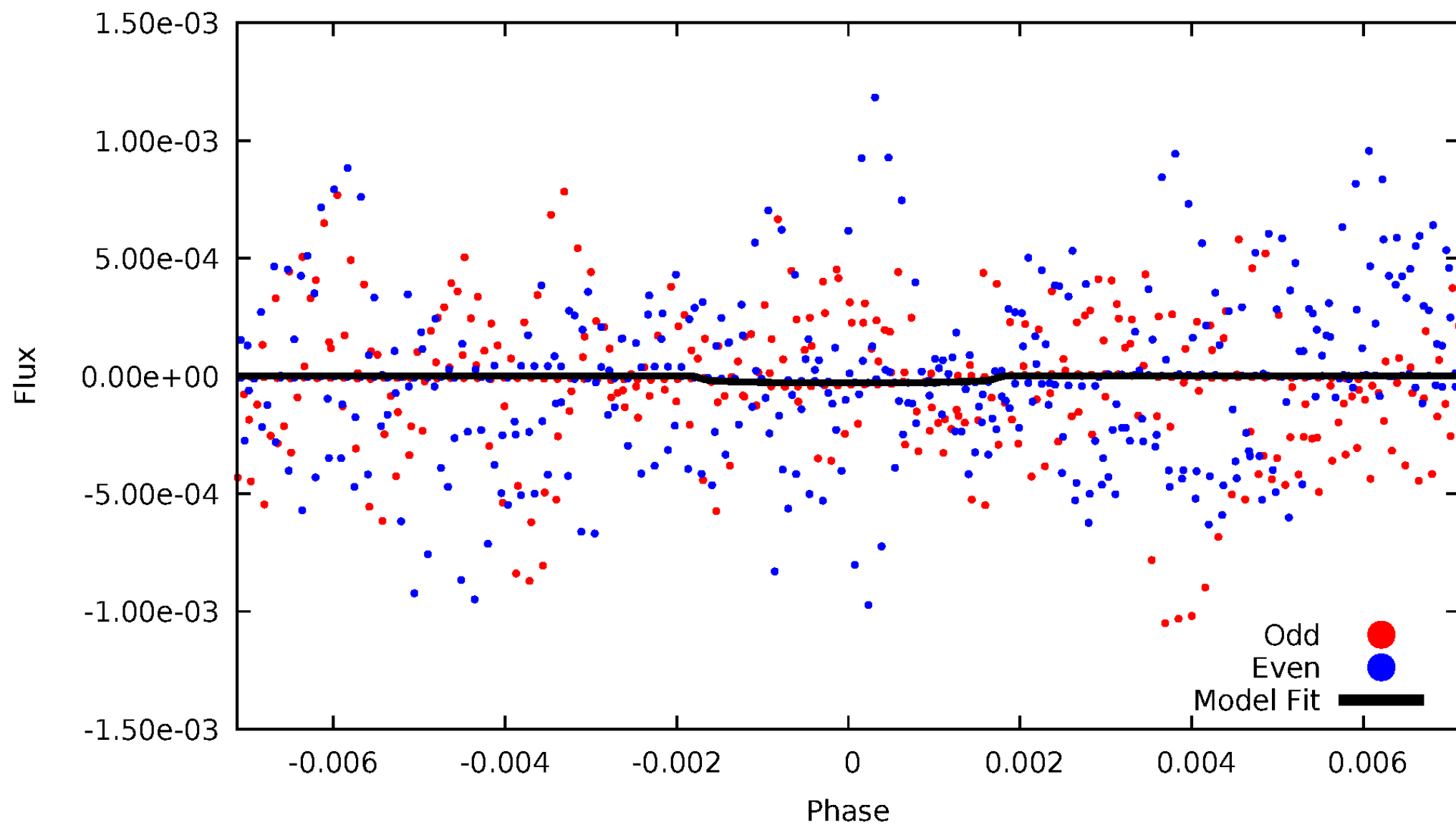


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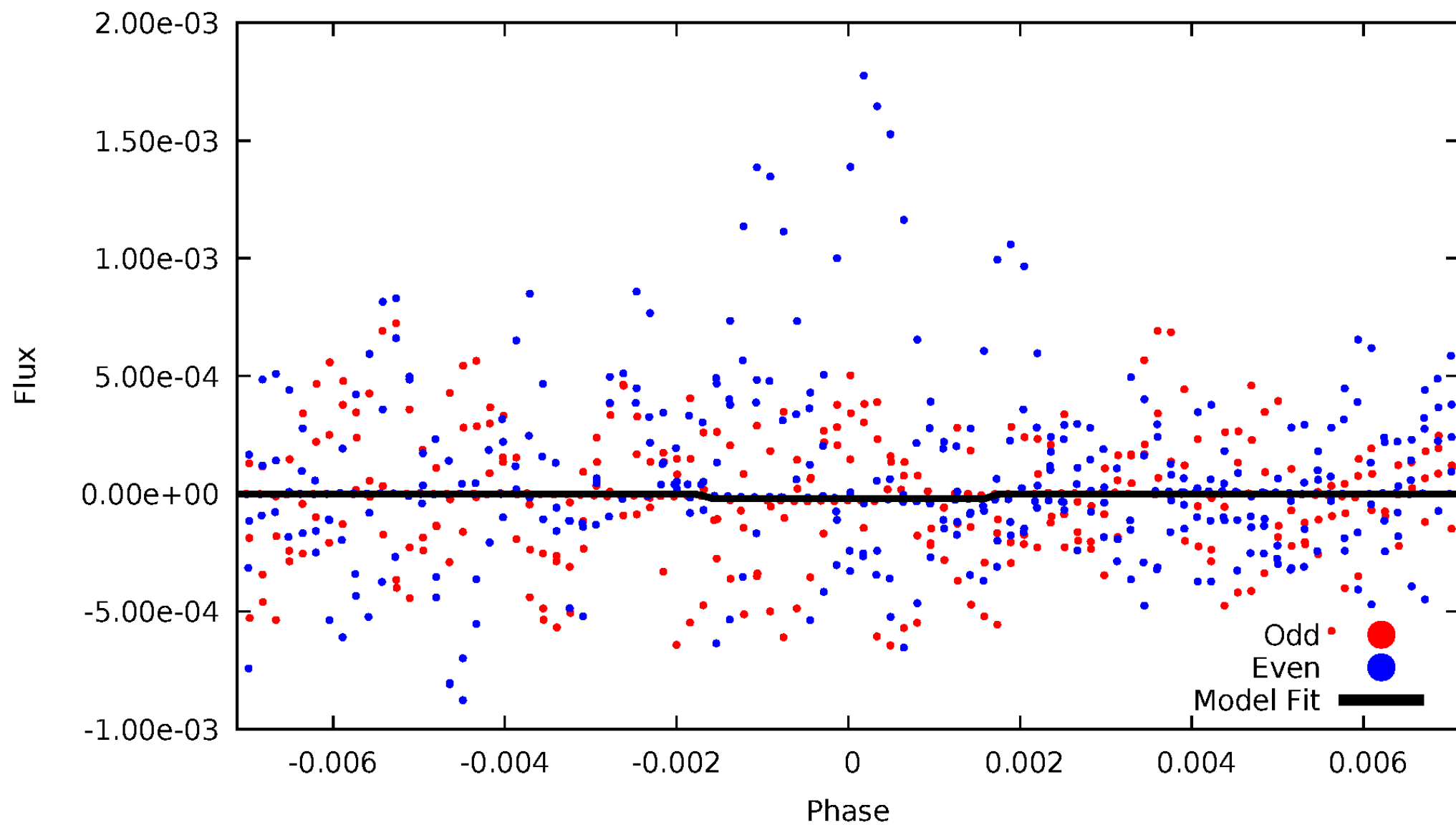
DV Odd/Even

TCE 007950550-05



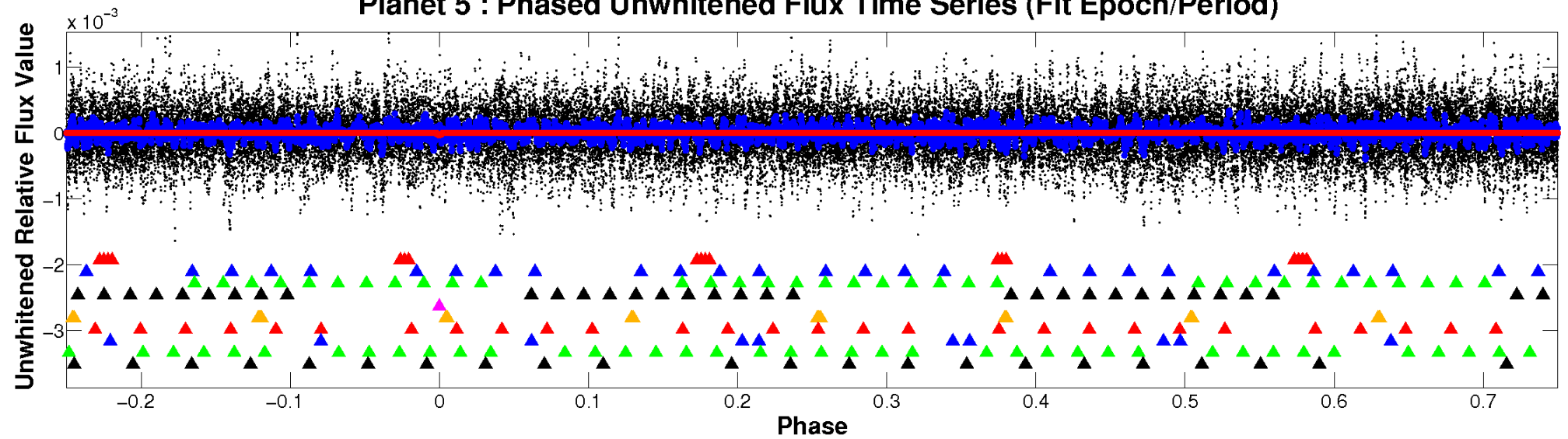
ALT Odd/Even

TCE 007950550-05

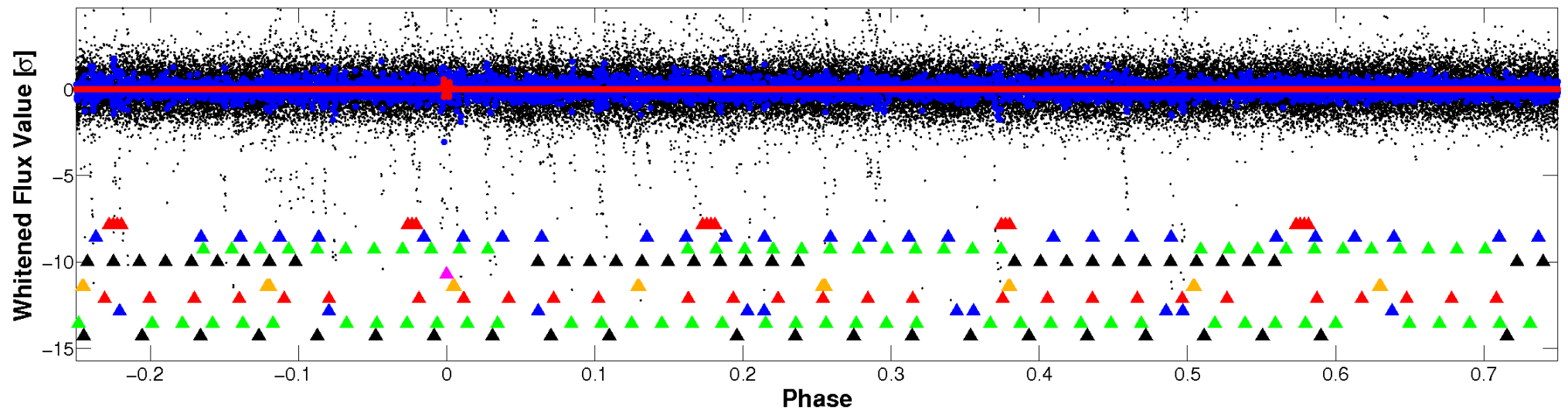


Non-Whitened Vs. Whitened Light Curve

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 007950550-05 $P=131.379320$ Days $T_0=242.059586$ (BKJD)



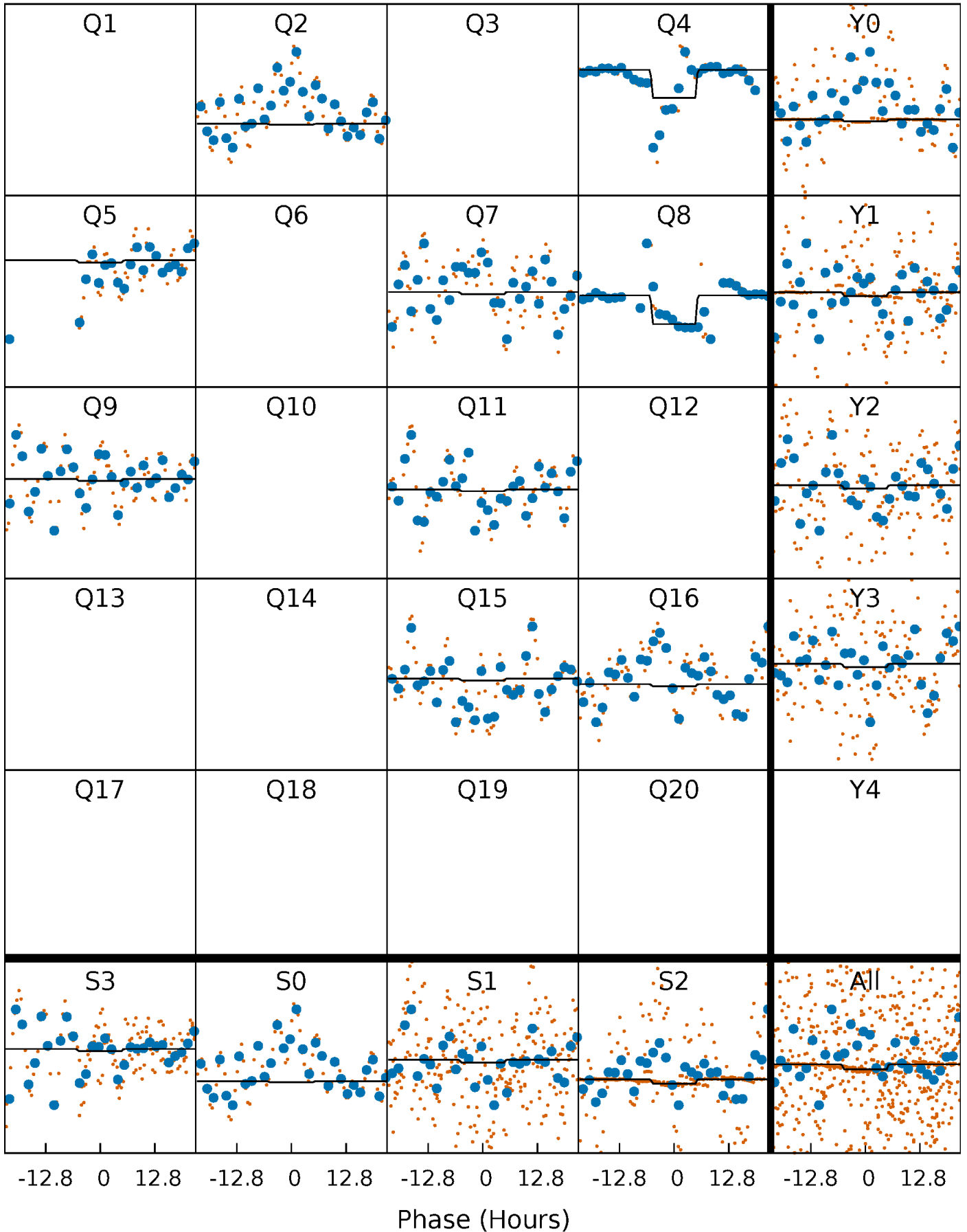
DV Quarter-Phased Transit Curves

TCE 007950550-05 $P=131.379320$ Days $T_0=242.059586$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

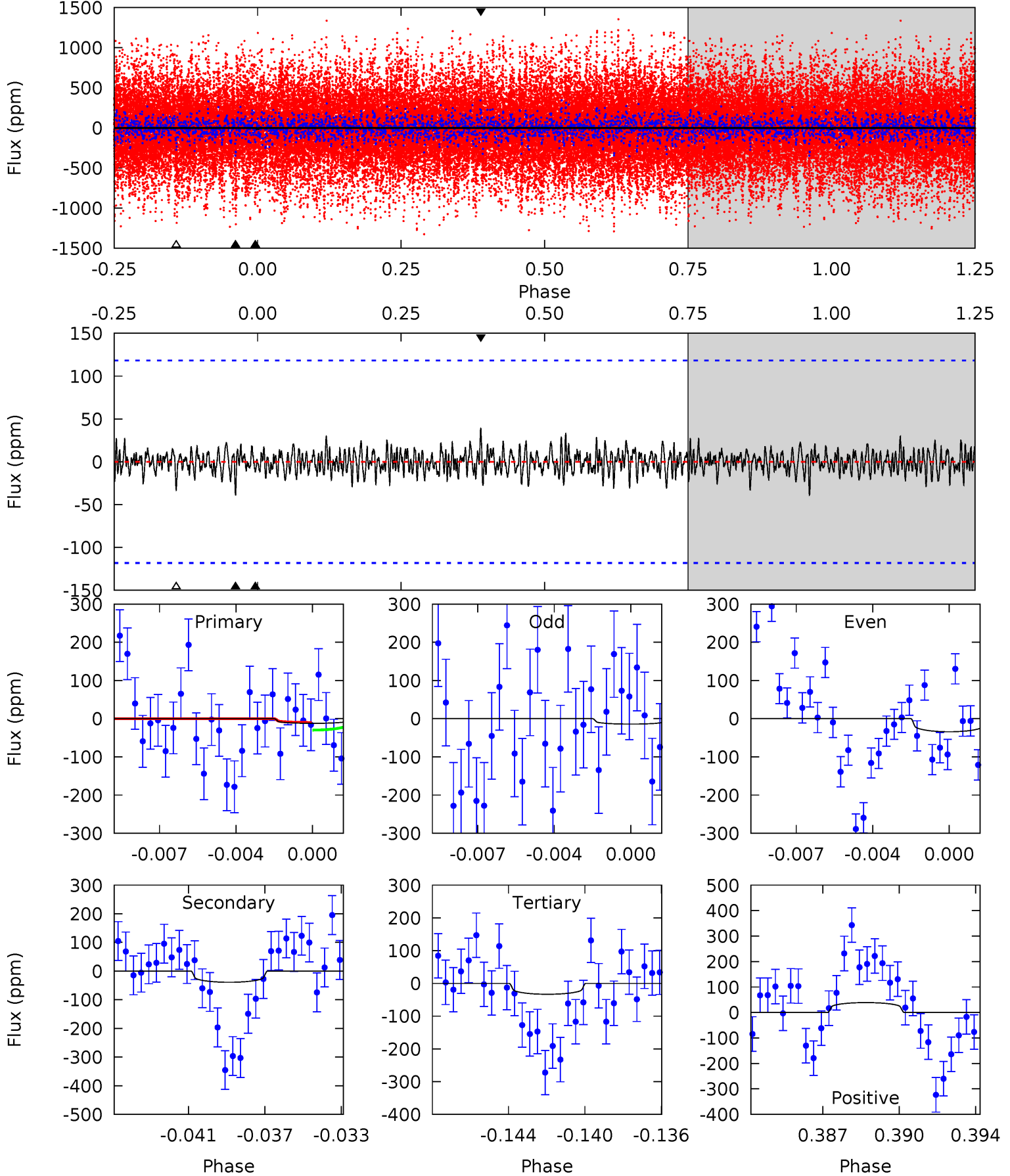
TCE 007950550-05 $P=131.367357$ Days $T_0=242.076901$ (BKJD)



DV Model-Shift Uniqueness Test

007950550-05, P = 131.379320 Days, E = 110.680266 Days

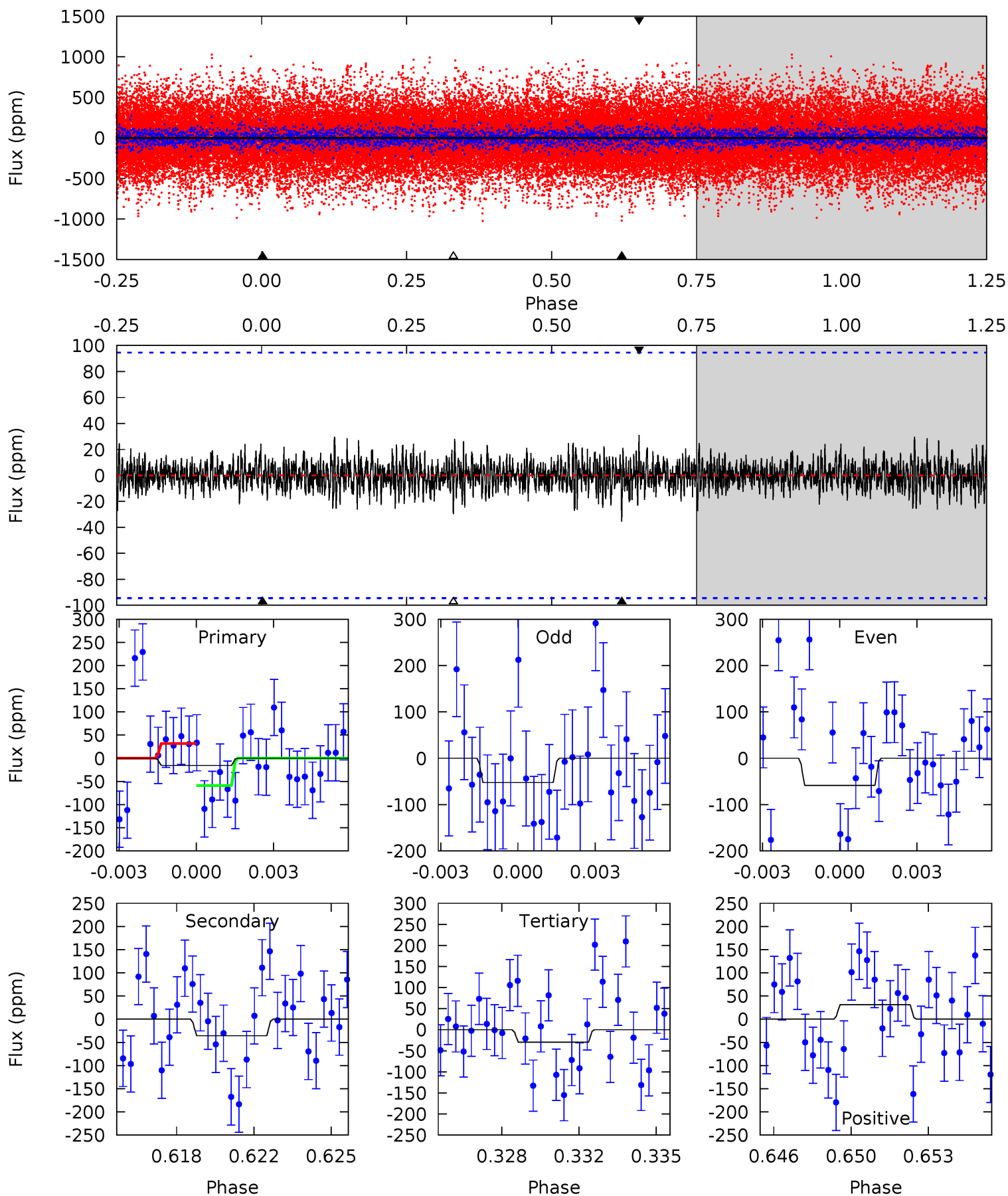
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.54	1.72	1.47	1.72	5.21	2.90	0.48	-0.92	-1.18	0.26	0.00	0.44	0.74	0.50	0.44



Alt Model-Shift Uniqueness Test

007950550-05, $P = 131.367357$ Days, $E = 110.709544$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.85	1.97	1.65	1.72	5.23	2.92	0.48	-0.79	-0.87	0.32	0.24	0.17	-2.18	0.47	0.76



Stellar Parameters For KIC 007950550

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4929^{+38}_{-135}	$2.688^{+0.030}_{-0.030}$	$-0.200^{+0.100}_{-0.150}$	$10.657^{+1.098}_{-2.562}$	$2.022^{+0.770}_{-0.847}$	$0.002^{+0.001}_{-0.000}$
	+1%/-3%	+1%/-1%	+50%/-75%	+10%/-24%	+38%/-42%	+34%/-9%
Source	PHO55	AST55	SPE55	DSEP		

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

Secondary Eclipse Parameters for KIC 007950550-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-39 ± 23	$7.04^{+1.06}_{-1.07}$	1237^{+27}_{-41}	4966^{+616}_{-763}	184^{+120}_{-109}
Alt.	-36 ± 18	$5.46^{+0.92}_{-0.92}$	1234^{+31}_{-41}	5414^{+716}_{-834}	270^{+179}_{-148}

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

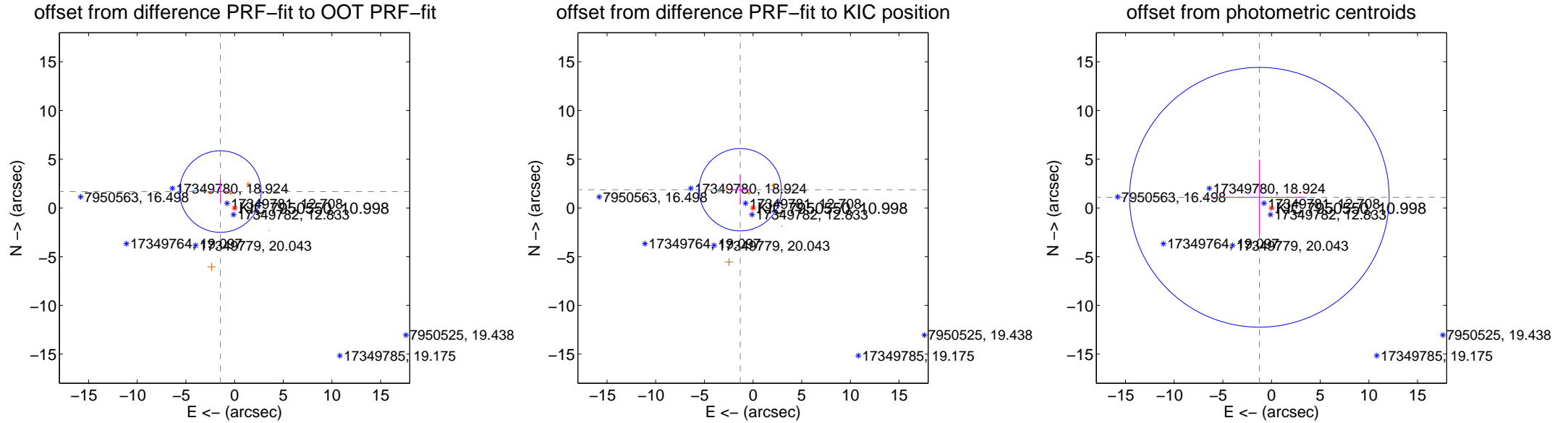
DV Centroid Data

Supplemental centroid analysis for 007950550-05. **Kepler magnitude: 11.00.** Transit SNR 7.72

There are 1 quarters with good PRF difference image offsets

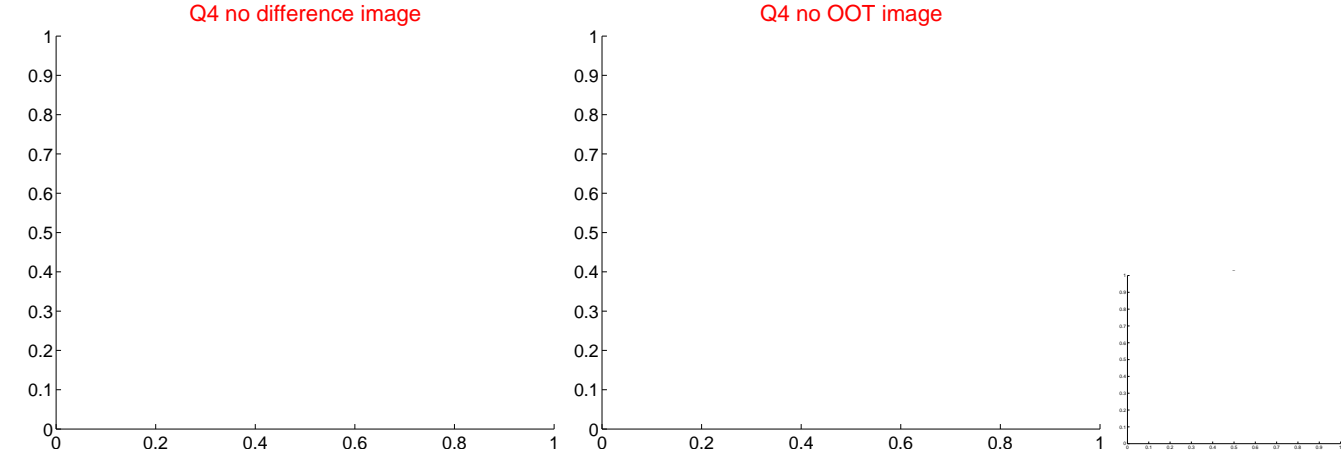
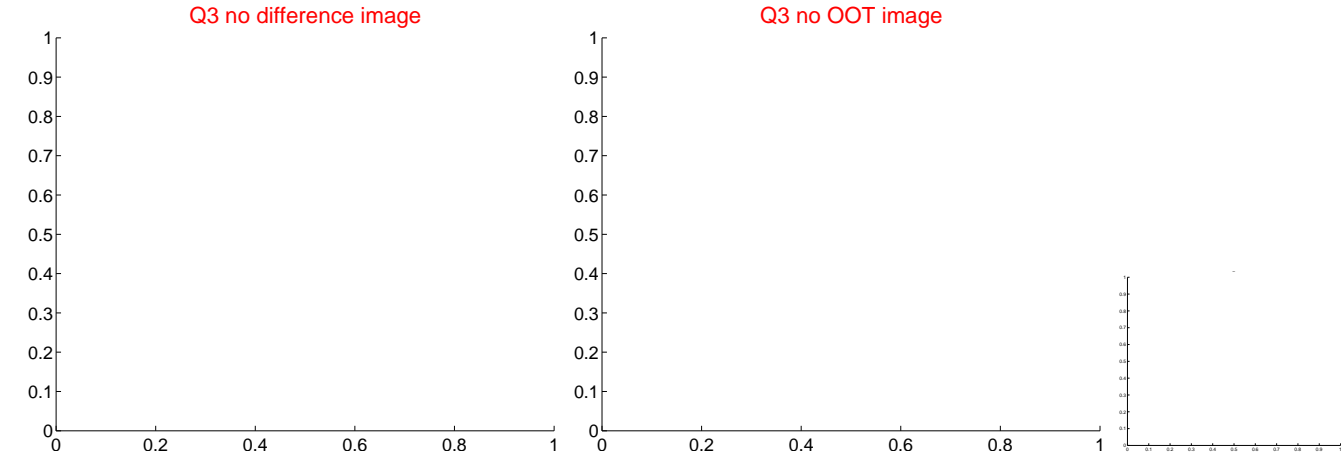
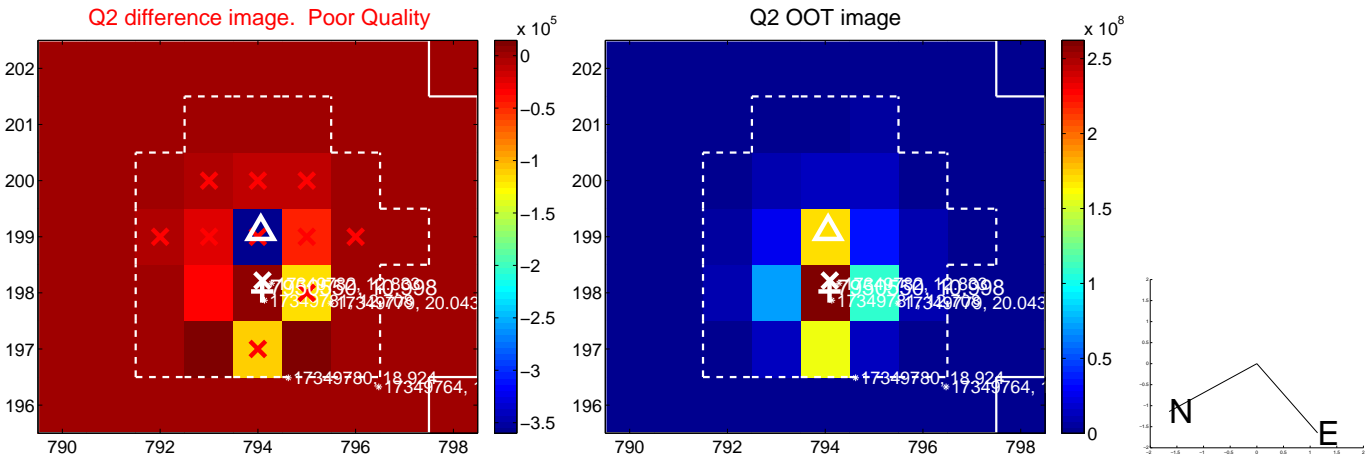
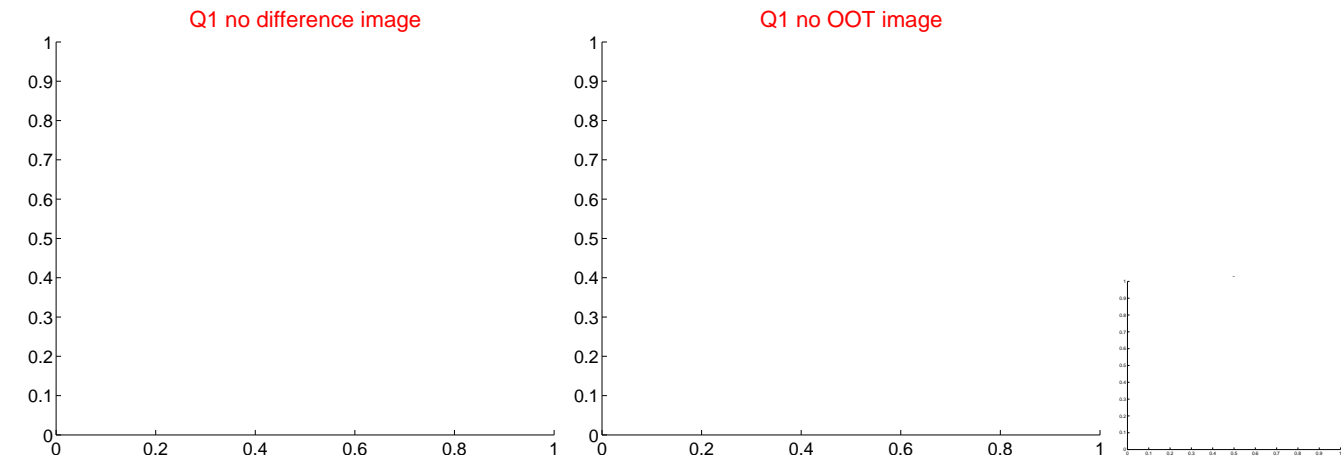
The direct PRF centroid is offset from the target star catalog position by about 0.67 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.230 ± 1.395	1.60	1.462 ± 1.245	1.683 ± 1.185
PRF-fit source offset from KIC position	2.288 ± 1.408	1.62	1.317 ± 1.067	1.871 ± 1.513
photometric centroid source offset	1.66 ± 4.44	0.37	1.25 ± 4.84	1.09 ± 3.87

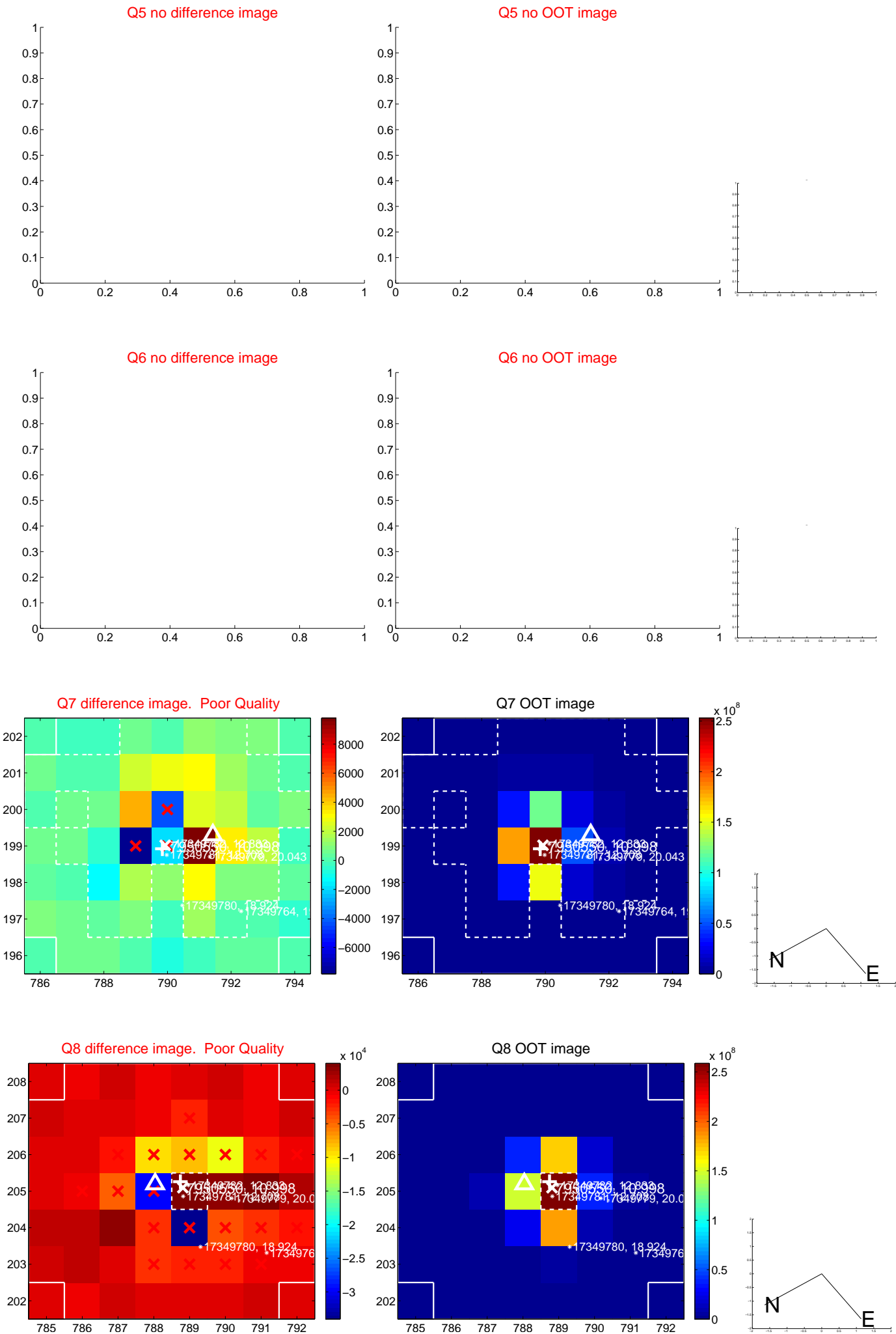


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

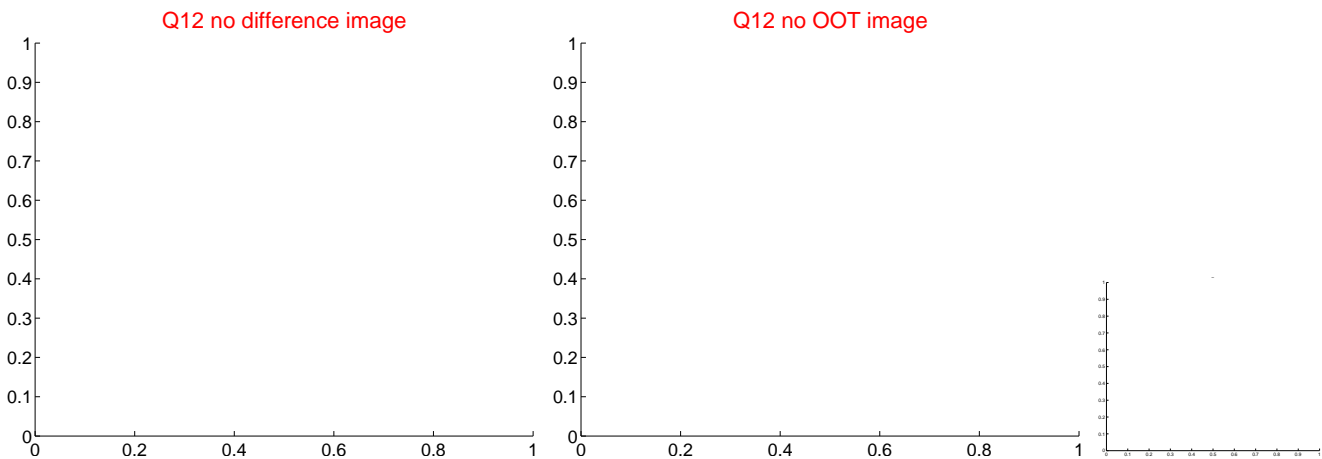
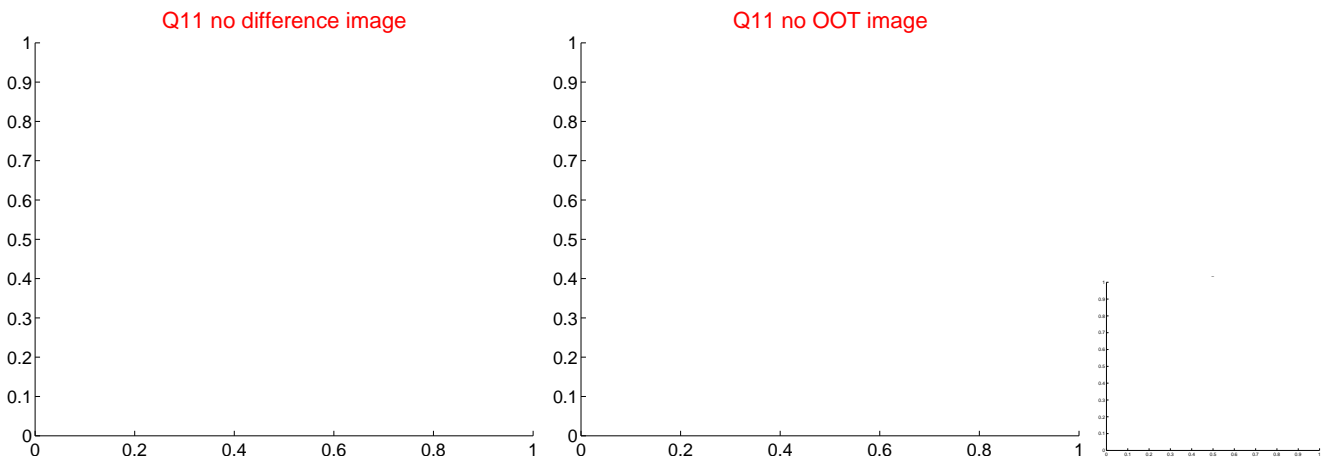
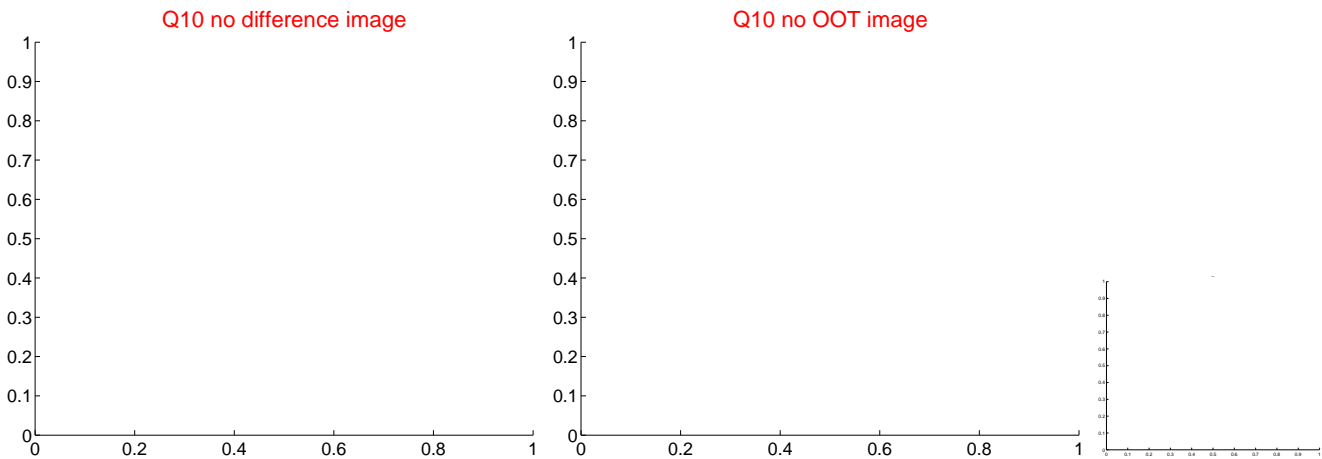
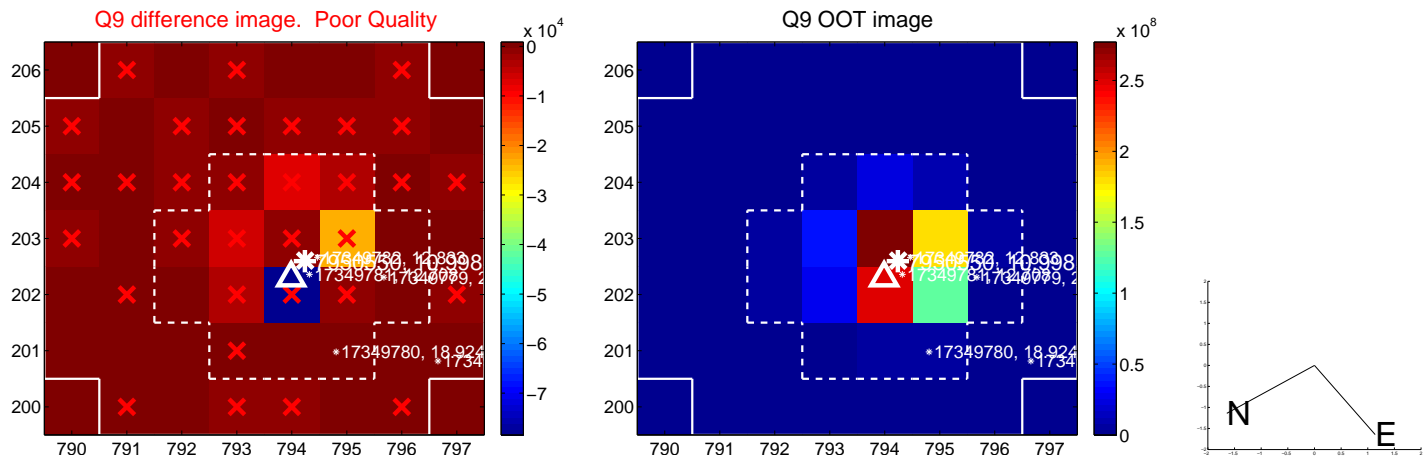
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



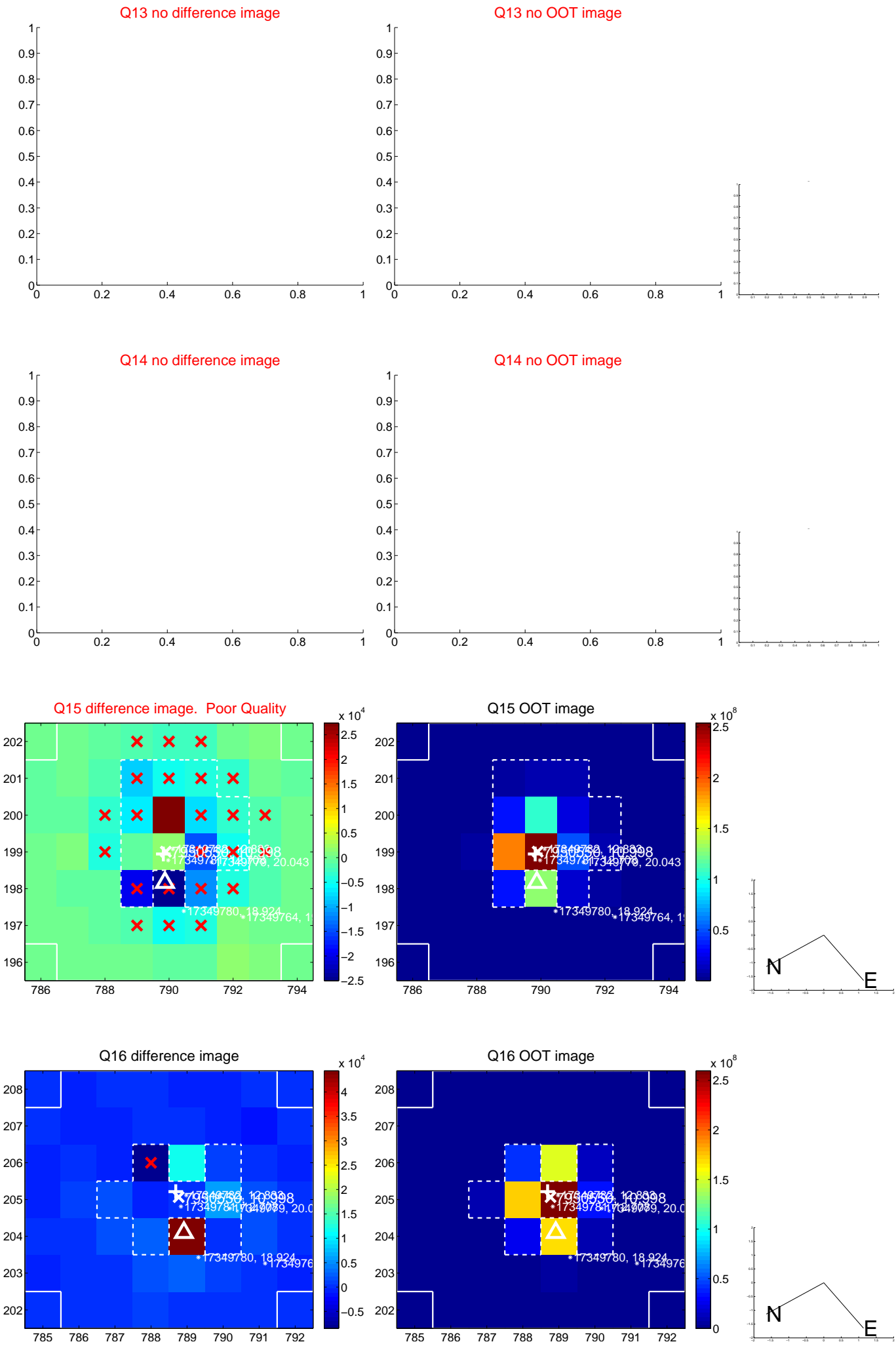
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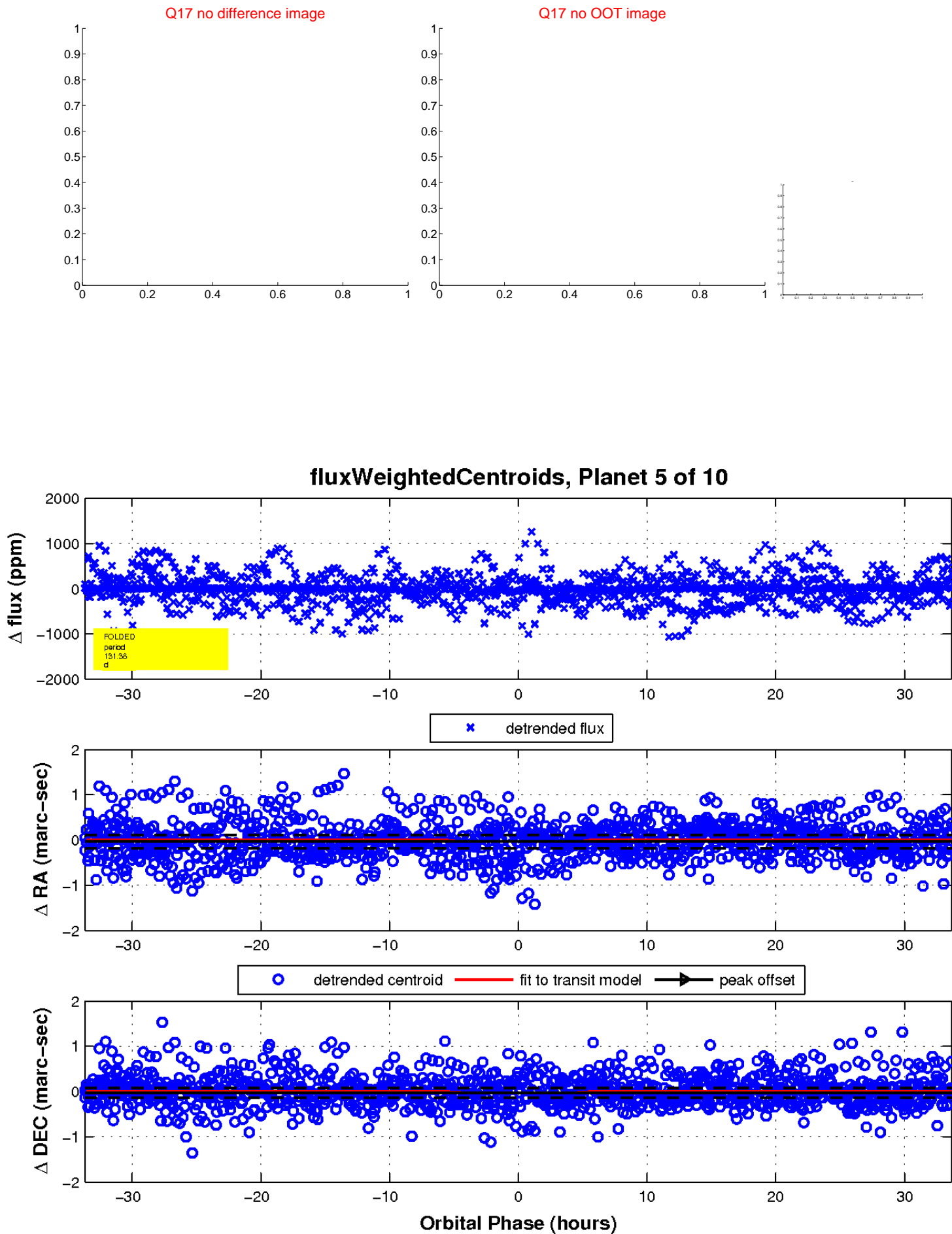
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



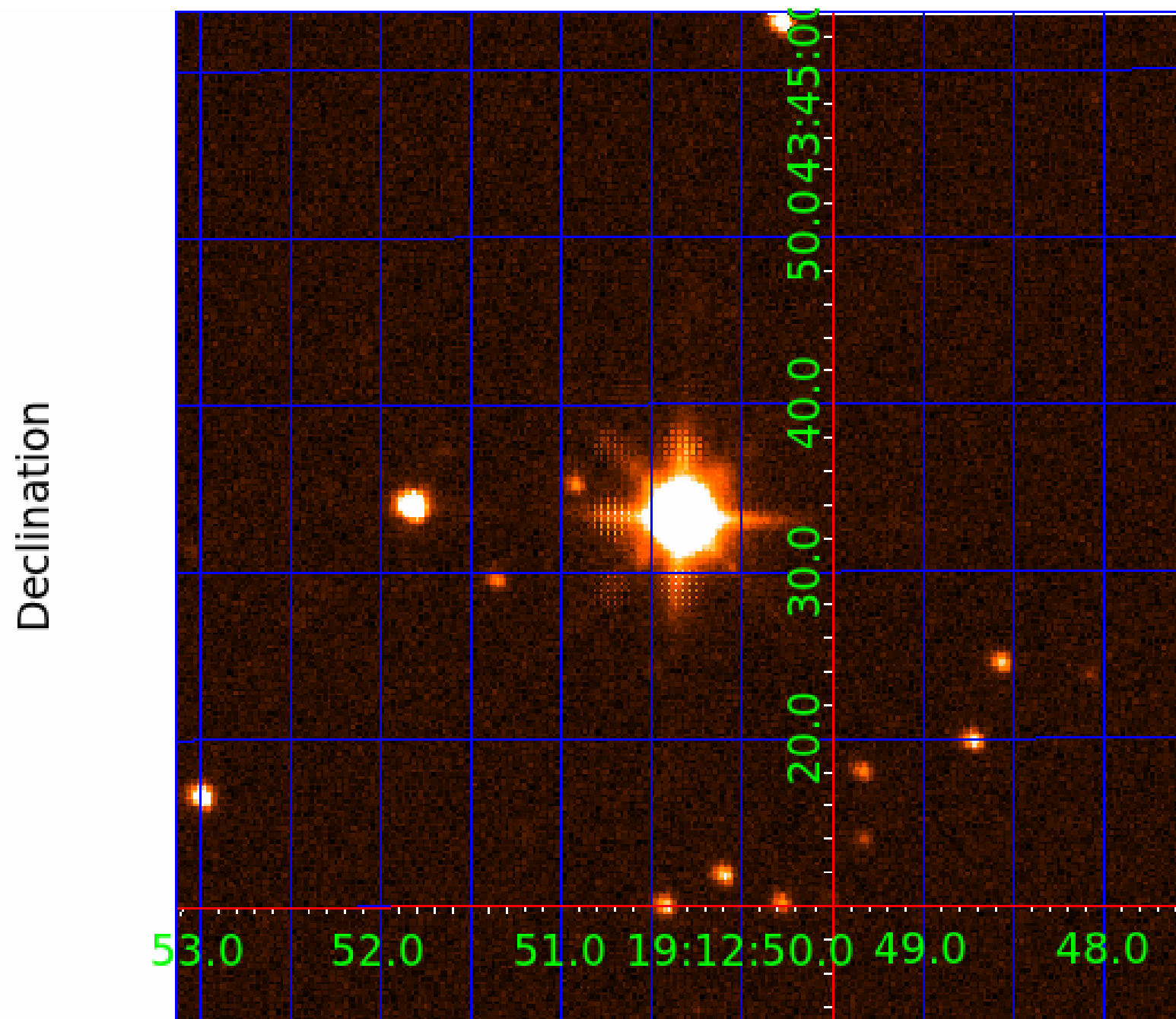
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 007950550

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})
007950550-01	OBS	No	78.754453	187.099506	53.7	1.615	31.6	16.3	10.66	4929	9.55	290.62
007950550-02	OBS	No	55.808550	138.872074	58.3	3.245	15.3	17.3	10.66	4929	9.37	459.99
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007950550-04	OBS	No	44.561631	161.040643	52.2	1.207	15.2	18.4	10.66	4929	9.53	620.97
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007950550-06	OBS	No	82.129715	143.985409	37.5	16.367	15.4	8.8	10.66	4929	7.65	274.80
007950550-07	OBS	No	51.755812	179.880861	10.9	1.900	14.1	3.5	10.66	4929	3.63	508.64
007950550-08	OBS	No	149.936248	138.841227	69.5	7.544	22.6	16.5	10.66	4929	10.82	123.16
007950550-09	OBS	No	37.154510	135.118424	21.9	8.813	14.3	8.8	10.66	4929	5.95	791.29
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007950550-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-02	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED— HALO_GHOST
007950550-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS— CENT_SATURATED
007950550-06	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT— CENT_SATURATED—HALO_GHOST
007950550-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_SATURATED
007950550-09	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED— HALO_GHOST
007950550-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT— MOD_POS_ALT—CENT_SATURATED

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

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

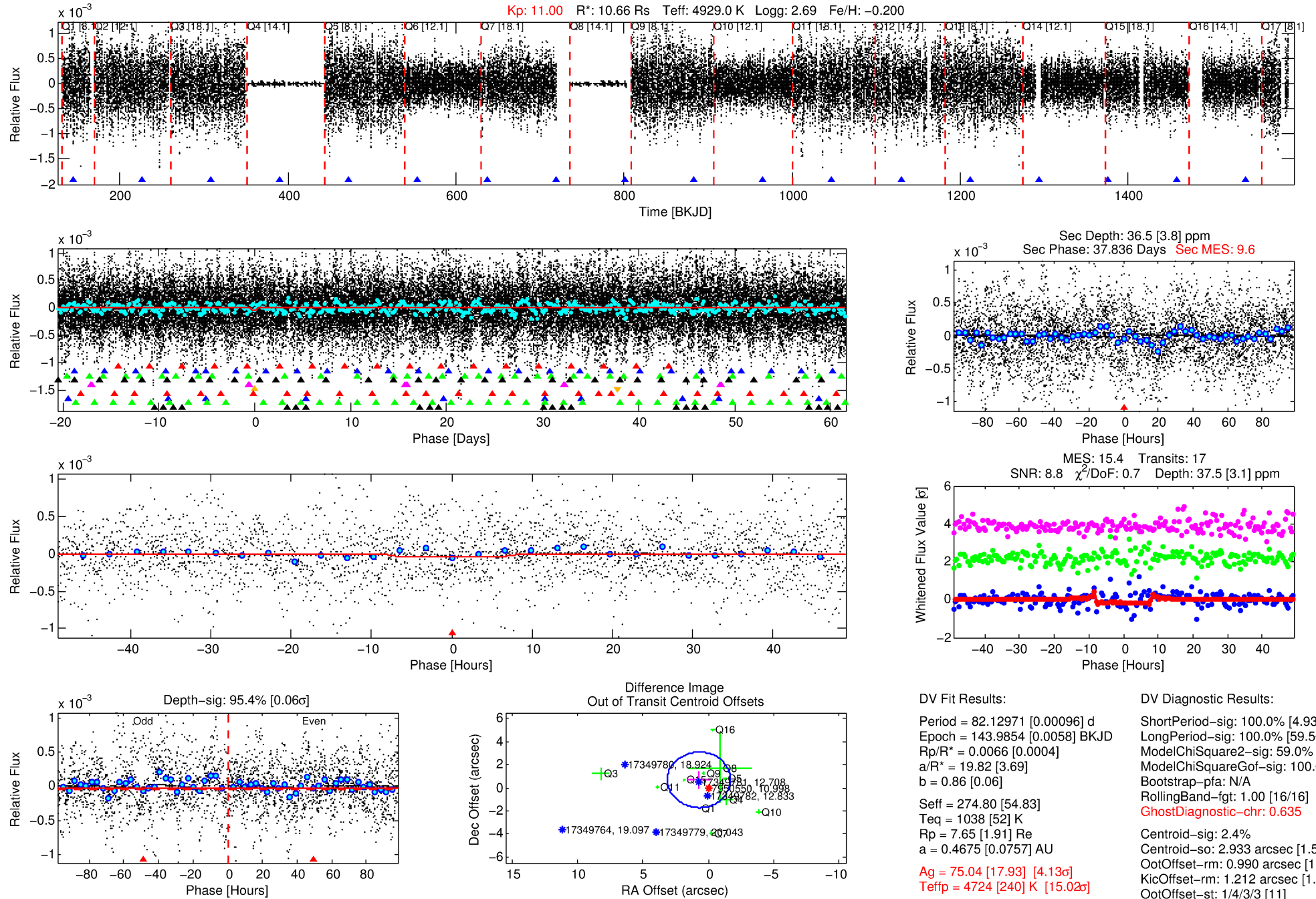
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007950550-06

No Significant Match Found

DV One-Page Summary

KIC: 7950550 Candidate: 6 of 10 Period: 82.130 d



DV Fit Results:

Period = 82.12971 [0.00096] d
 Epoch = 143.9854 [0.0058] BKJD
 Rp/R* = 0.0066 [0.0004]
 a/R* = 19.82 [3.69]
 b = 0.86 [0.06]
 Seff = 274.80 [54.83]
 Teq = 1038 [52] K
 Rp = 7.65 [1.91] Re
 a = 0.4675 [0.0757] AU
 Ag = 75.04 [17.93] [4.13 σ]
 Teffp = 4724 [240] K [15.02 σ]

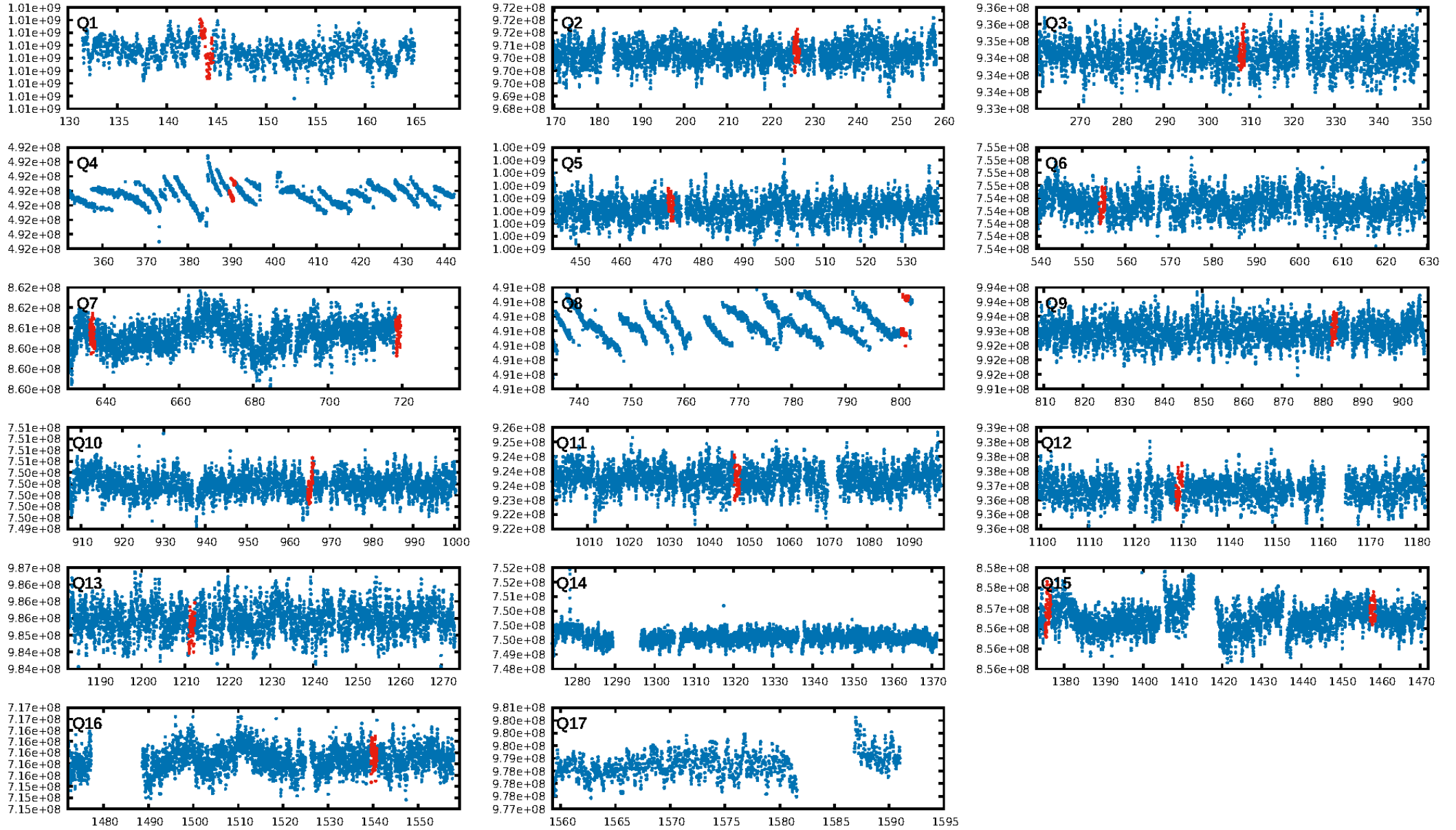
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [4.93 σ]
 LongPeriod-sig: 100.0% [59.56 σ]
 ModelChiSquare2-sig: 59.0%
 ModelChiSquareGof-sig: 100.0%
 Bootstrap-pfa: N/A
 RollingBand-fgt: 1.00 [16/16]
 GhostDiagnostic-chr: 0.635
 Centroid-sig: 2.4%
 Centroid-so: 2.933 arcsec [1.52 σ]
 OotOffset-rm: 0.990 arcsec [1.23 σ]
 KicOffset-rm: 1.212 arcsec [1.44 σ]
 OotOffset-st: 1/4/3/3 [11]
 KicOffset-st: 1/4/3/3 [11]
 DiffImageQuality-fgm: 0.18 [2/11]
 DiffImageOverlap-fno: 0.71 [10/14]

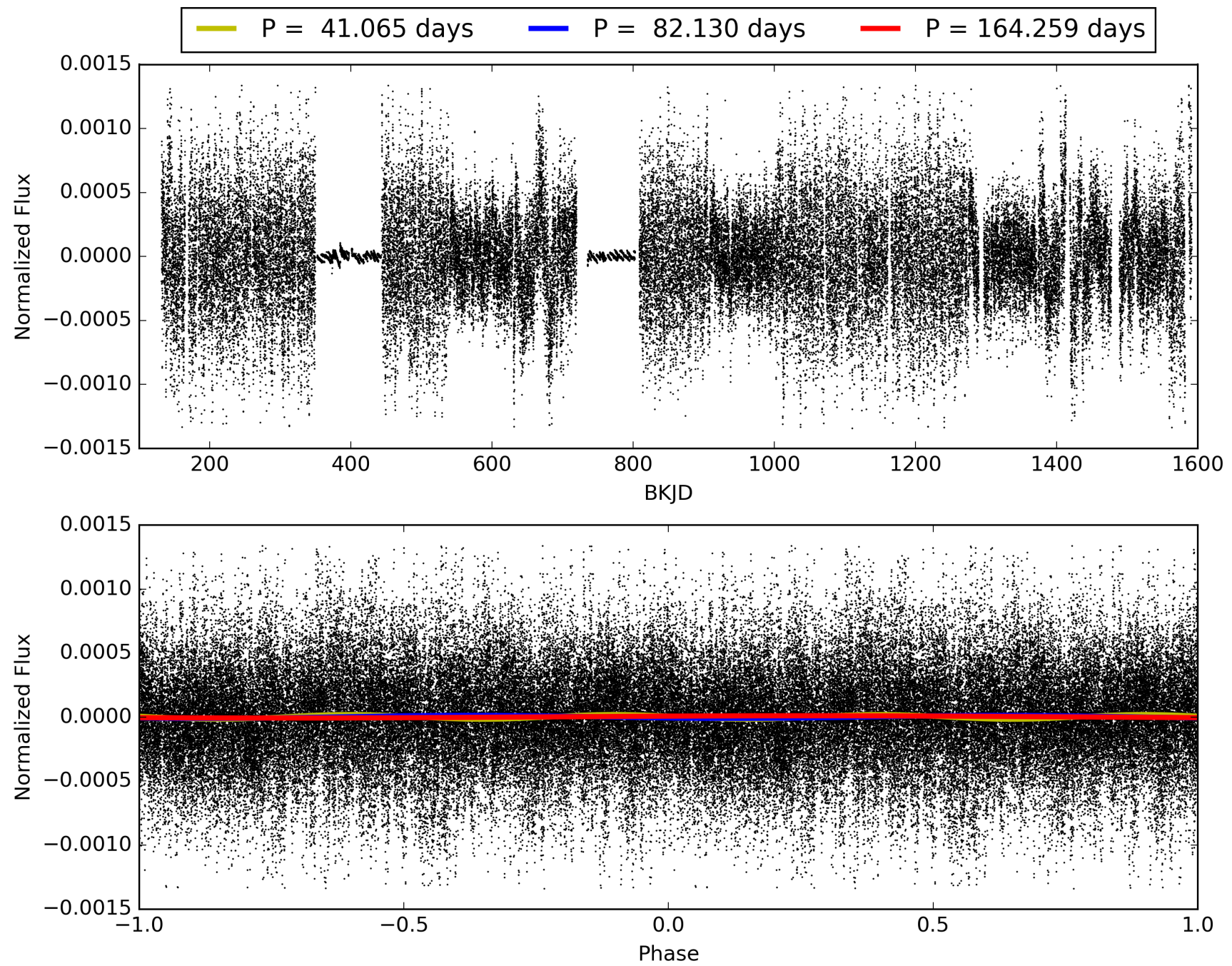
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:46:26 Z

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

TCE 007950550-06, PDC Light Curves

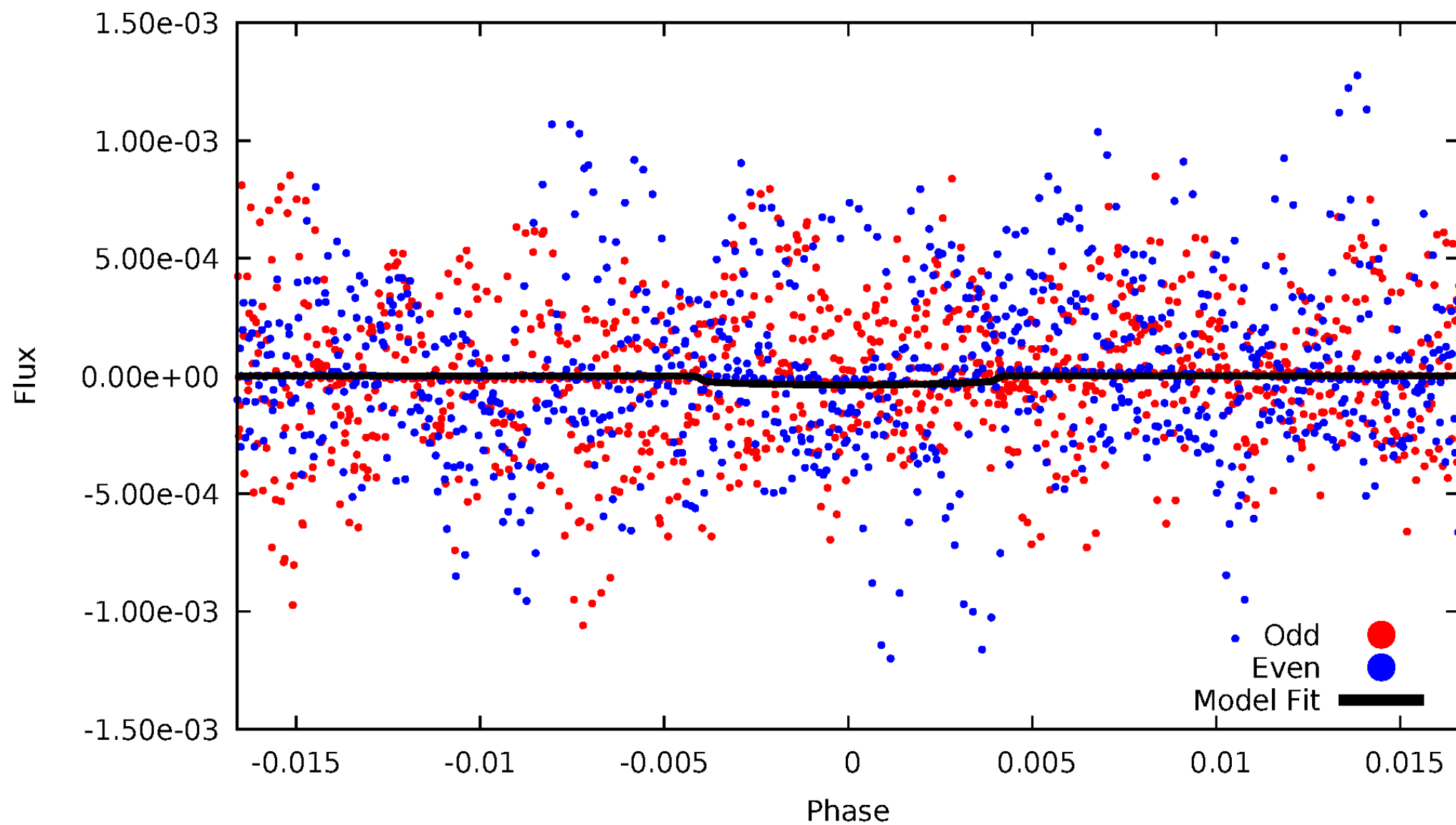


TCE 007950550-06



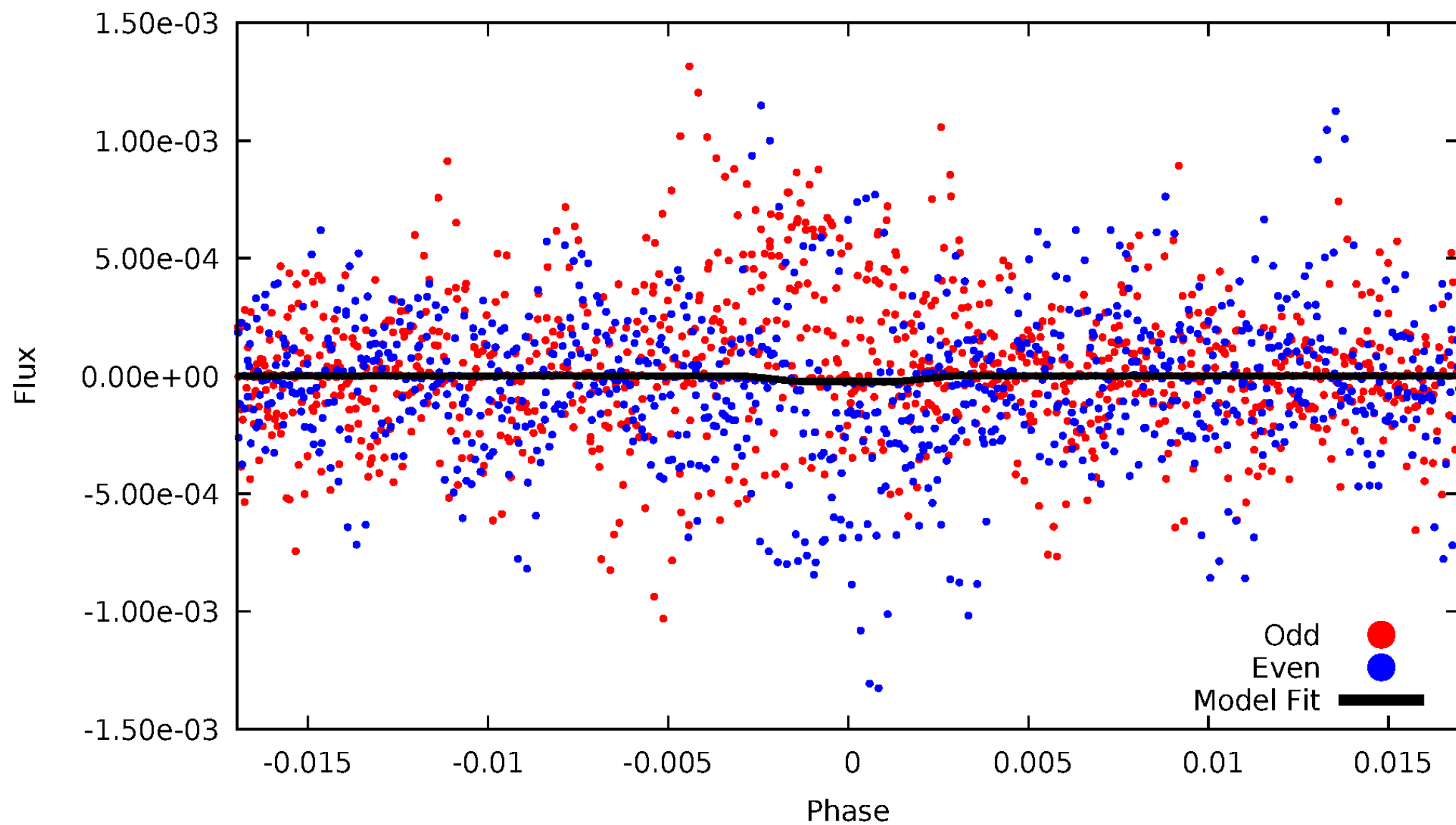
DV Odd/Even

TCE 007950550-06



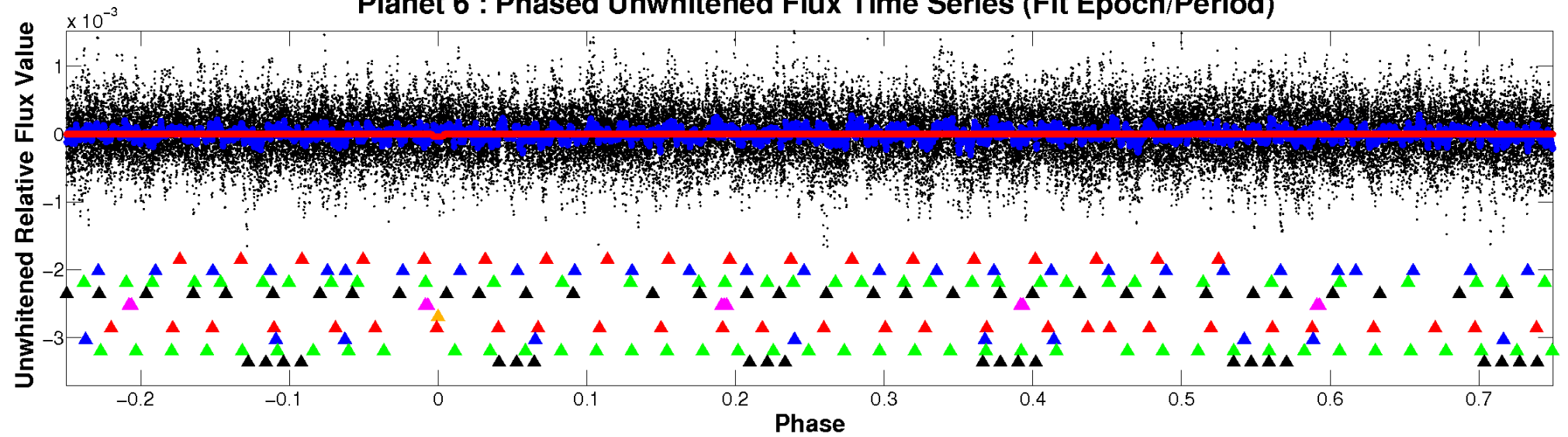
ALT Odd/Even

TCE 007950550-06

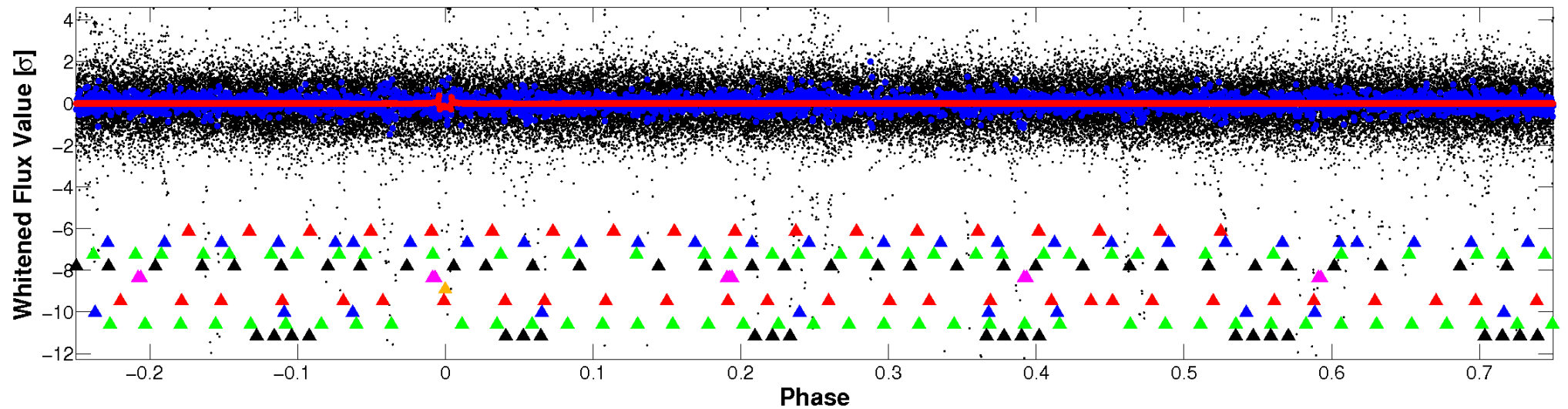


Non-Whitened Vs. Whitened Light Curve

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

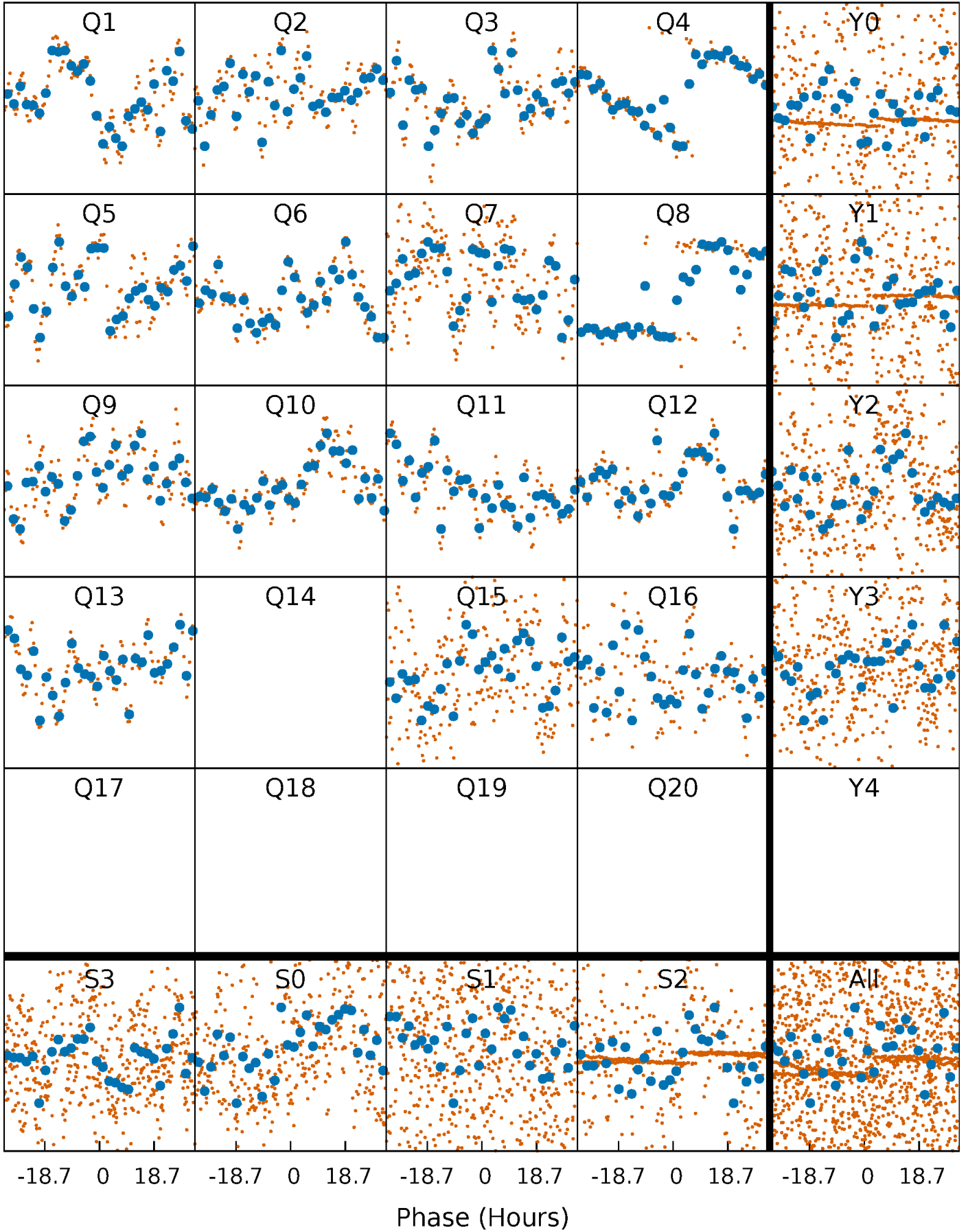


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



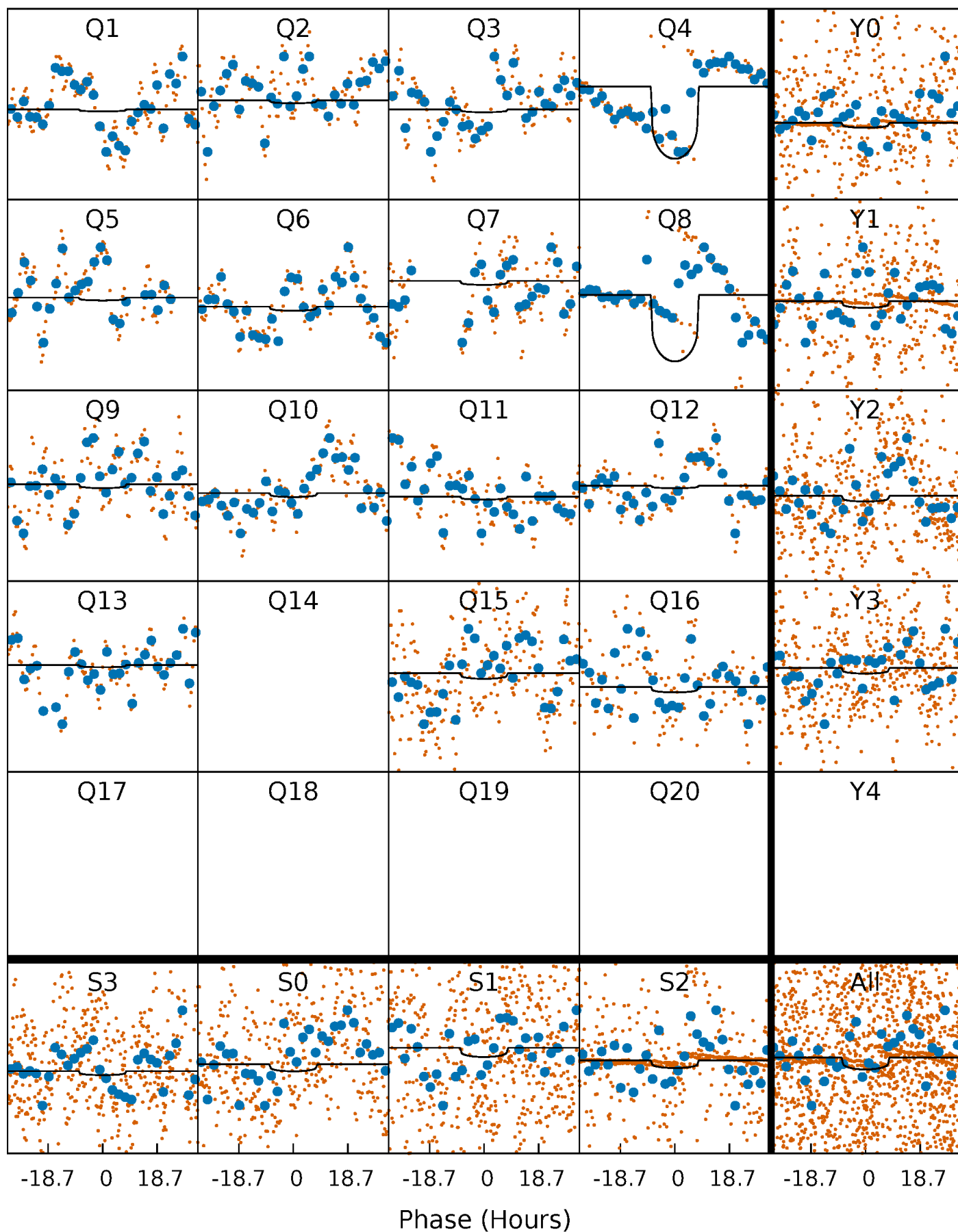
PDC Quarter-Phased Transit Curves

TCE 007950550-06 P= 82.129715 Days $T_0=143.985409$ (BKJD)



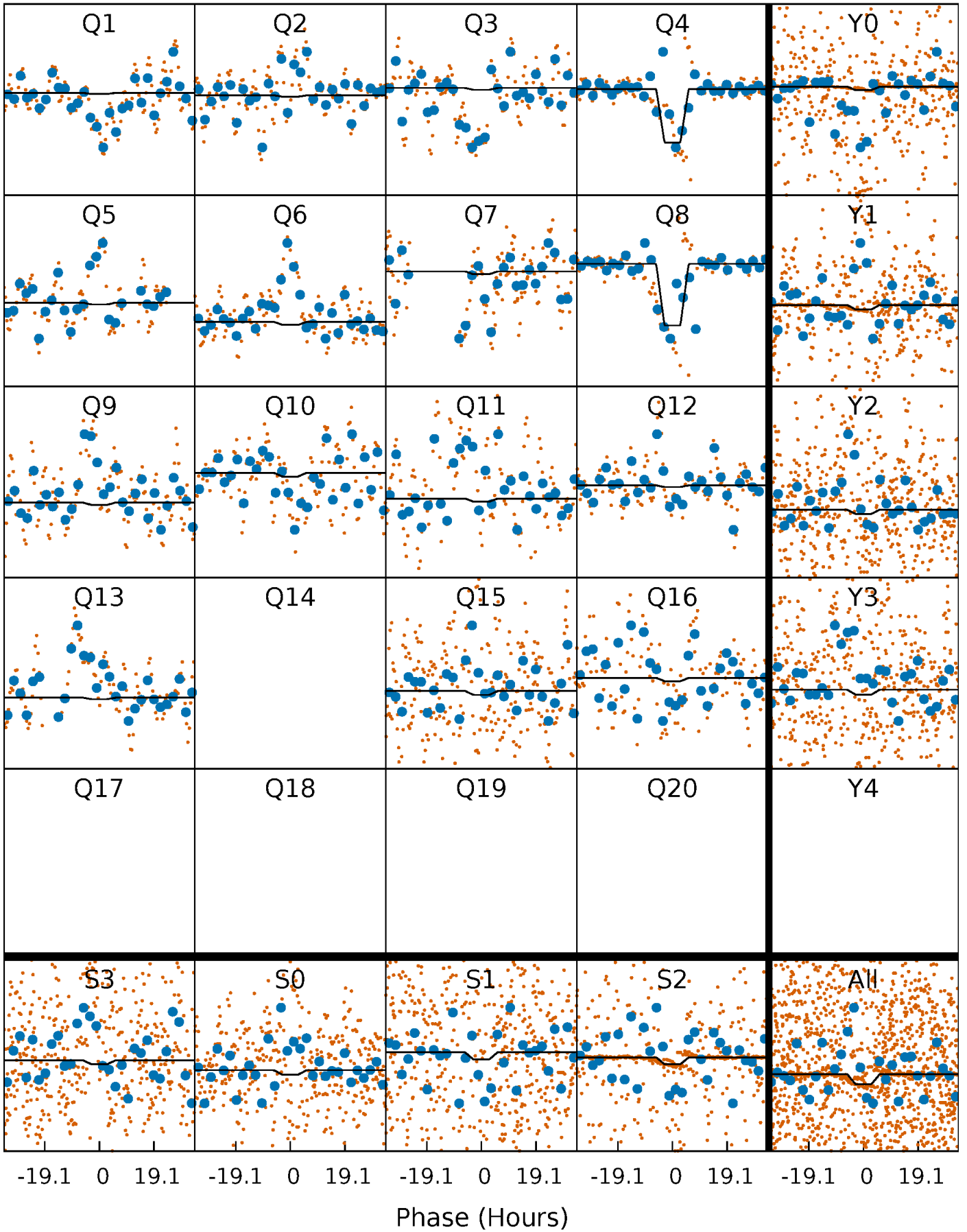
DV Quarter-Phased Transit Curves

TCE 007950550-06 P= 82.129715 Days $T_0=143.985409$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

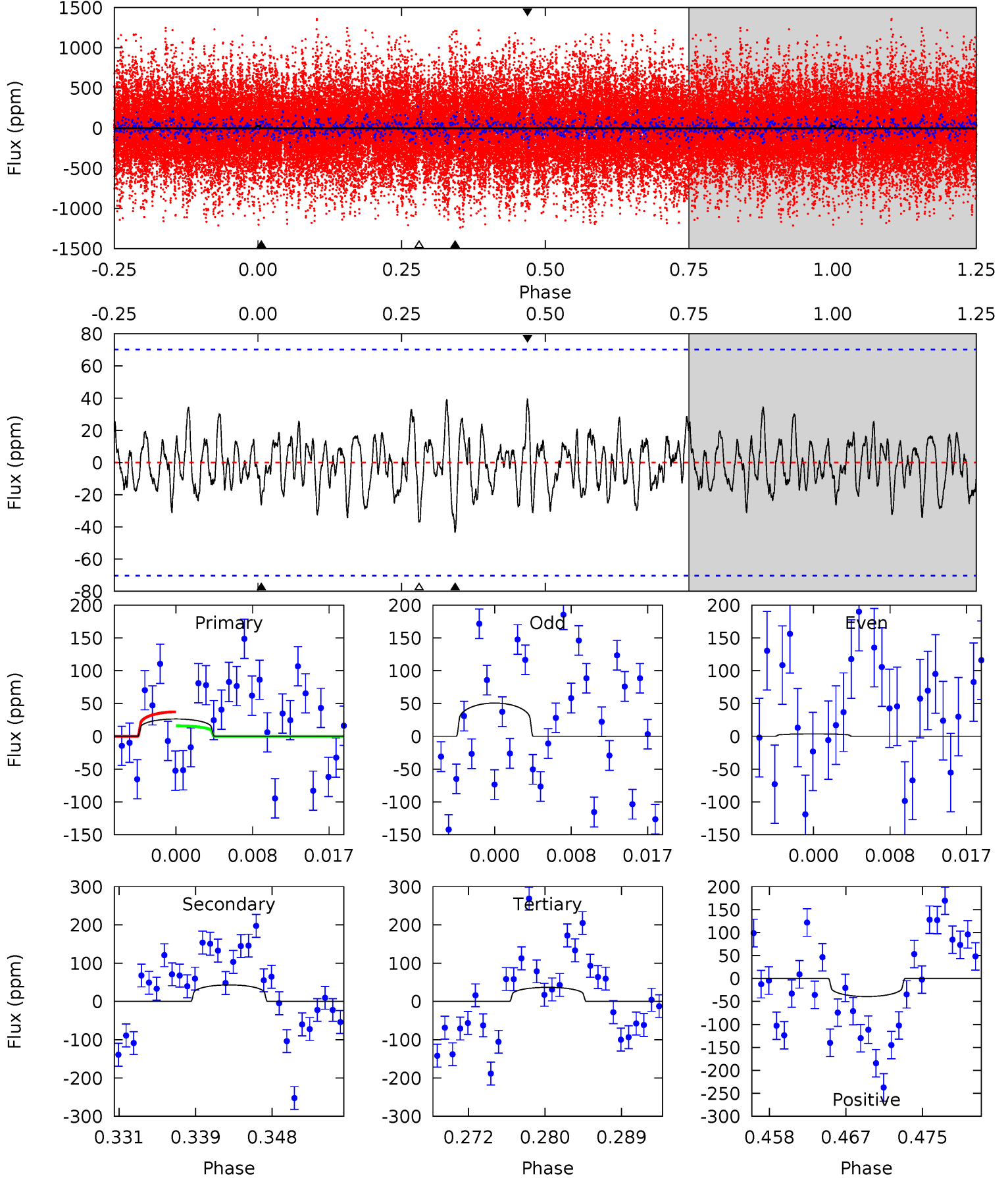
TCE 007950550-06 P= 82.124234 Days $T_0=144.010706$ (BKJD)



DV Model-Shift Uniqueness Test

007950550-06, P = 82.129715 Days, E = 61.855694 Days

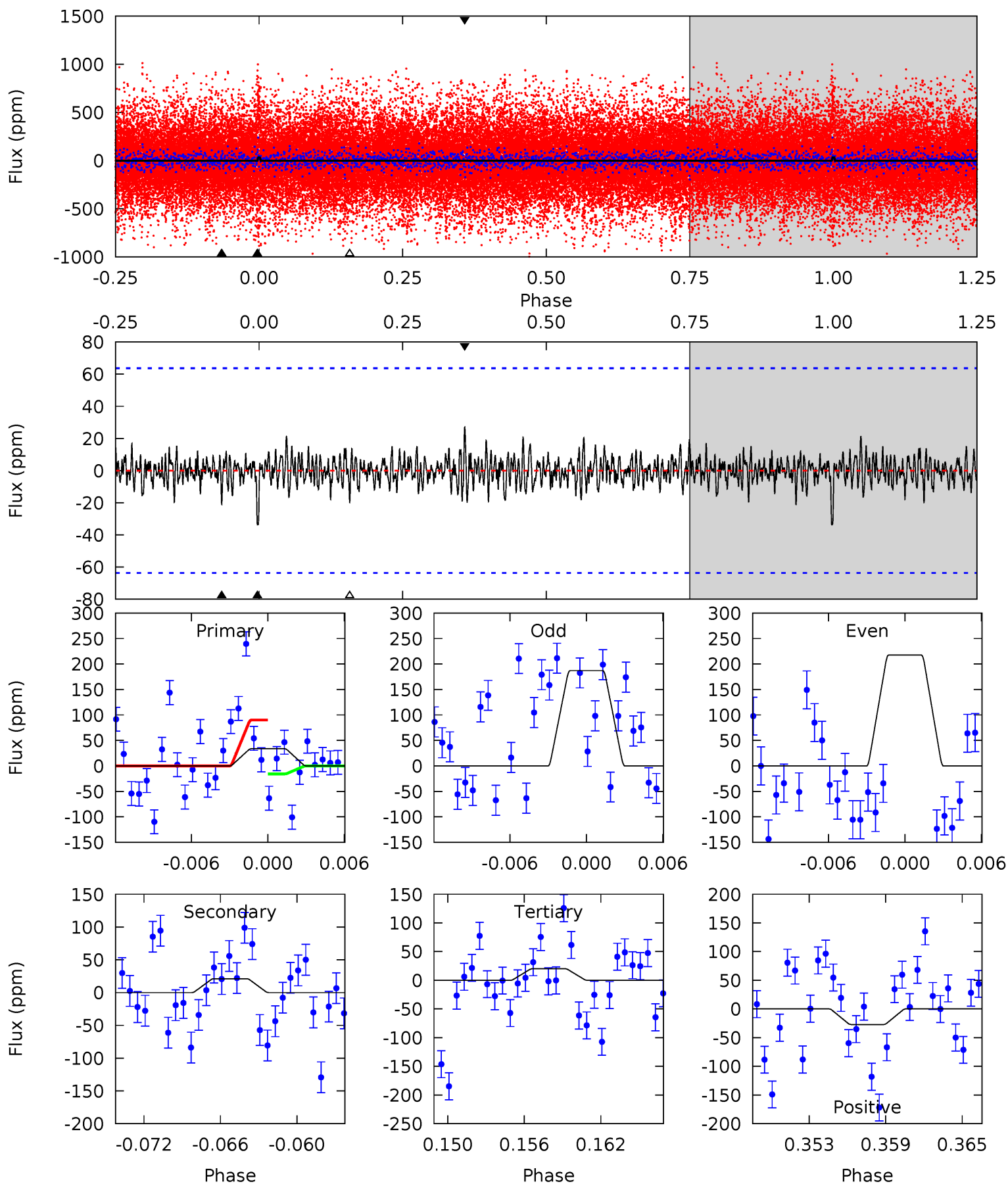
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.90	3.11	2.66	2.83	5.06	2.63	0.99	-0.76	-0.93	0.46	0.29	1.68	-0.69	0.48	0.76



Alt Model-Shift Uniqueness Test

007950550-06, P = 82.124234 Days, E = 61.886472 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.72	1.70	1.61	2.18	5.12	2.75	0.56	1.11	0.55	0.09	-0.47	1.23	2.33	0.44	2.99



Stellar Parameters For KIC 007950550

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4929^{+38}_{-135}	$2.688^{+0.030}_{-0.030}$	$-0.200^{+0.100}_{-0.150}$	$10.657^{+1.098}_{-2.562}$	$2.022^{+0.770}_{-0.847}$	$0.002^{+0.001}_{-0.000}$
	+1%/-3%	+1%/-1%	+50%/-75%	+10%/-24%	+38%/-42%	+34%/-9%
Source	PHO55	AST55	SPE55	DSEP		

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

Secondary Eclipse Parameters for KIC 007950550-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-43 ± 14	$7.84^{+0.86}_{-1.06}$	1447^{+35}_{-52}	4877^{+364}_{-392}	88^{+35}_{-29}
Alt.	-21 ± 12	$5.70^{+0.80}_{-0.88}$	1448^{+31}_{-48}	4775^{+557}_{-741}	80^{+51}_{-48}

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 $A_{obs} \gg 1.0$

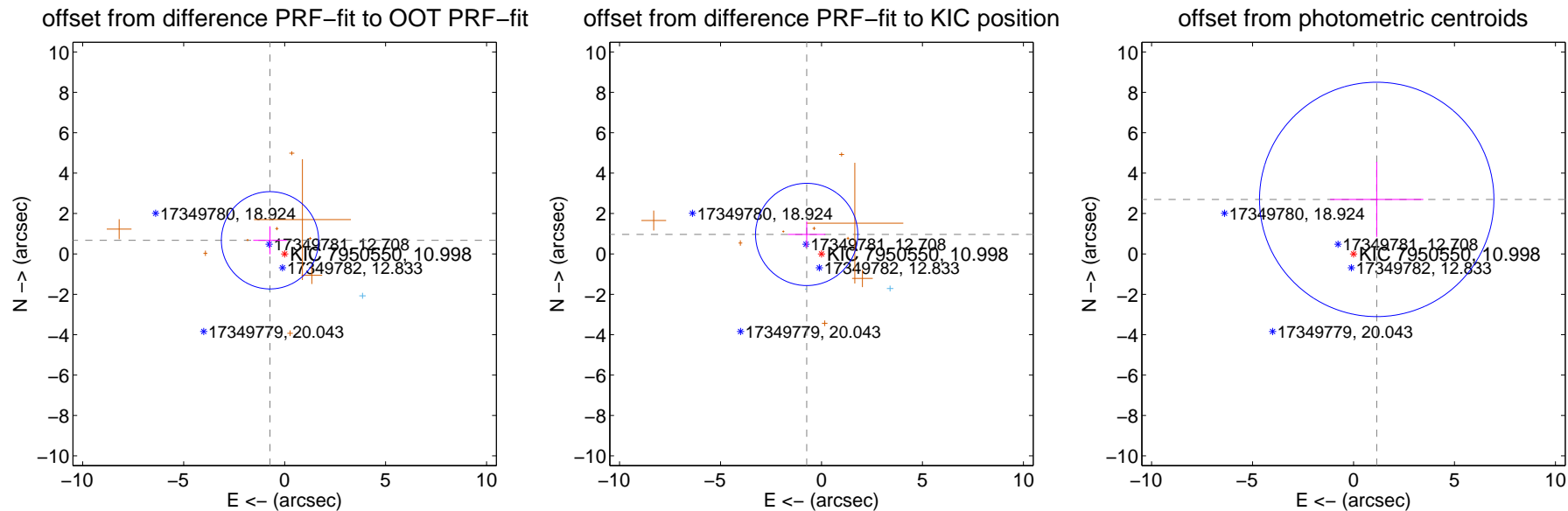
DV Centroid Data

Supplemental centroid analysis for 007950550-06. **Kepler magnitude: 11.00.** Transit SNR 8.82

There are 2 quarters with good PRF difference image offsets

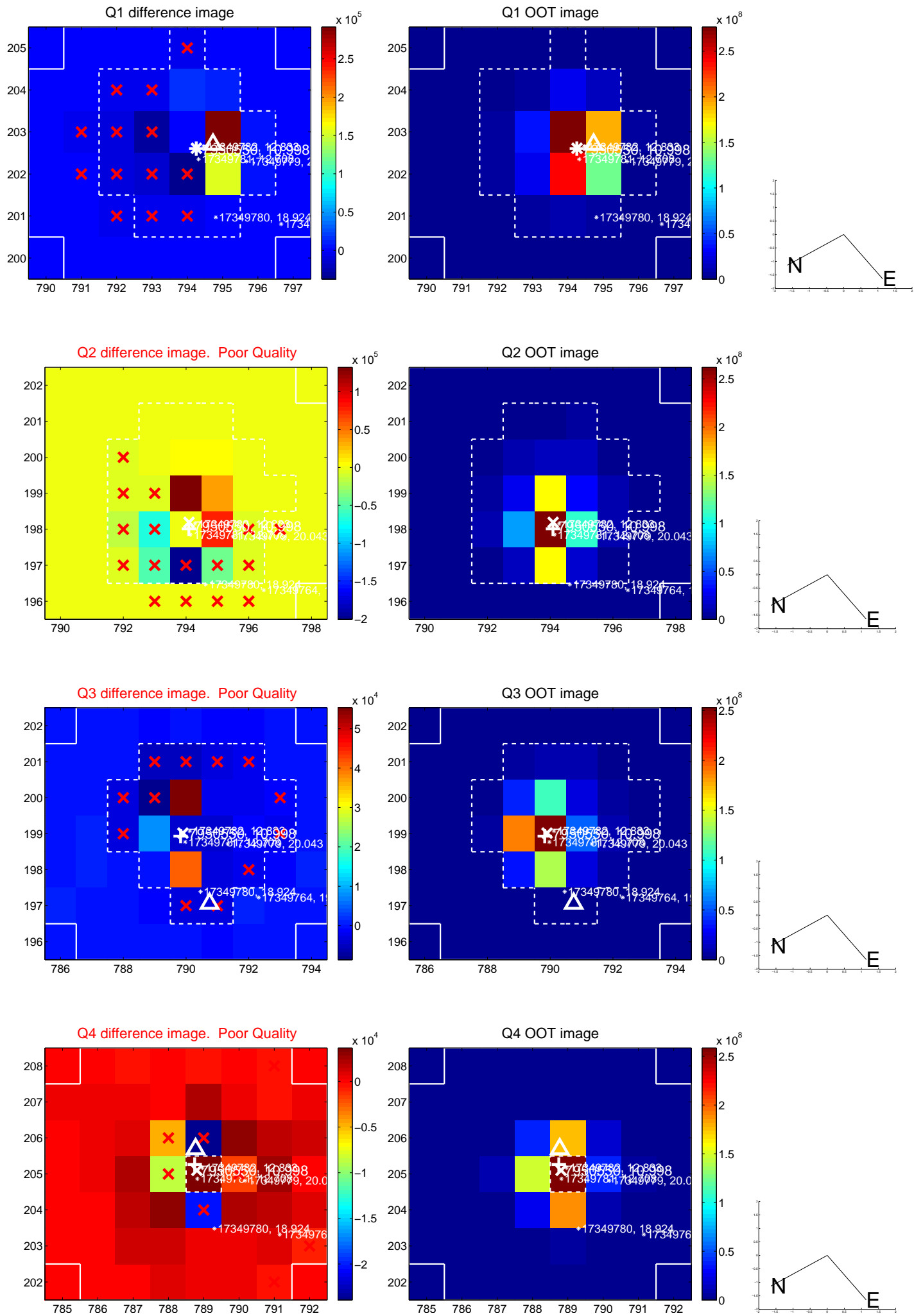
The direct PRF centroid is offset from the target star catalog position by about 0.64 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.990 ± 0.803	1.23	0.725 ± 0.830	0.674 ± 0.693
PRF-fit source offset from KIC position	1.212 ± 0.844	1.44	0.734 ± 0.927	0.964 ± 0.647
photometric centroid source offset	2.93 ± 1.93	1.52	-1.15 ± 2.31	2.70 ± 1.86

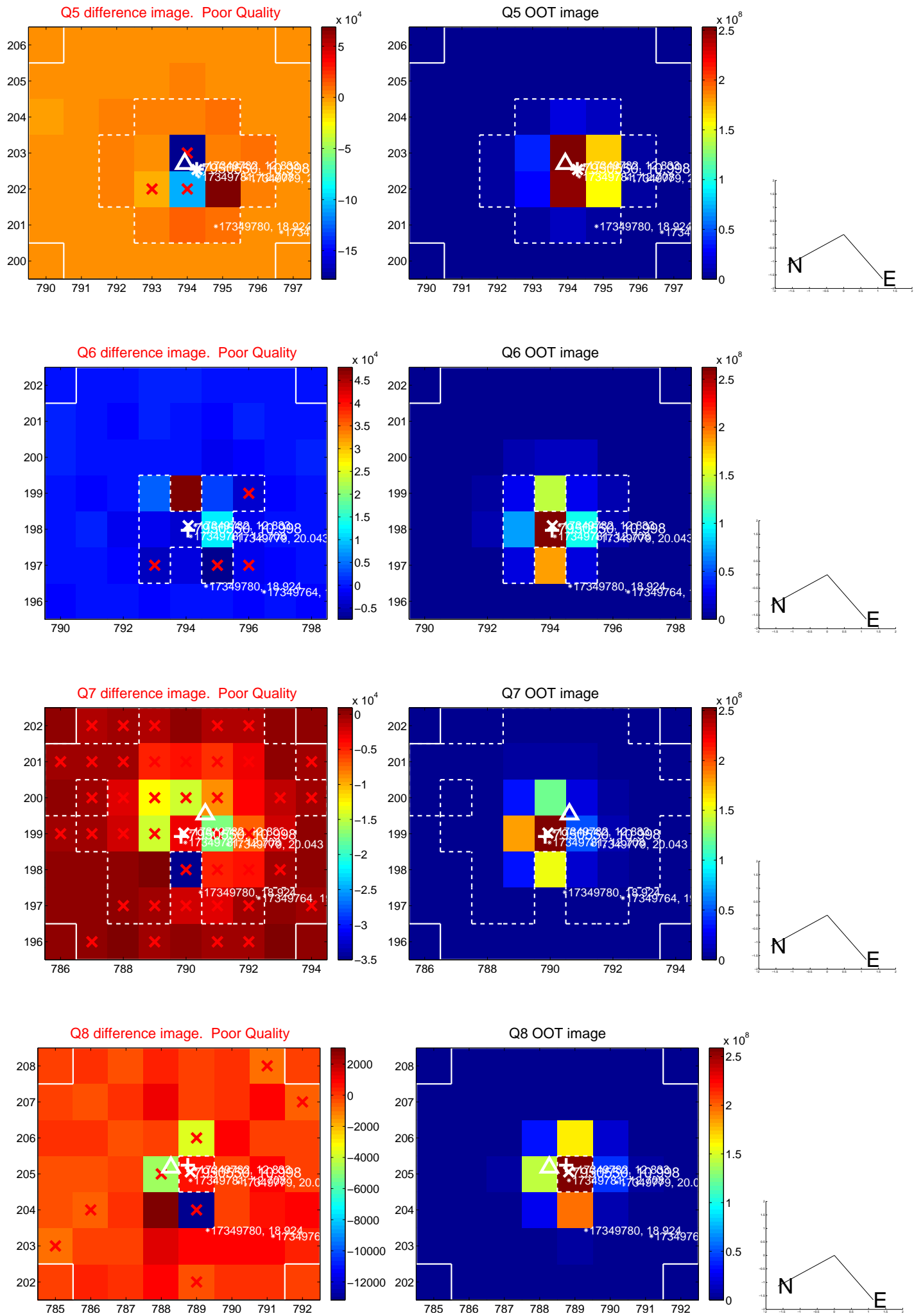


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

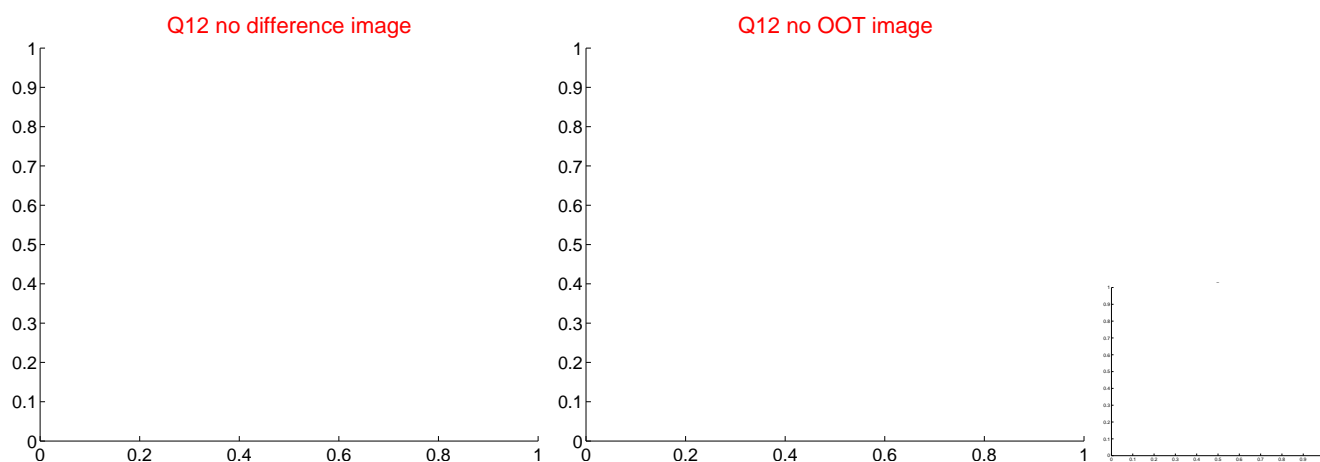
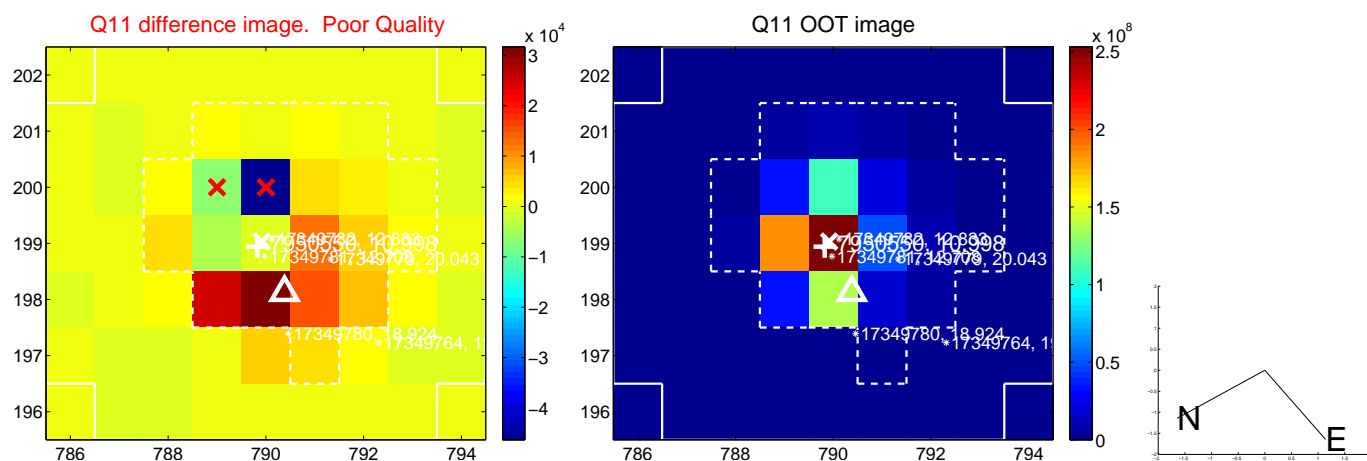
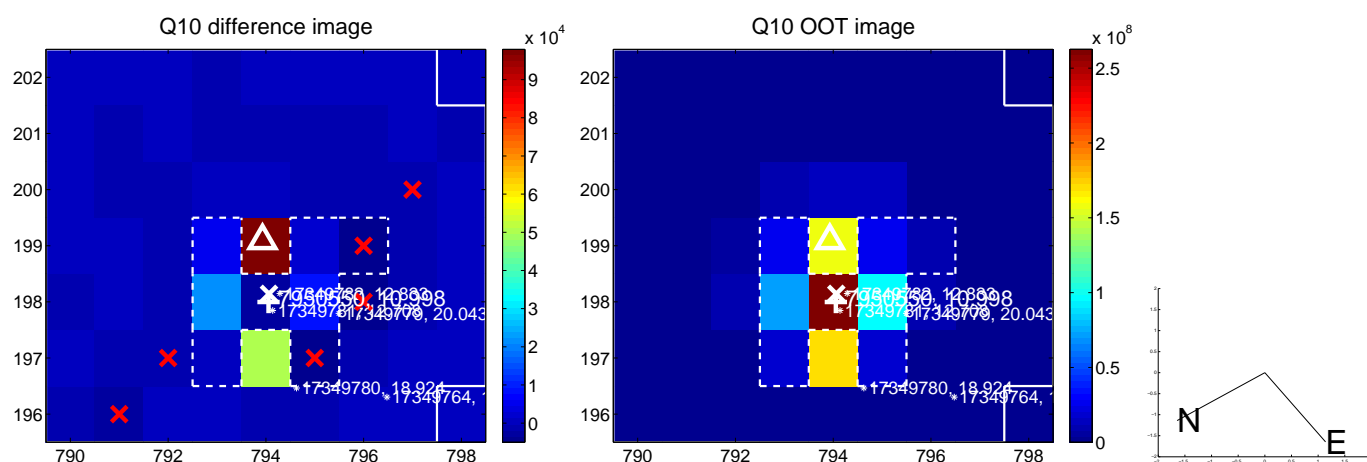
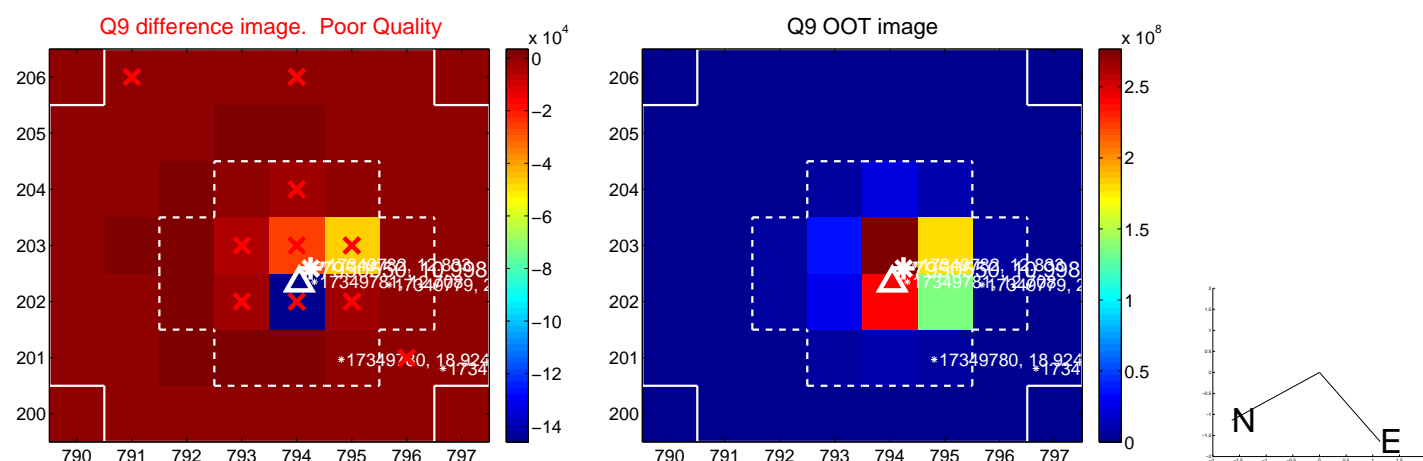
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



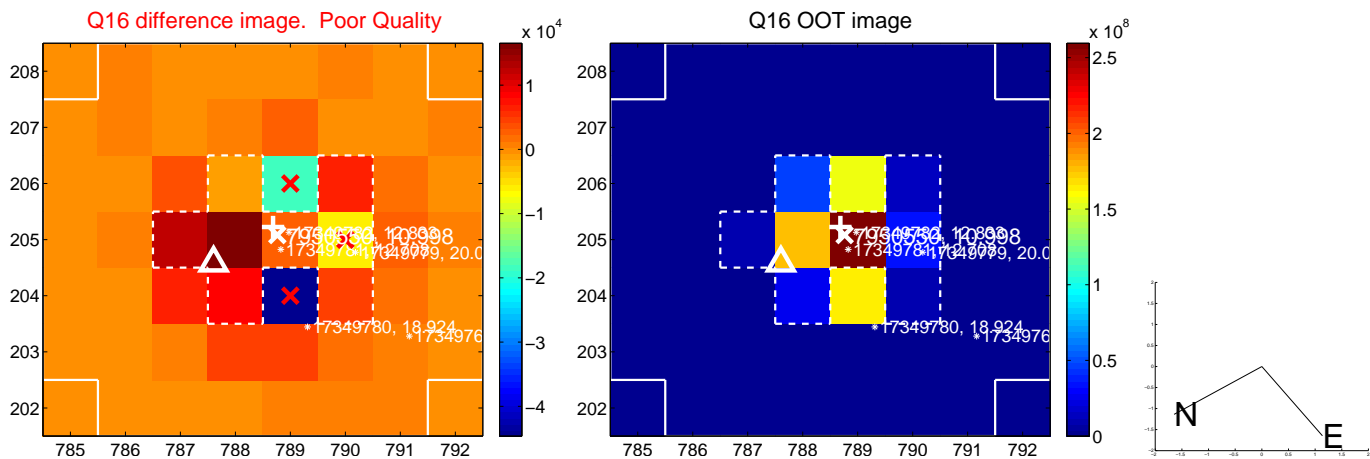
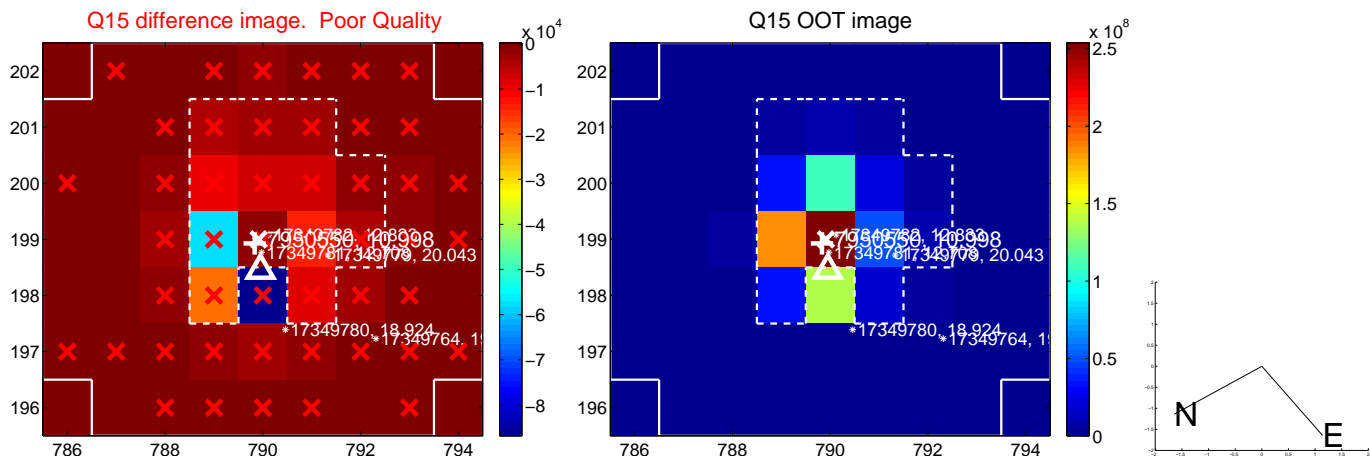
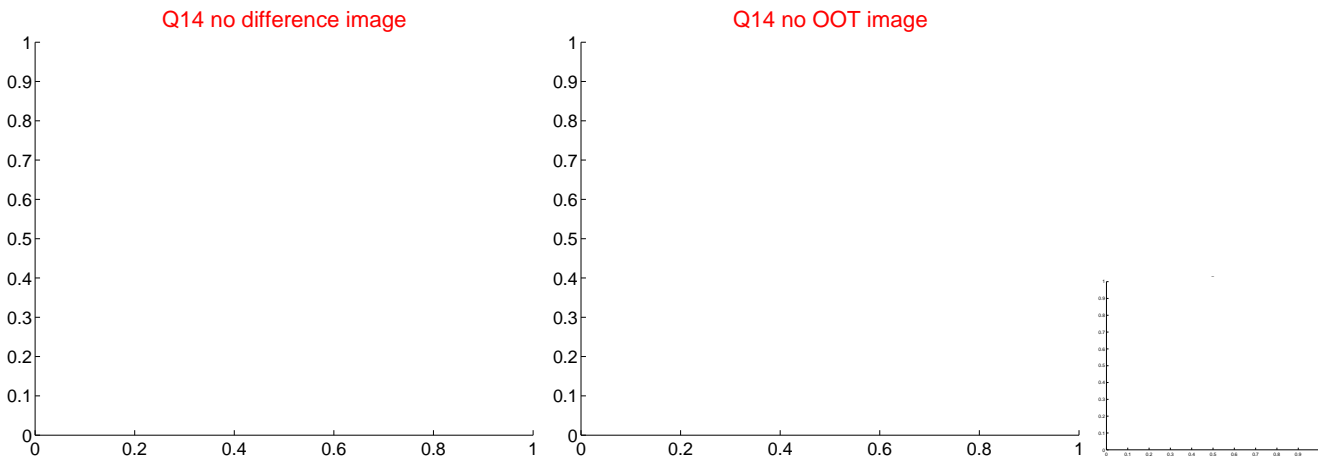
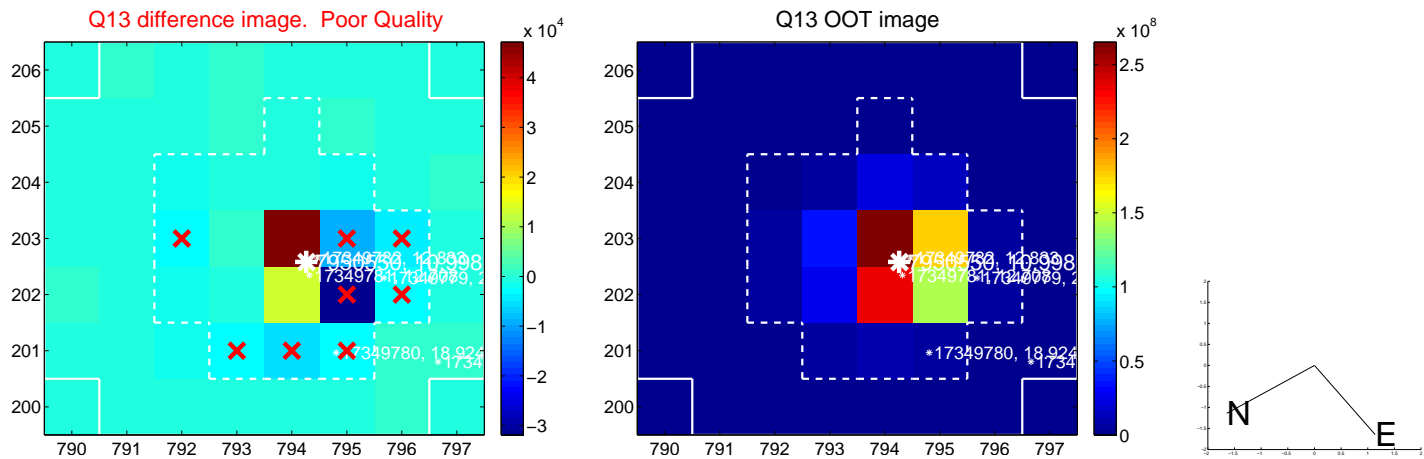
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



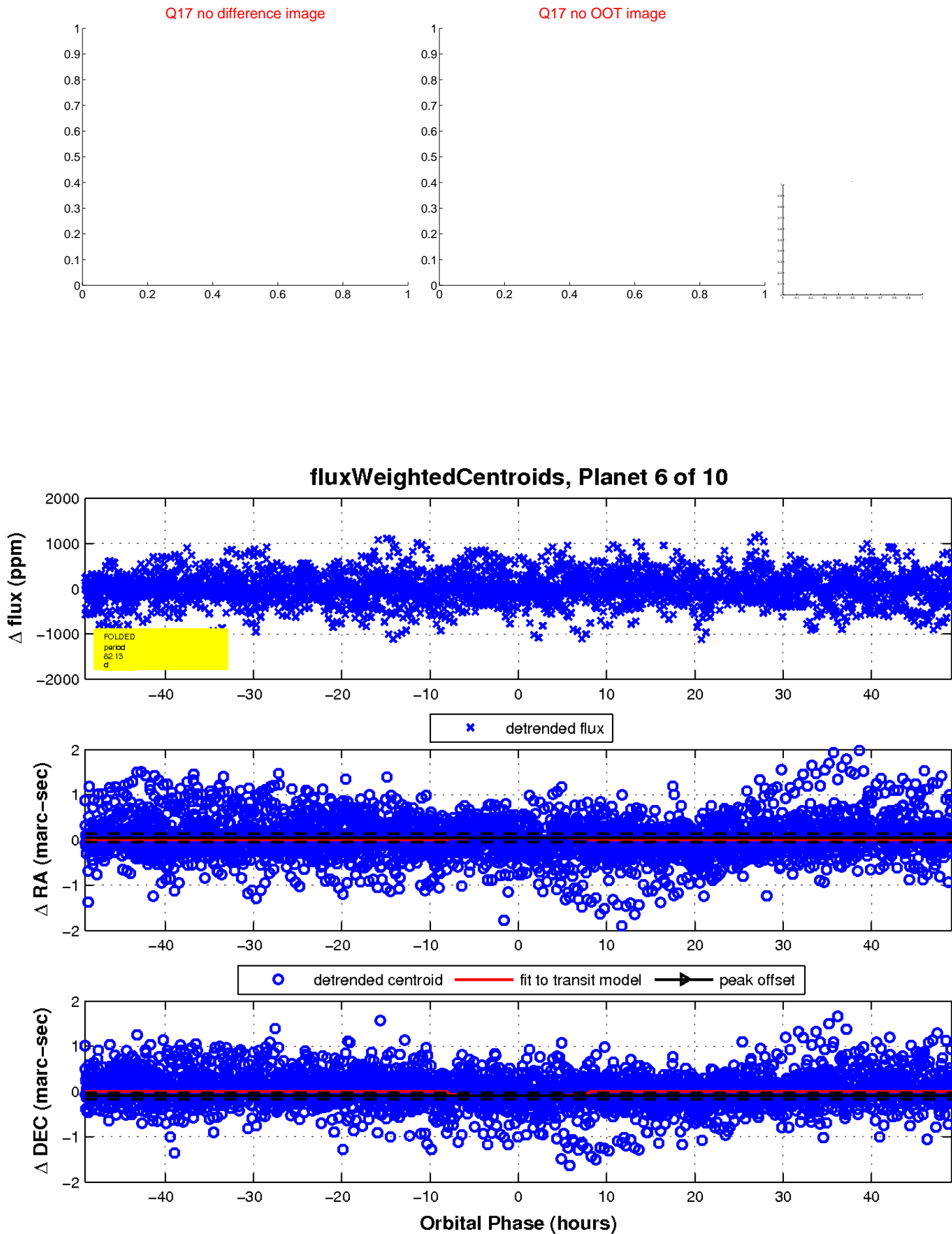
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



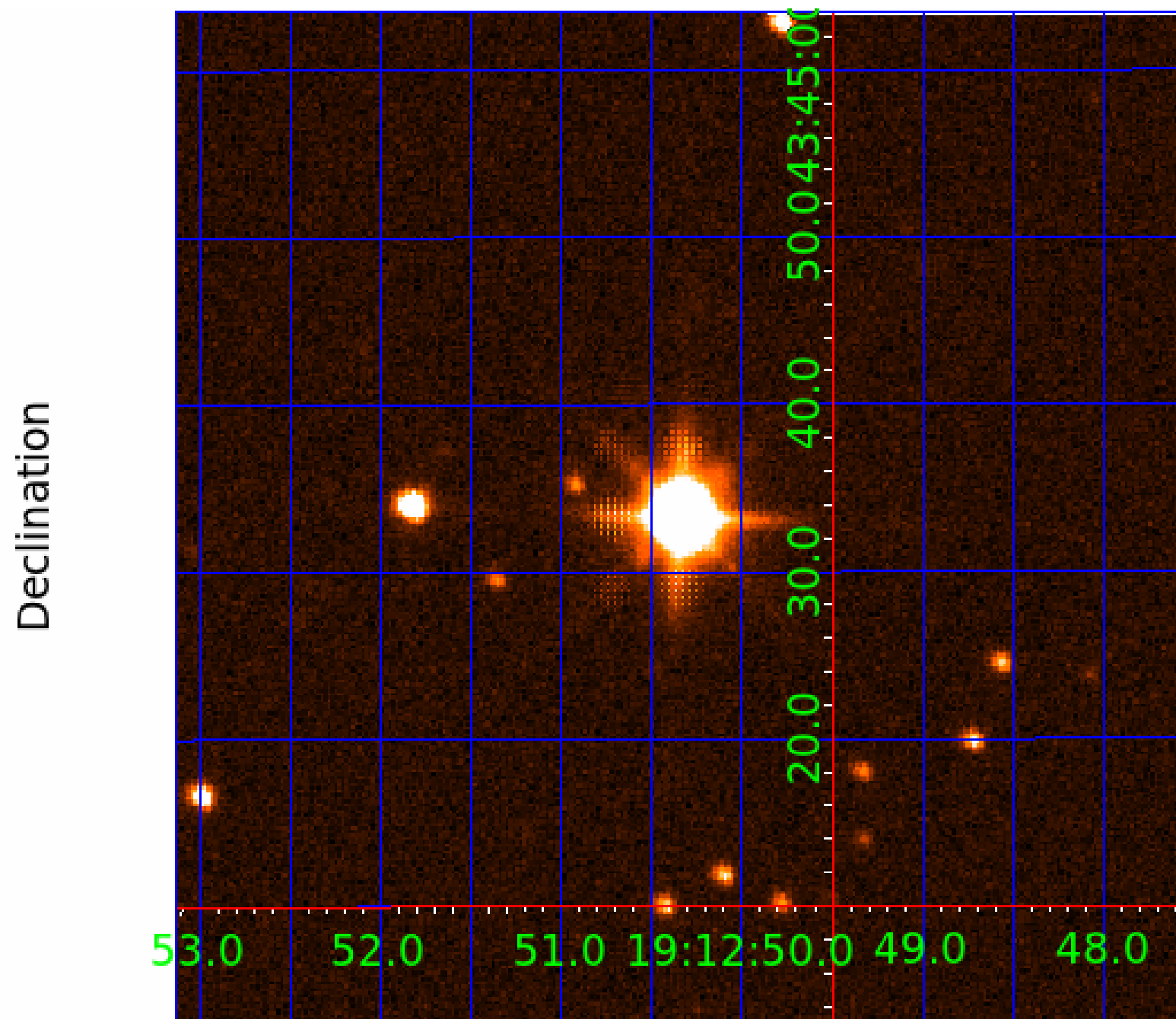
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 007950550

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})
007950550-01	OBS	No	78.754453	187.099506	53.7	1.615	31.6	16.3	10.66	4929	9.55	290.62
007950550-02	OBS	No	55.808550	138.872074	58.3	3.245	15.3	17.3	10.66	4929	9.37	459.99
007950550-03	OBS	No	42.951829	159.829241	41.0	5.498	15.7	11.4	10.66	4929	8.16	652.20
007950550-04	OBS	No	44.561631	161.040643	52.2	1.207	15.2	18.4	10.66	4929	9.53	620.97
007950550-05	OBS	No	131.379320	242.059586	29.5	11.224	15.0	7.7	10.66	4929	6.93	146.89
007950550-06	OBS	No	82.129715	143.985409	37.5	16.367	15.4	8.8	10.66	4929	7.65	274.80
007950550-07	OBS	No	51.755812	179.880861	10.9	1.900	14.1	3.5	10.66	4929	3.63	508.64
007950550-08	OBS	No	149.936248	138.841227	69.5	7.544	22.6	16.5	10.66	4929	10.82	123.16
007950550-09	OBS	No	37.154510	135.118424	21.9	8.813	14.3	8.8	10.66	4929	5.95	791.29
007950550-10	OBS	No	68.278848	136.425466	186.5	5.314	12.6	1.4	10.66	4929	16.52	351.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007950550-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-02	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED— HALO_GHOST
007950550-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS— CENT_SATURATED
007950550-06	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT— CENT_SATURATED—HALO_GHOST
007950550-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_SATURATED
007950550-09	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED— HALO_GHOST
007950550-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT— MOD_POS_ALT—CENT_SATURATED

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

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

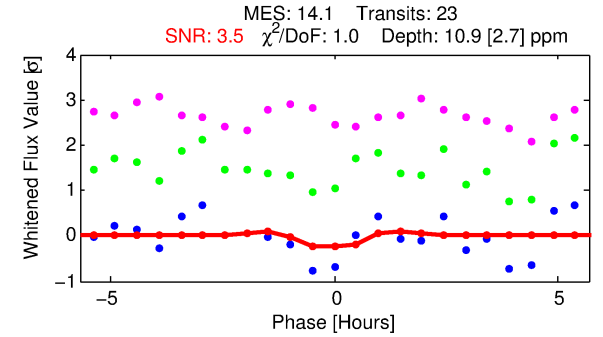
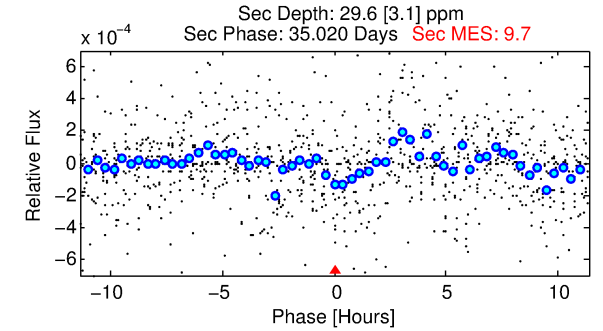
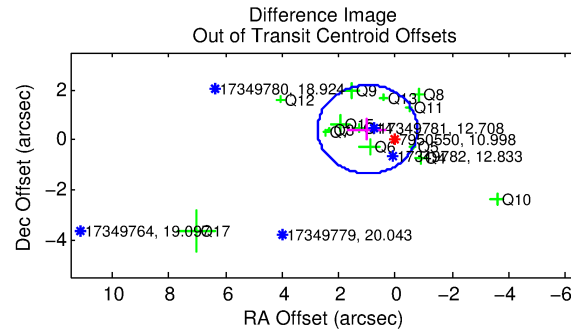
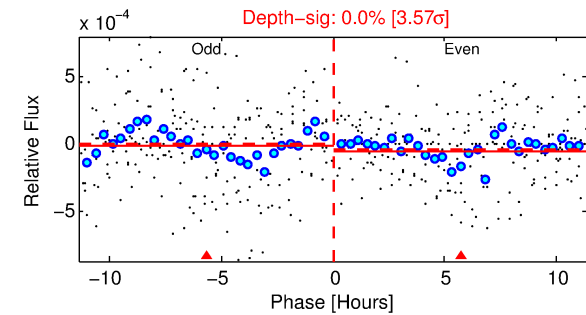
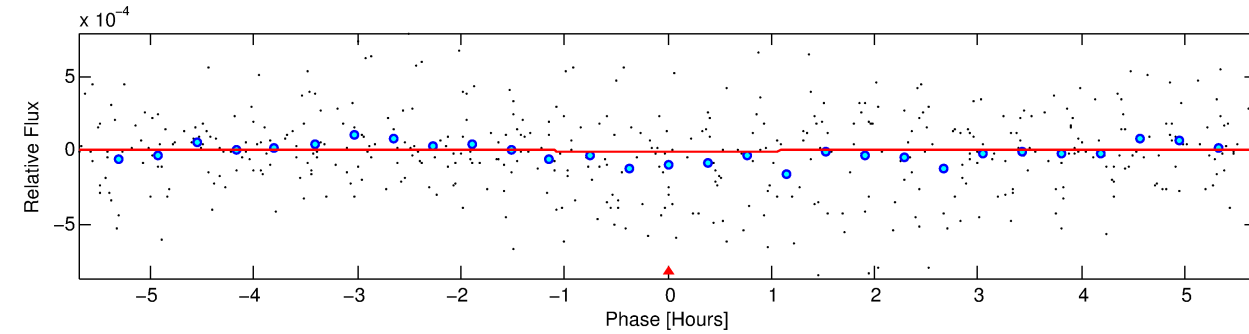
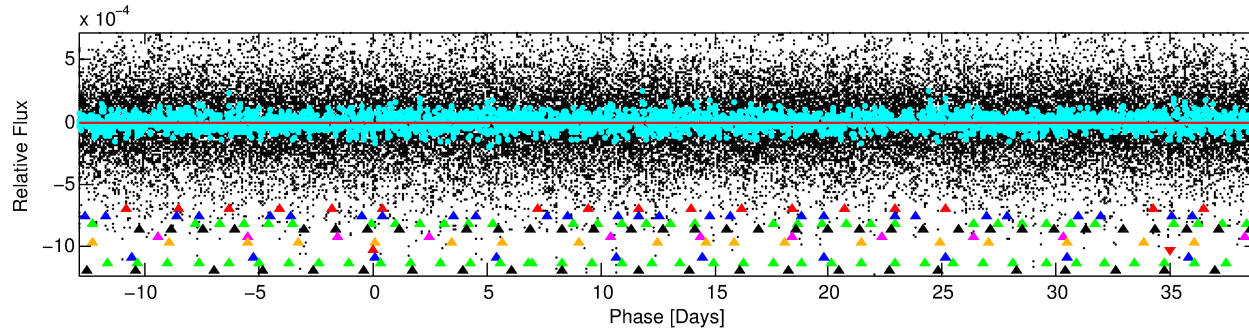
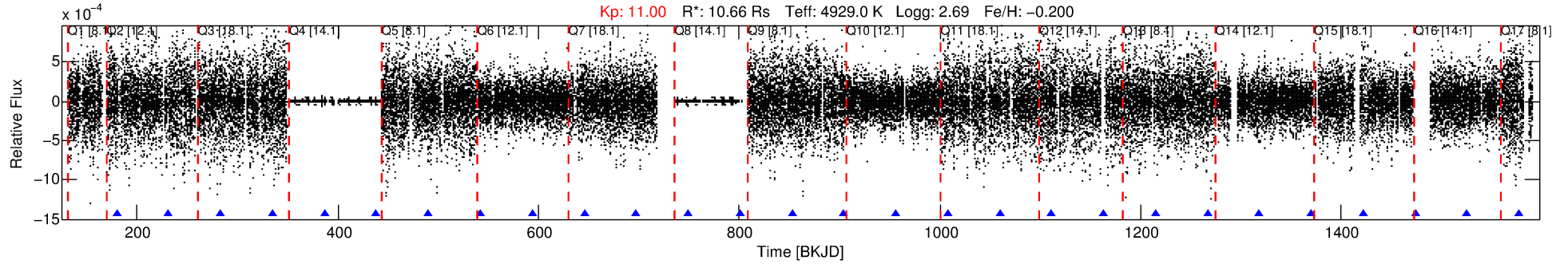
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007950550-07

No Significant Match Found

DV One-Page Summary

KIC: 7950550 Candidate: 7 of 10 Period: 51.756 d



DV Fit Results:

Period = 51.75581 [0.00130] d
Epoch = 179.8809 [0.0098] BKJD
Rp/R* = 0.0031 [0.0105]
a/R* = 169.48 [1911.92]
b = 0.59 [13.28]
Seff = 508.64 [101.49]
Teq = 1211 [60] K
Rp = 3.63 [12.21] Re
a = 0.3436 [0.0556] AU
Ag = 145.93 [980.32] [0.15 σ]
Teffp = 6507 [10927] K [0.48 σ]

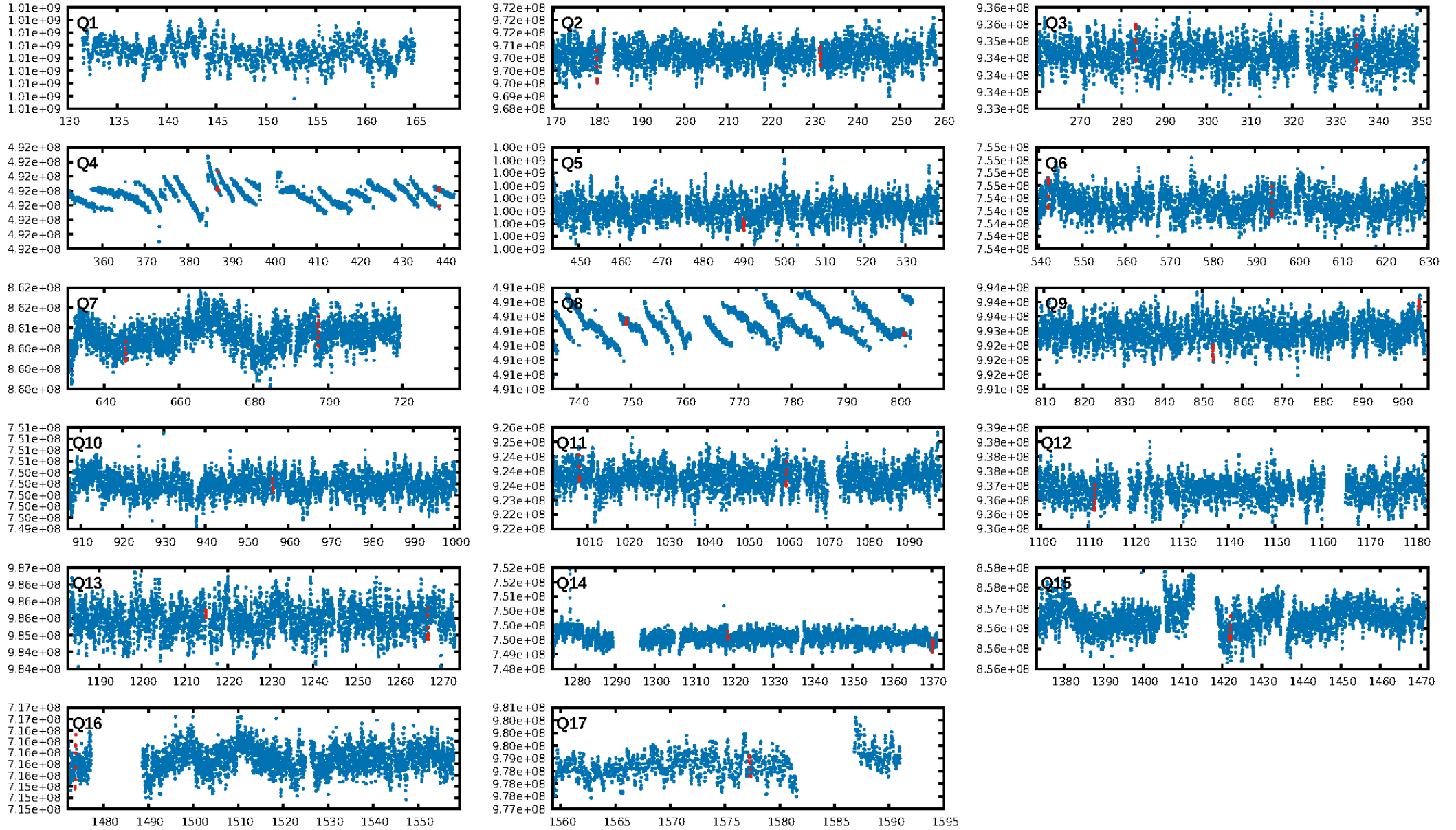
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [76.71 σ]
LongPeriod-sig: 100.0% [25.87 σ]
ModelChiSquare2-sig: 49.1%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [23/23]
GhostDiagnostic-chr: -0.0598
Centroid-sig: 97.1%
Centroid-so: 1.371 arcsec [0.16 σ]
OotOffset-rm: 1.071 arcsec [1.82 σ]
KicOffset-rm: 1.205 arcsec [2.26 σ]
OotOffset-st: 3/4/3/4 [14]
KicOffset-st: 3/4/3/4 [14]
DiffImageQuality-fgm: 0.43 [6/14]
DiffImageOverlap-fno: 0.93 [14/15]

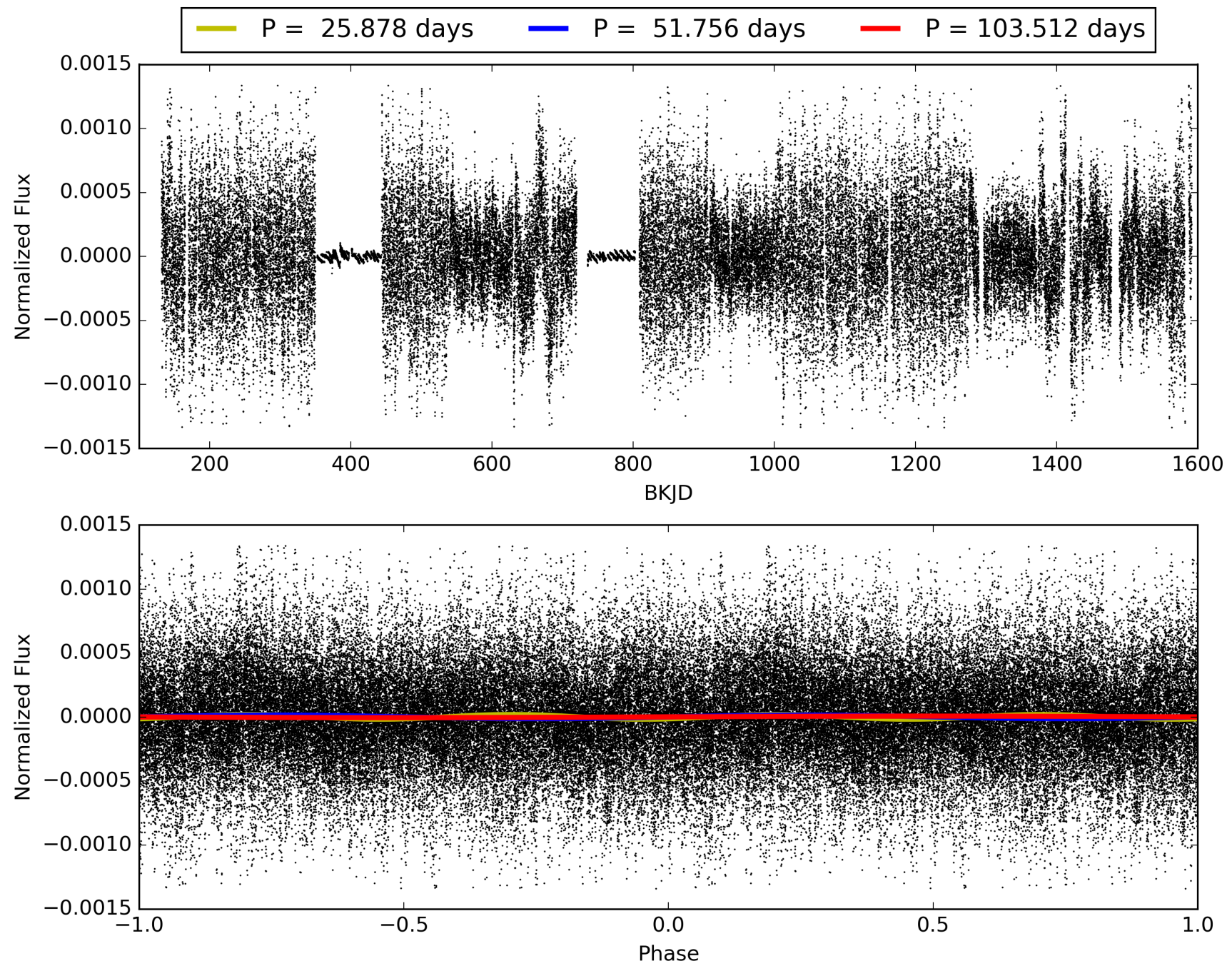
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:46:34 Z

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

TCE 007950550-07, PDC Light Curves

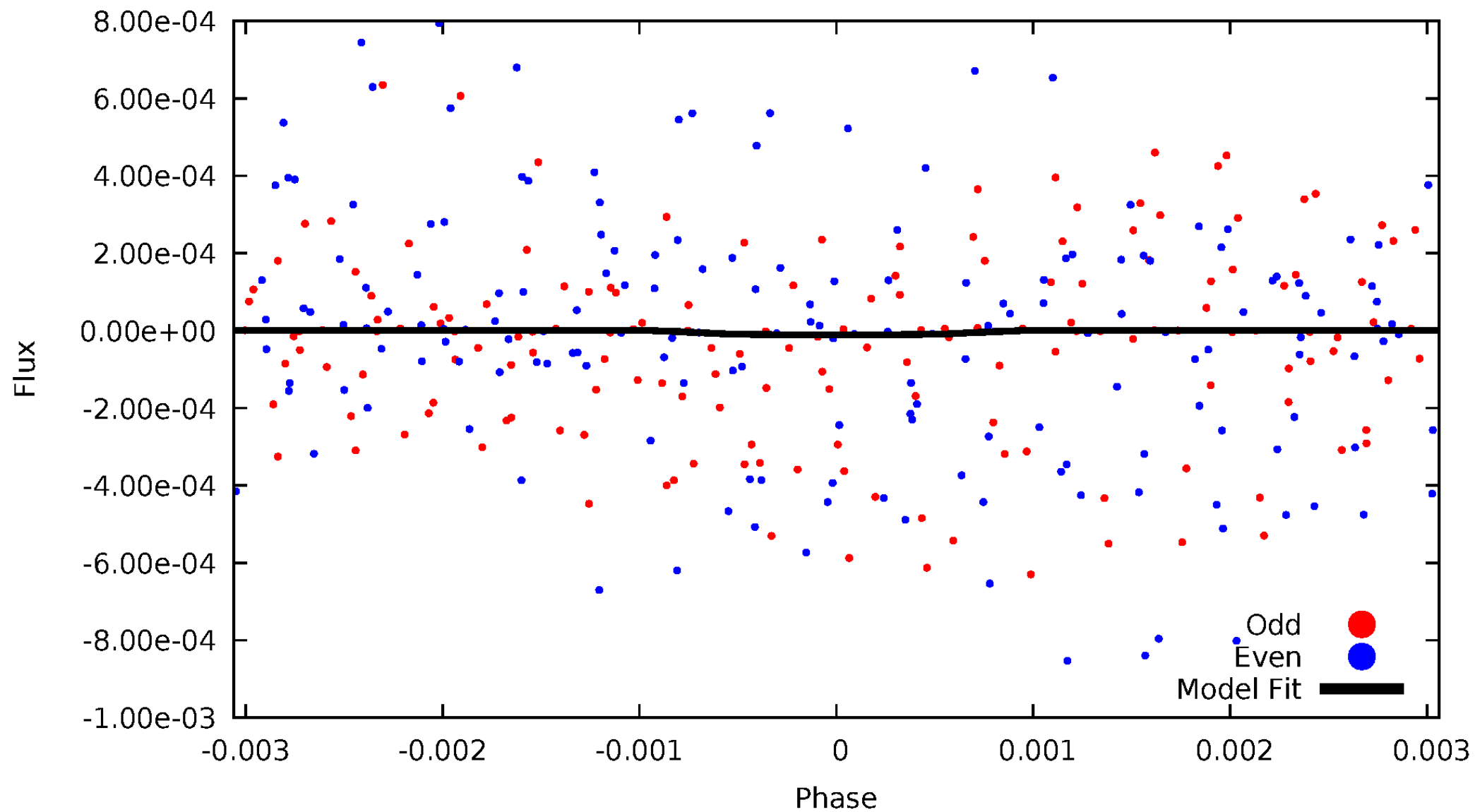


TCE 007950550-07



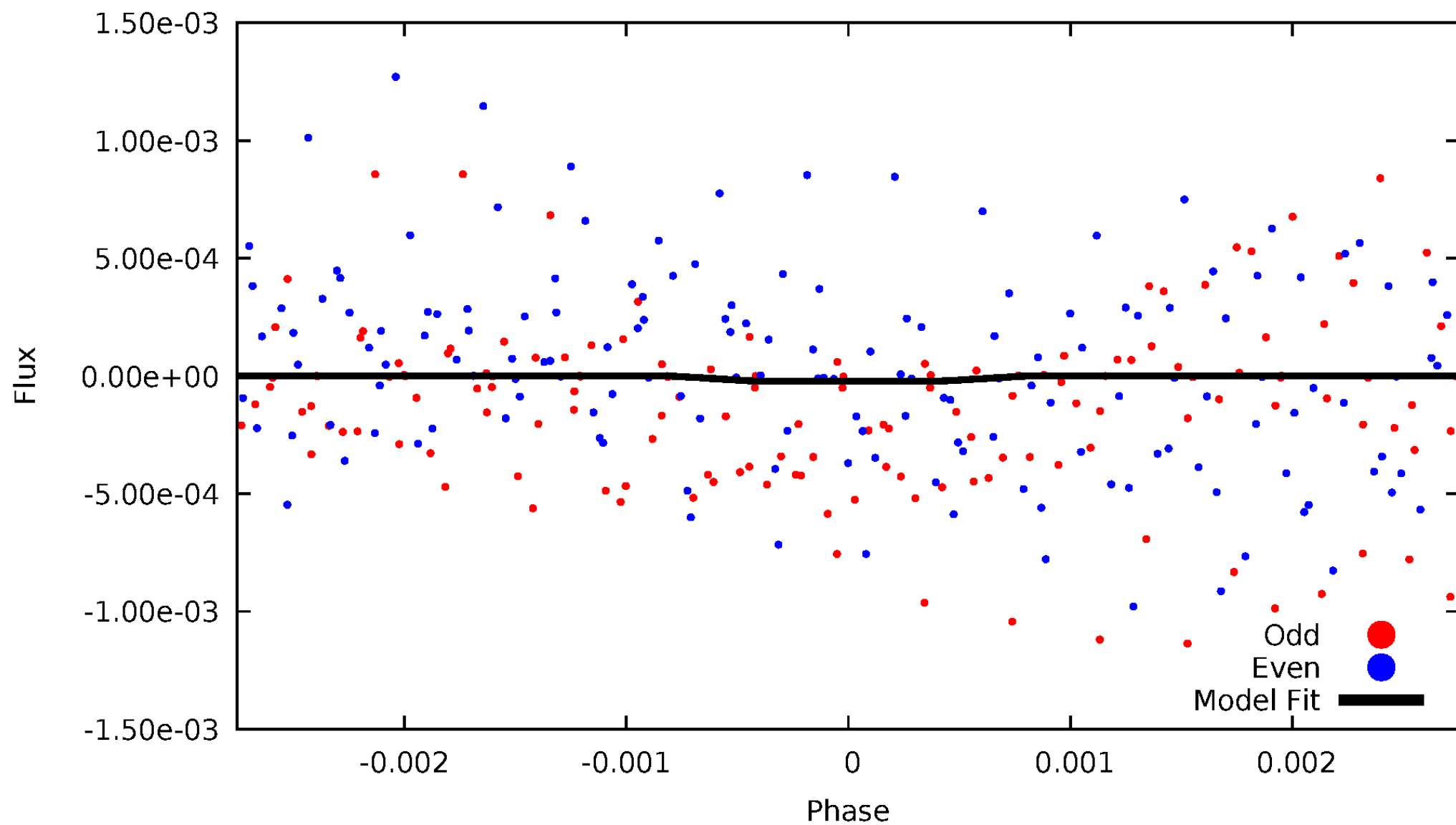
DV Odd/Even

TCE 007950550-07



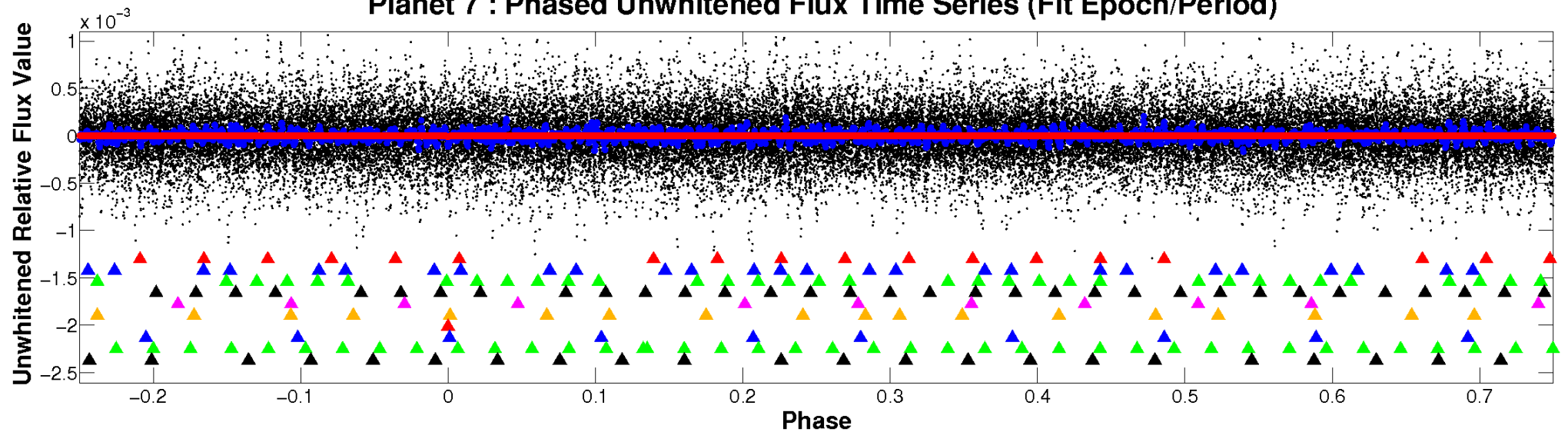
ALT Odd/Even

TCE 007950550-07

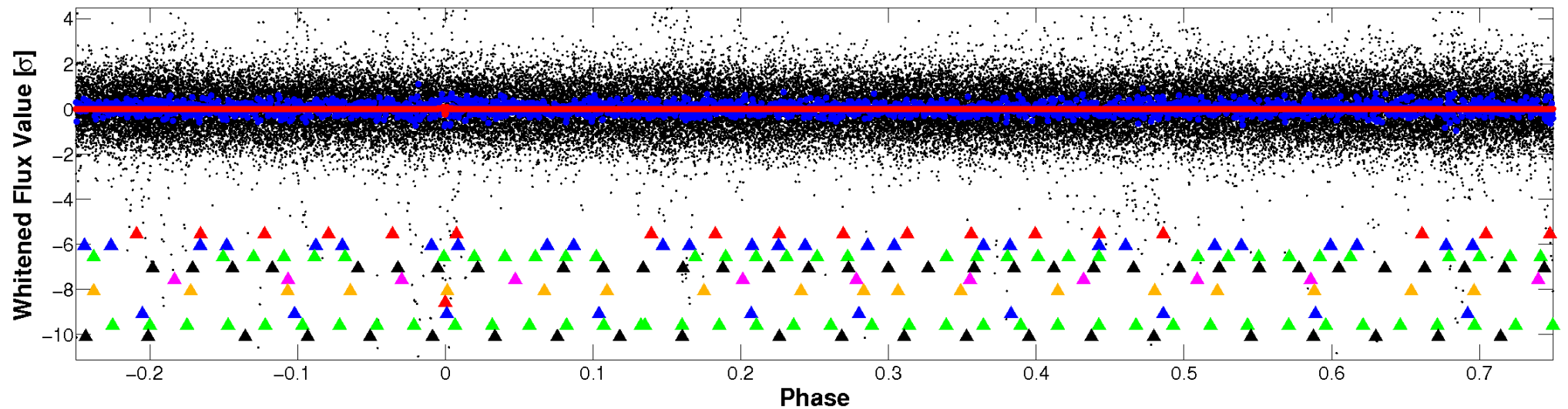


Non-Whitened Vs. Whitened Light Curve

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

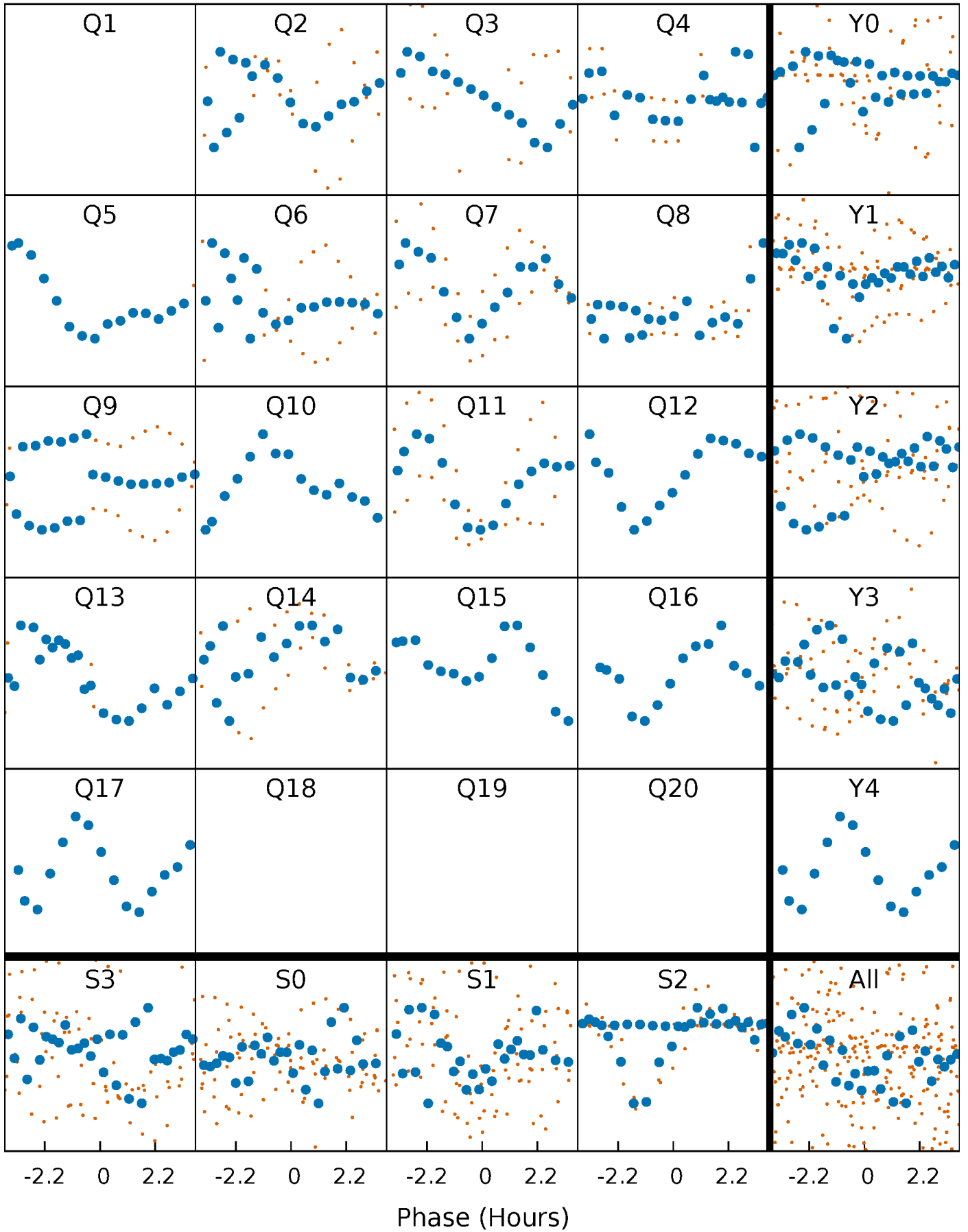


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



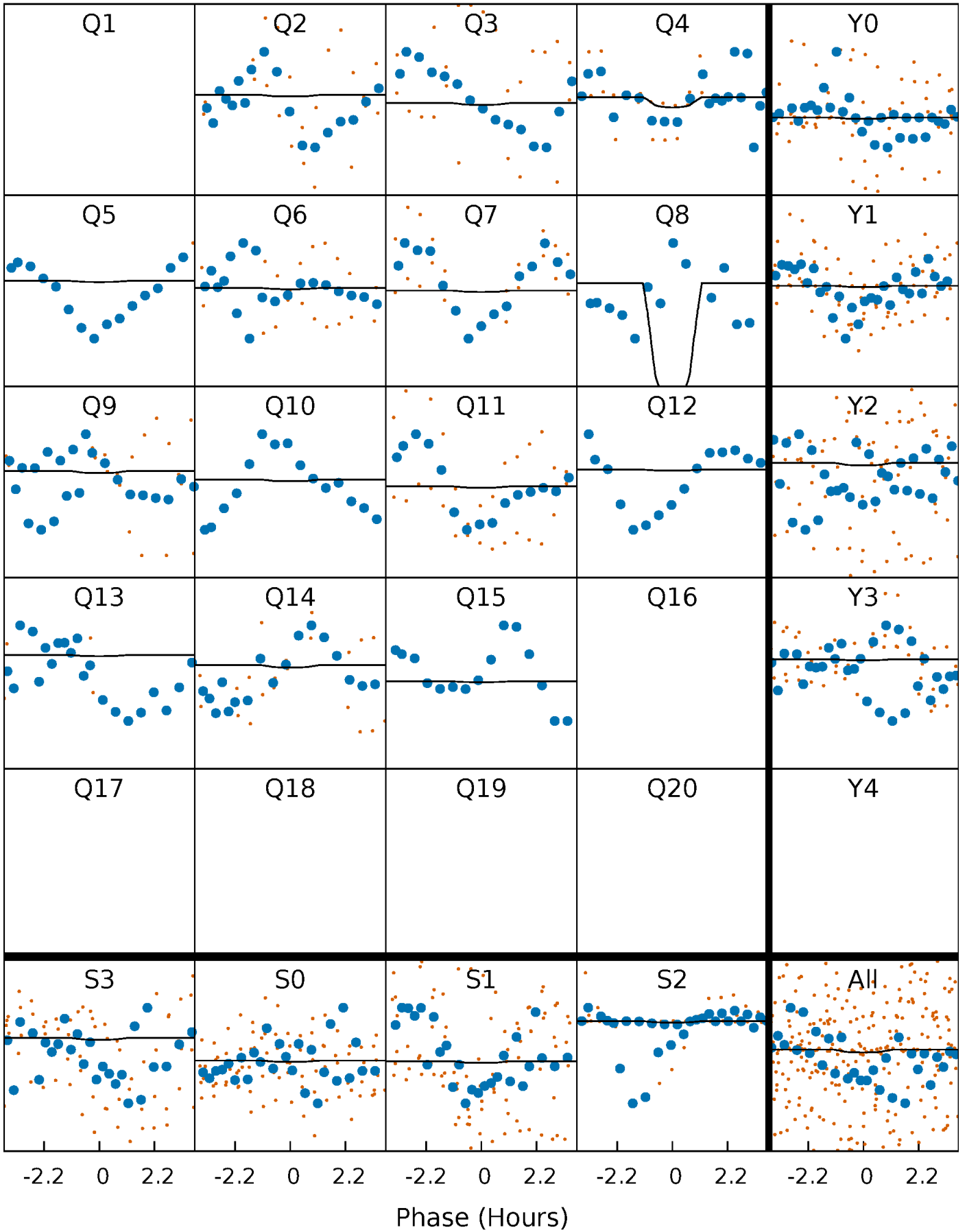
PDC Quarter-Phased Transit Curves

TCE 007950550-07 $P = 51.755812$ Days $T_0 = 179.880861$ (BKJD)



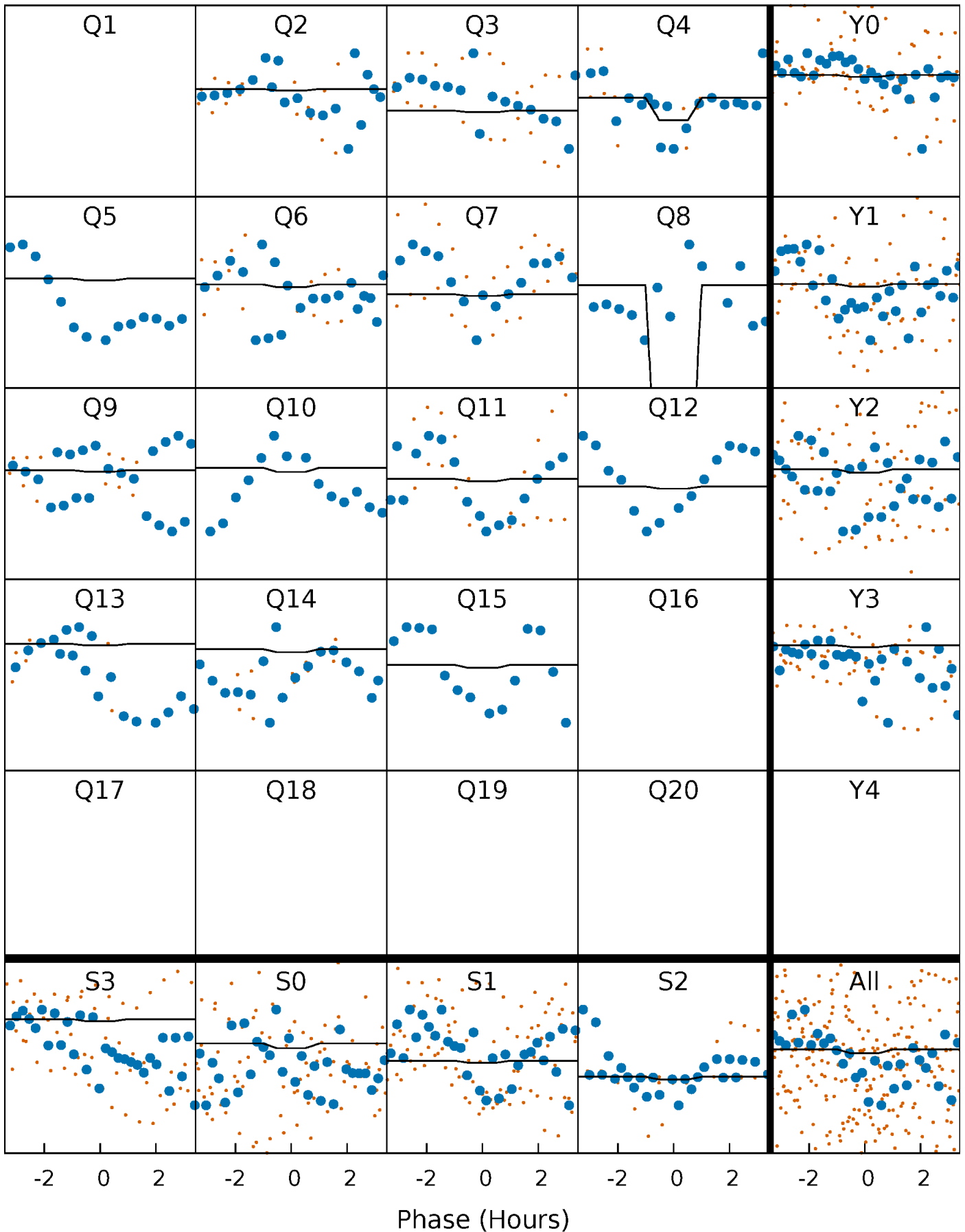
DV Quarter-Phased Transit Curves

TCE 007950550-07 P= 51.755812 Days $T_0=179.880861$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

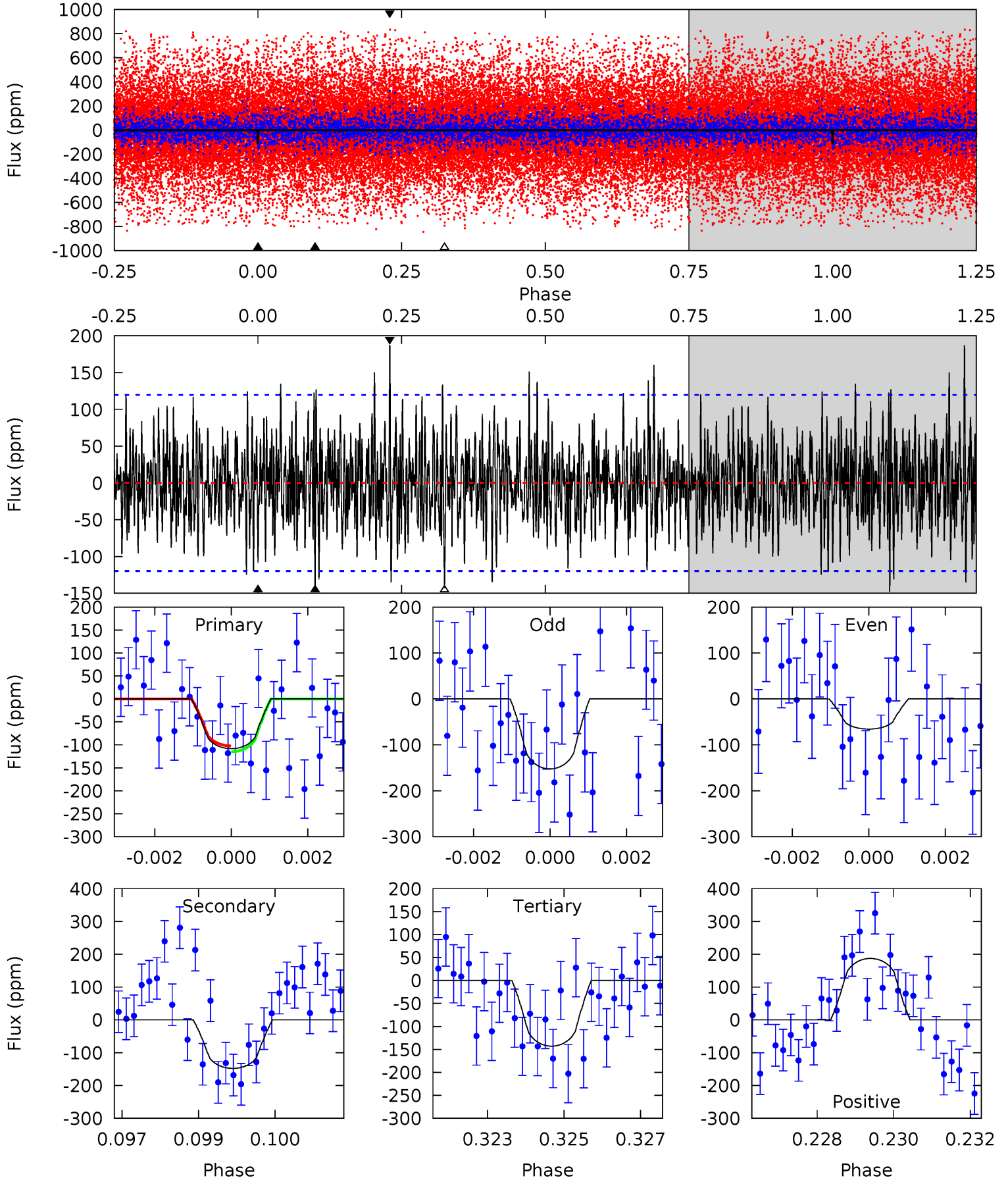
TCE 007950550-07 P= 51.754753 Days $T_0=179.875135$ (BKJD)



DV Model-Shift Uniqueness Test

007950550-07, P = 51.755812 Days, E = 128.125049 Days

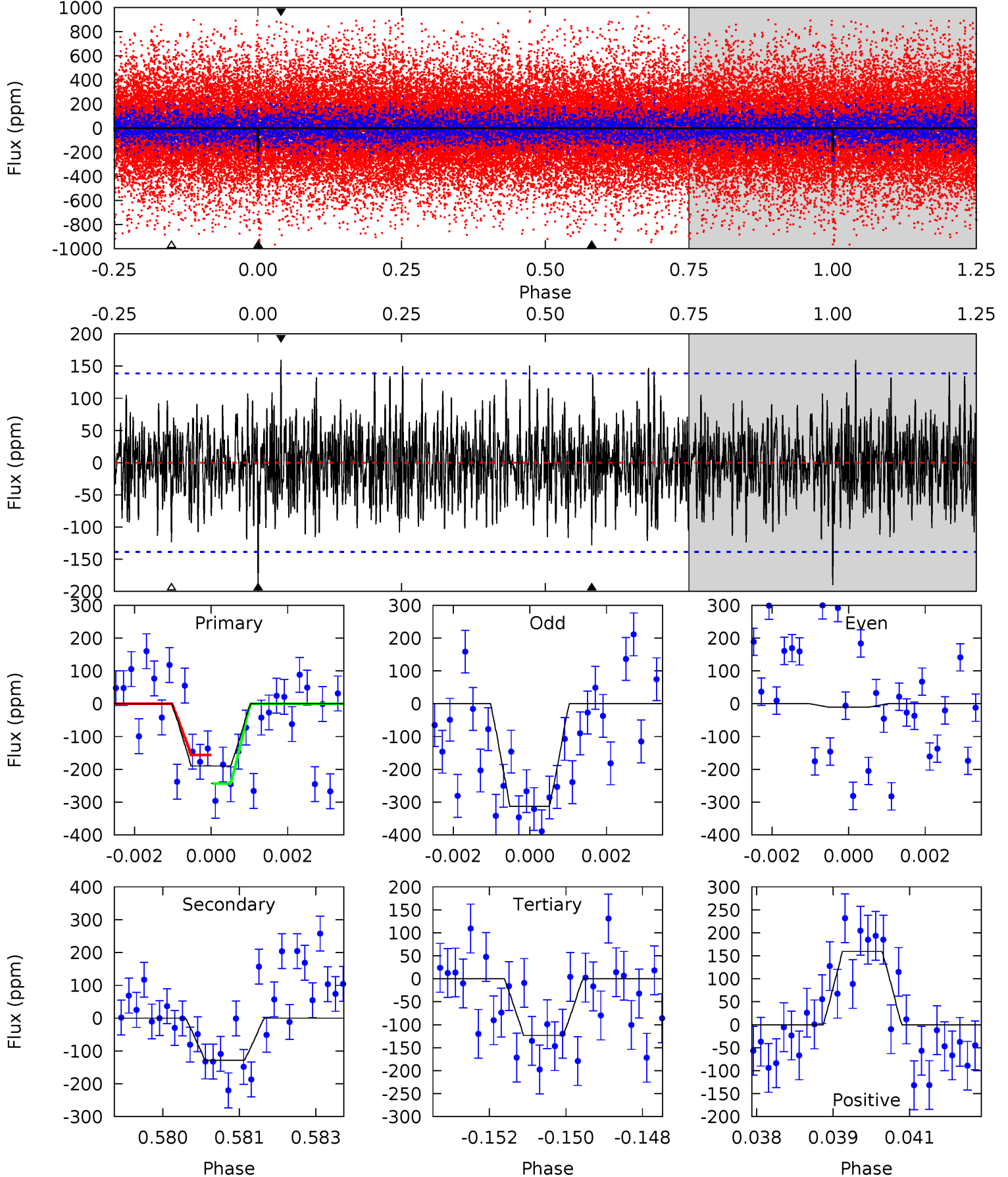
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.84	6.61	6.38	8.36	5.34	3.12	2.05	-1.54	-3.52	0.22	-1.76	1.94	3.68	0.56	0.28



Alt Model-Shift Uniqueness Test

007950550-07, $P = 51.754753$ Days, $E = 128.120382$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.35	4.96	4.78	6.18	5.37	3.16	1.74	2.57	1.17	0.18	-1.22	5.92	0.57	0.46	1.69



Stellar Parameters For KIC 007950550

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4929^{+38}_{-135}	$2.688^{+0.030}_{-0.030}$	$-0.200^{+0.100}_{-0.150}$	$10.657^{+1.098}_{-2.562}$	$2.022^{+0.770}_{-0.847}$	$0.002^{+0.001}_{-0.000}$
	+1%/-3%	+1%/-1%	+50%/-75%	+10%/-24%	+38%/-42%	+34%/-9%
Source	PHO55	AST55	SPE55	DSEP		

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

Secondary Eclipse Parameters for KIC 007950550-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-148 ± 22	$9.87^{+10.41}_{-6.68}$	1687^{+43}_{-55}	5755^{+5679}_{-1478}	97^{+811}_{-73}
Alt.	-128 ± 26	$10.20^{+10.83}_{-7.15}$	1685^{+41}_{-52}	5458^{+5982}_{-1443}	81^{+814}_{-63}

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 $A_{obs} \gg 1.0$

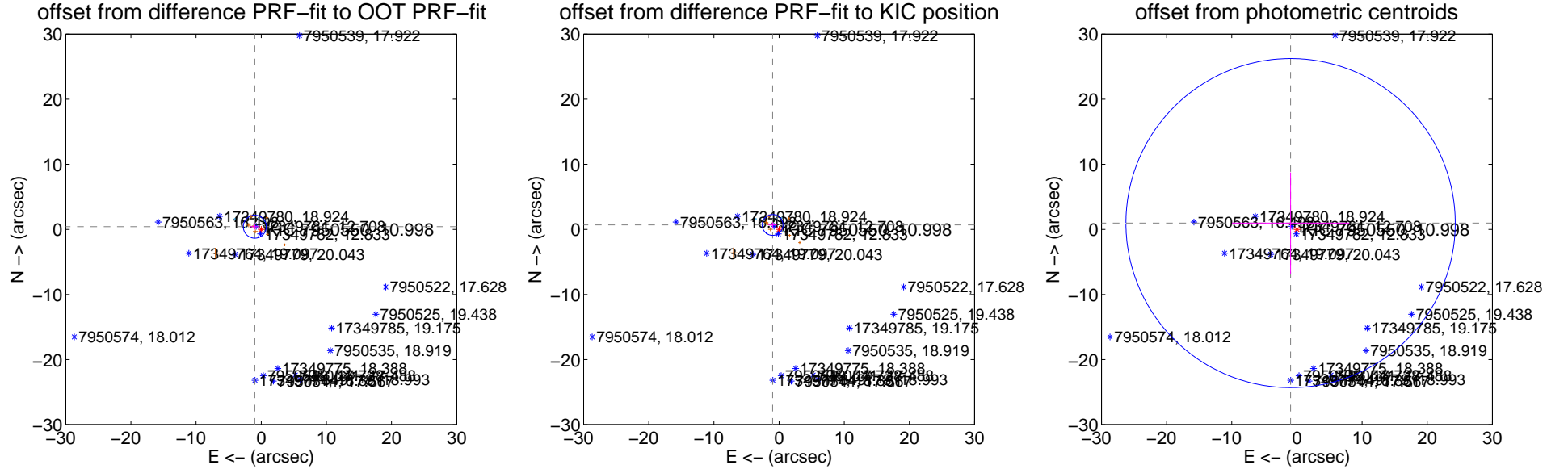
DV Centroid Data

Supplemental centroid analysis for 007950550-07. **Kepler magnitude: 11.00.** Transit SNR 3.48

There are 6 quarters with good PRF difference image offsets

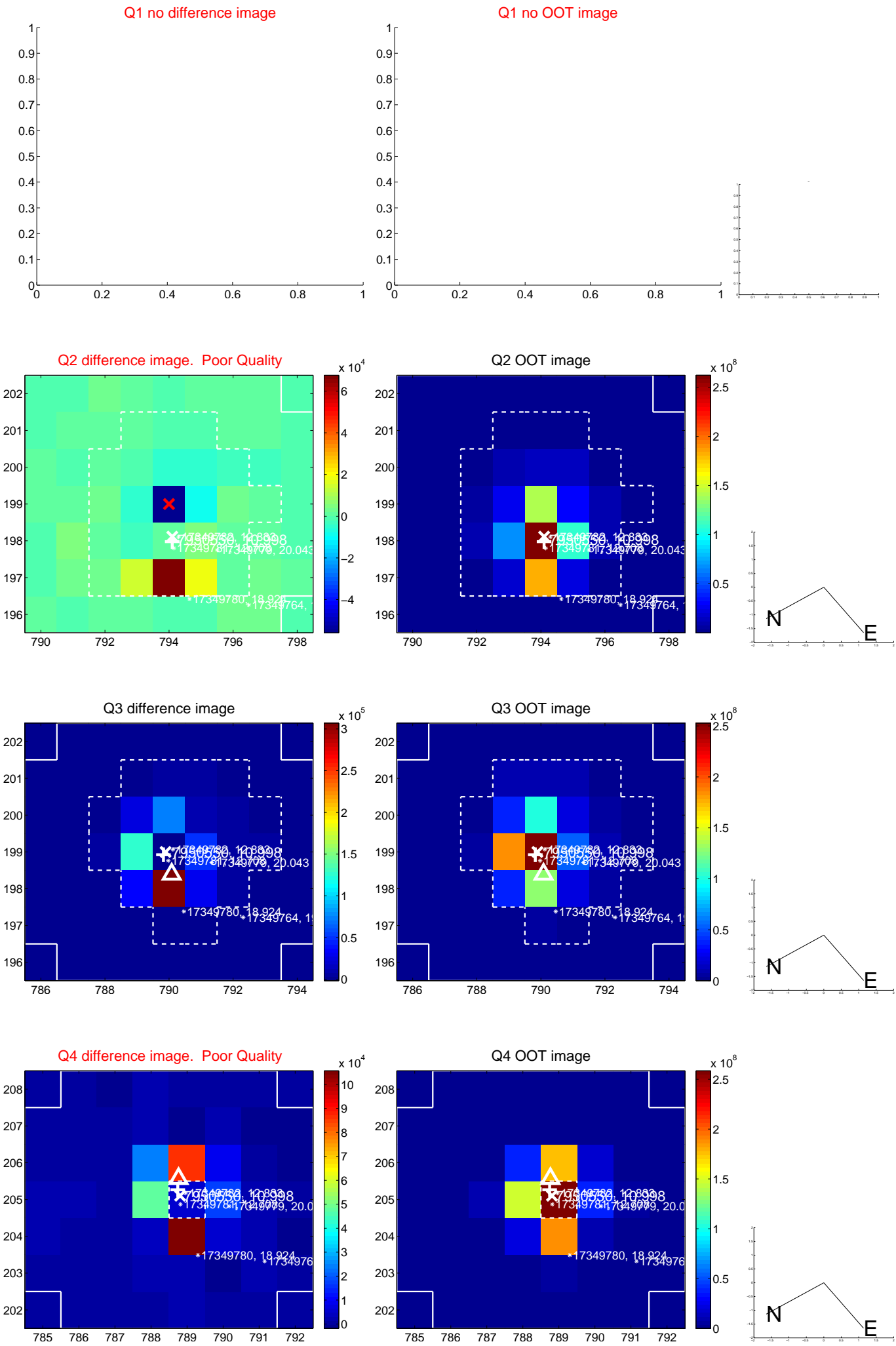
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.071 ± 0.589	1.82	0.987 ± 0.654	0.416 ± 0.423
PRF-fit source offset from KIC position	1.205 ± 0.532	2.26	0.992 ± 0.652	0.683 ± 0.411
photometric centroid source offset	1.37 ± 8.42	0.16	0.97 ± 9.01	0.97 ± 7.79

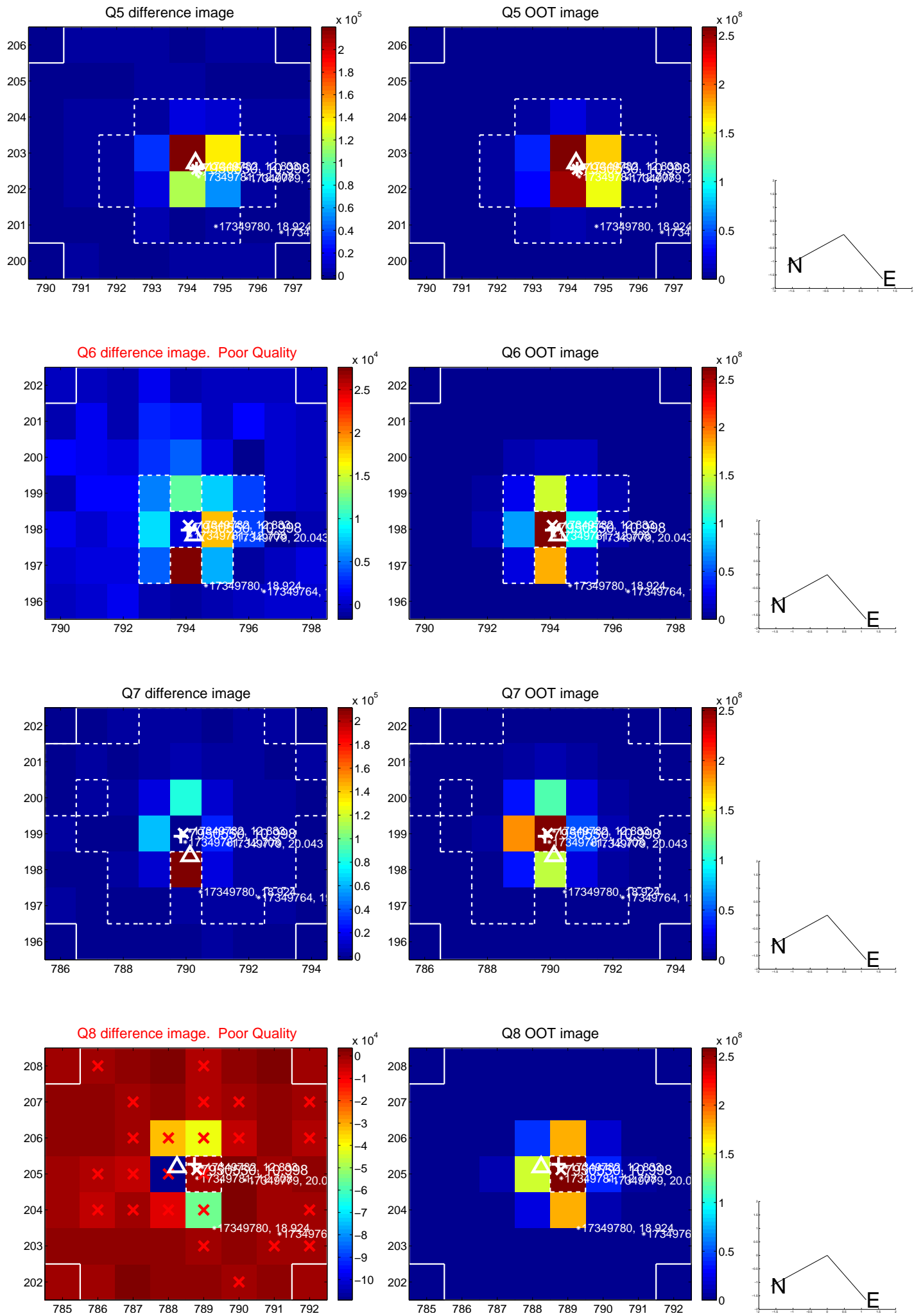


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

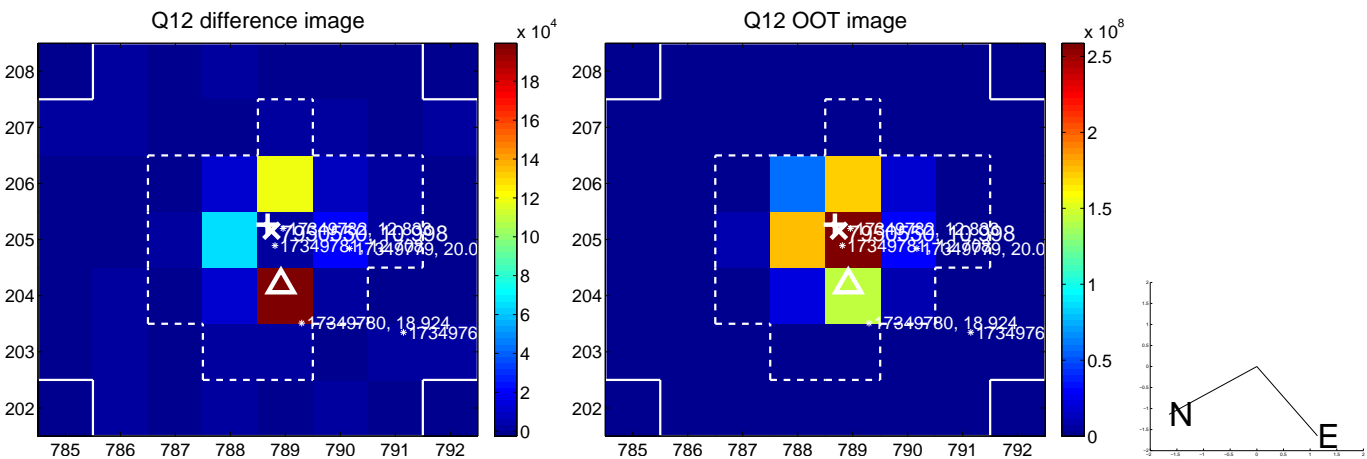
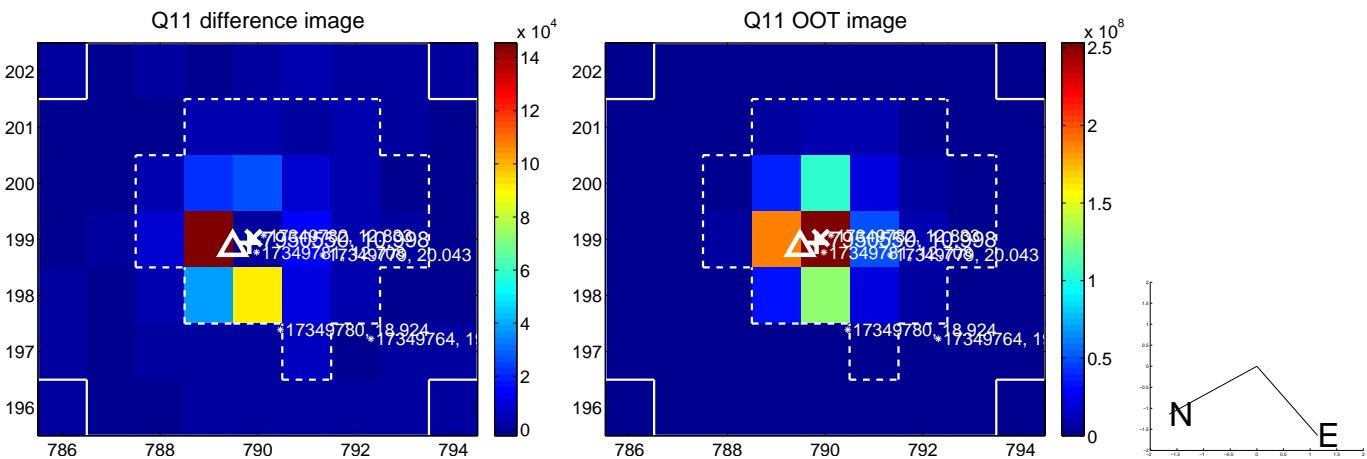
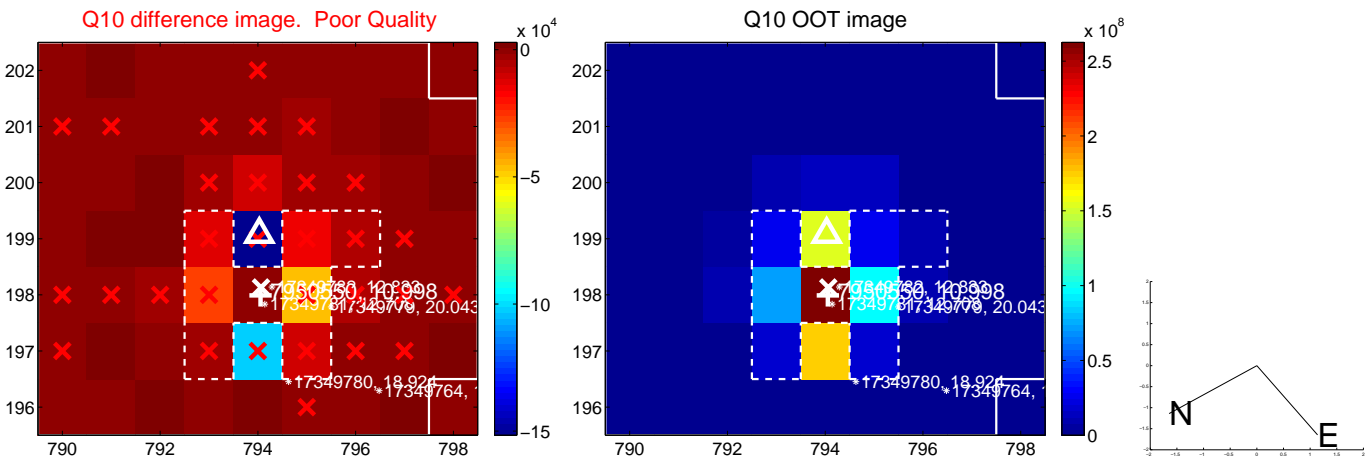
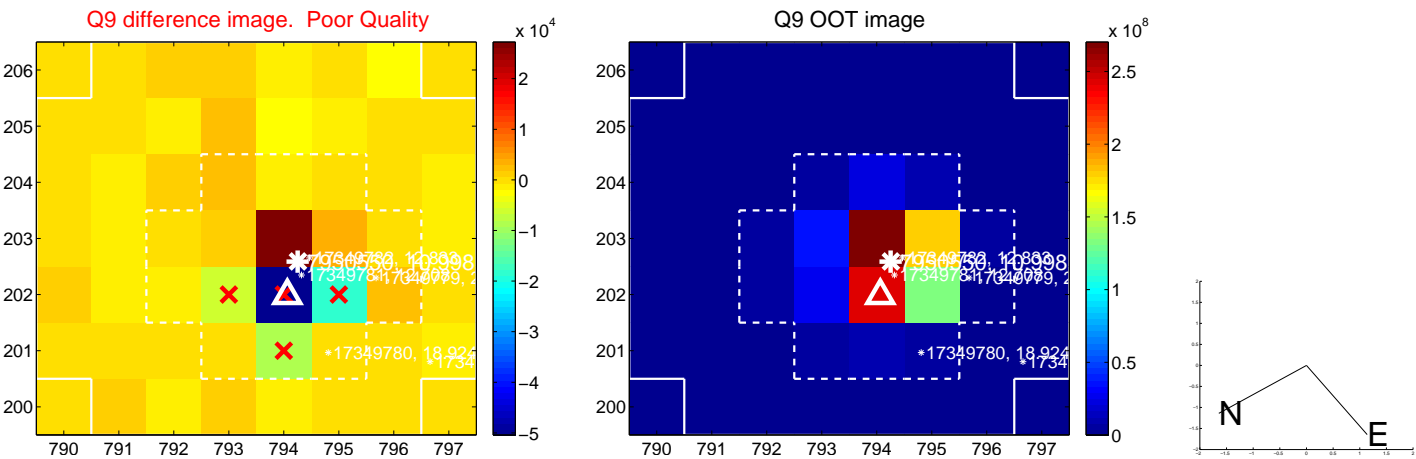
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



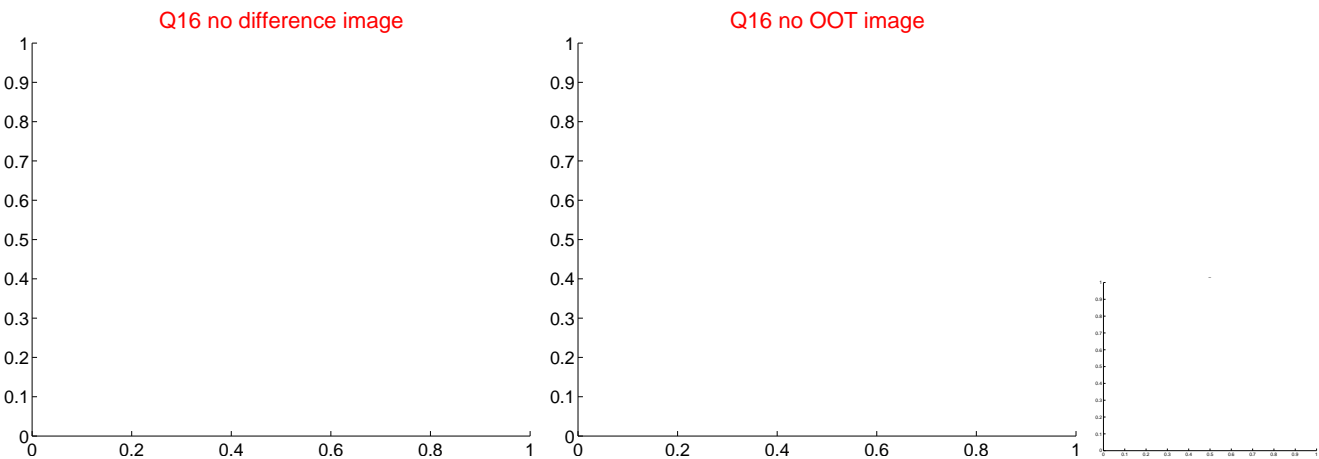
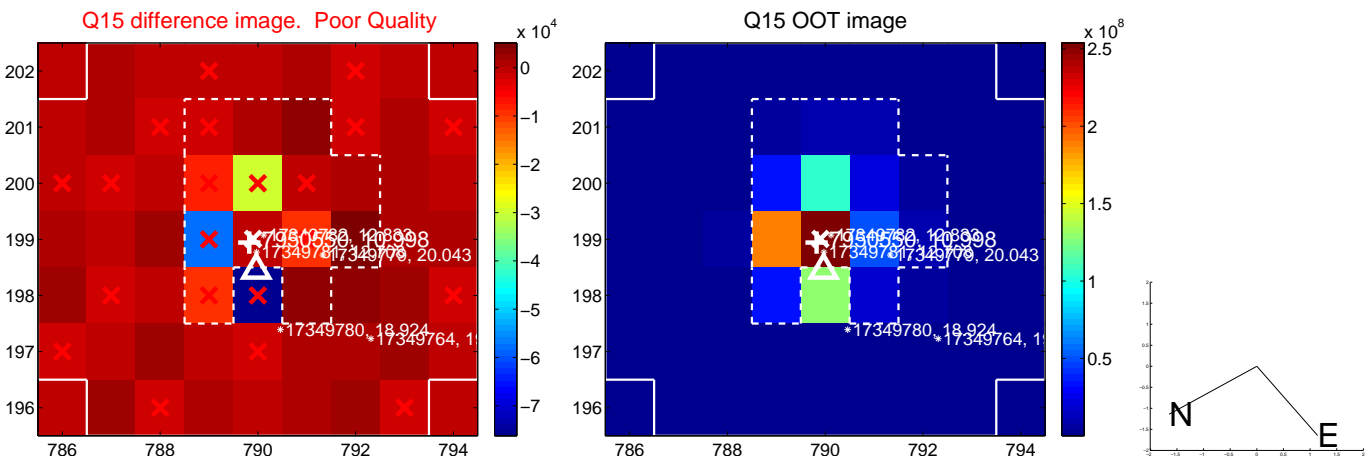
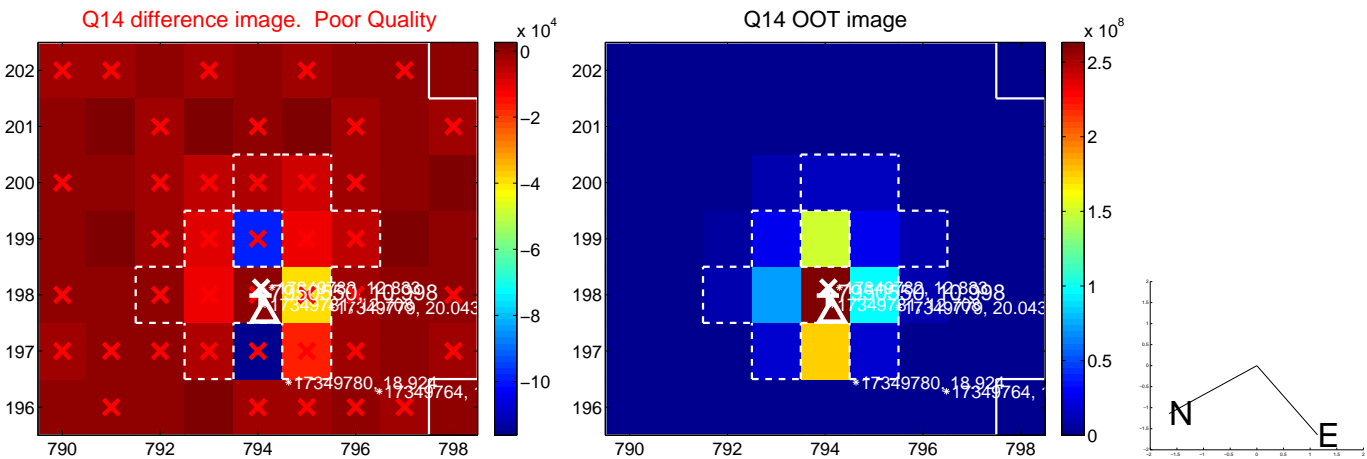
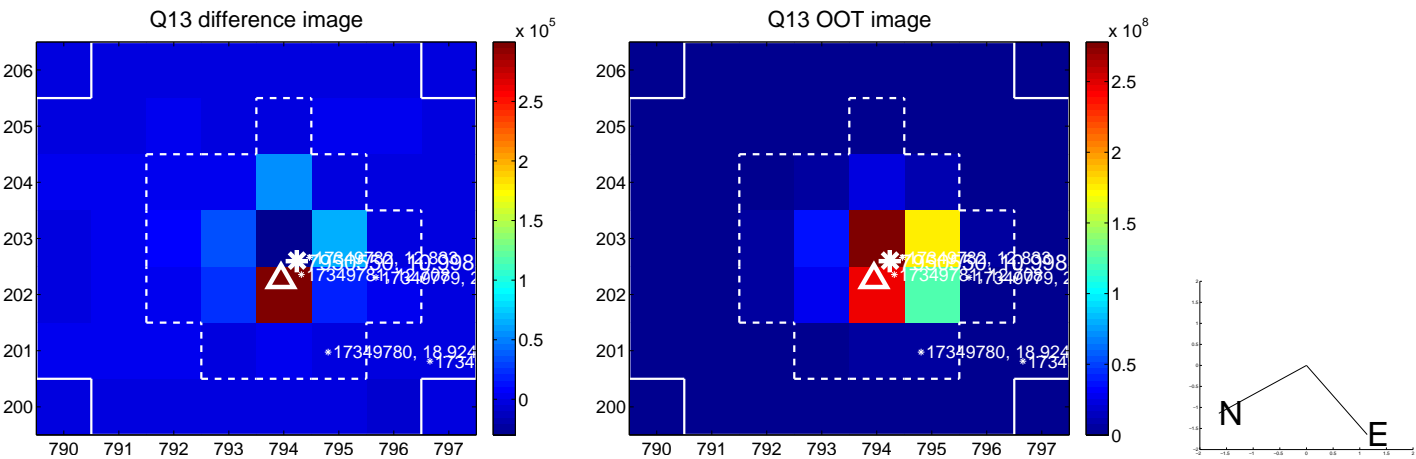
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



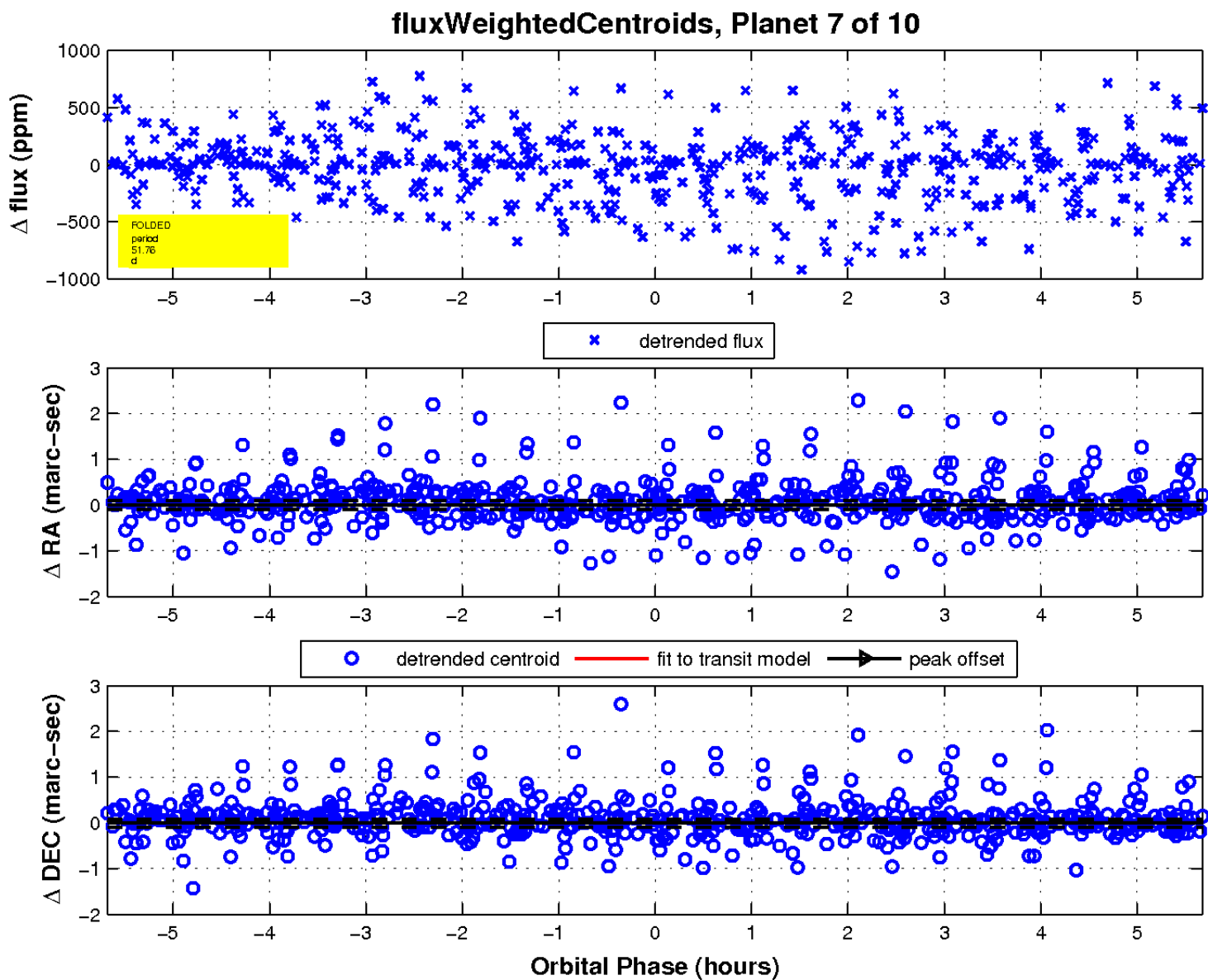
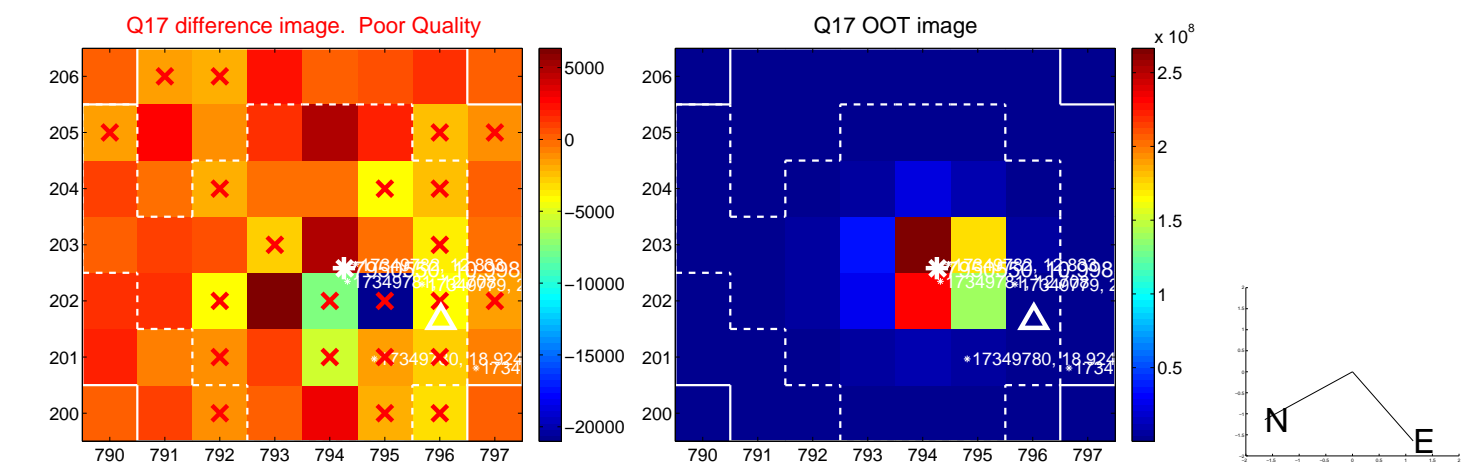
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



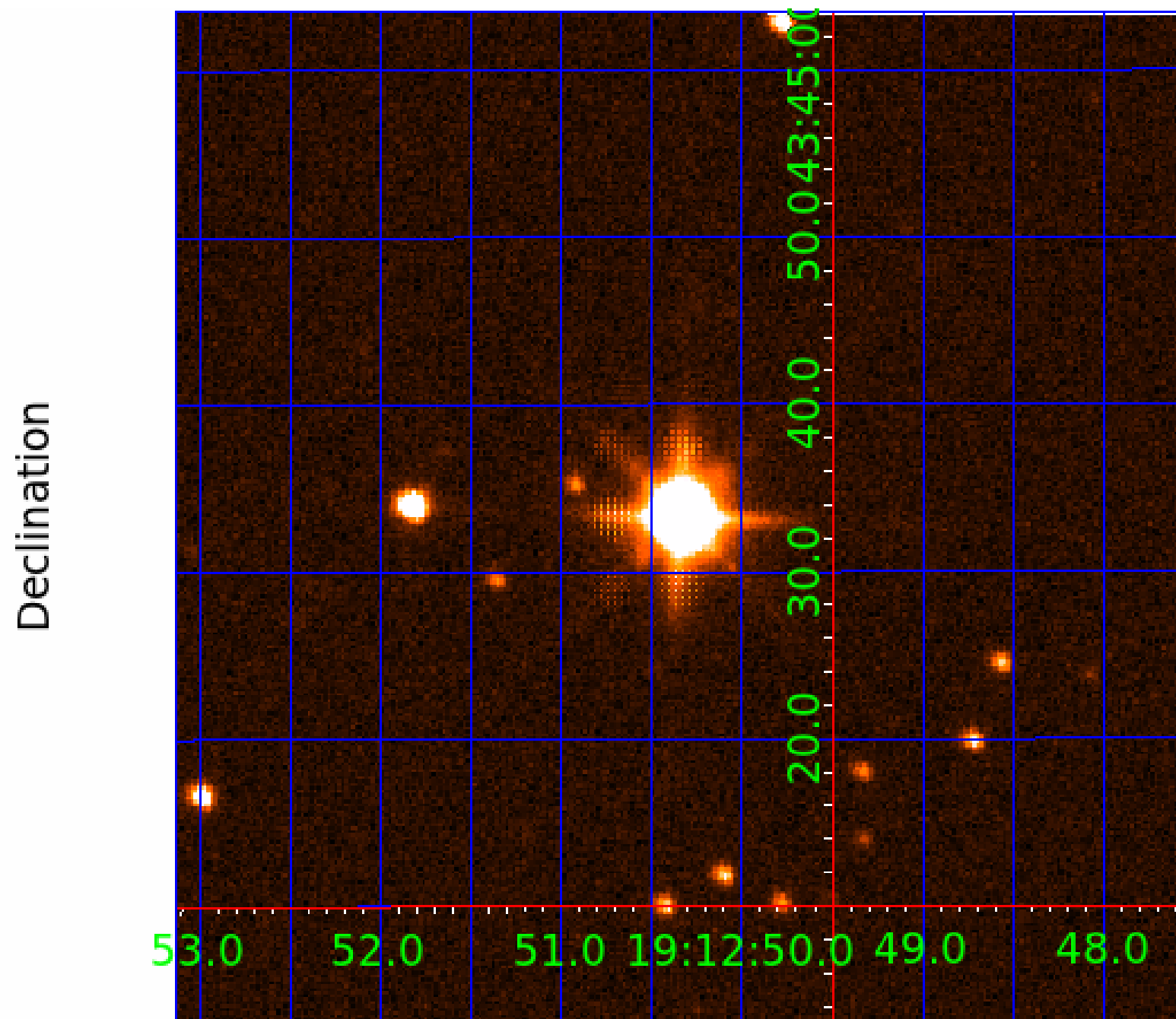
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 007950550

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})
007950550-01	OBS	No	78.754453	187.099506	53.7	1.615	31.6	16.3	10.66	4929	9.55	290.62
007950550-02	OBS	No	55.808550	138.872074	58.3	3.245	15.3	17.3	10.66	4929	9.37	459.99
007950550-03	OBS	No	42.951829	159.829241	41.0	5.498	15.7	11.4	10.66	4929	8.16	652.20
007950550-04	OBS	No	44.561631	161.040643	52.2	1.207	15.2	18.4	10.66	4929	9.53	620.97
007950550-05	OBS	No	131.379320	242.059586	29.5	11.224	15.0	7.7	10.66	4929	6.93	146.89
007950550-06	OBS	No	82.129715	143.985409	37.5	16.367	15.4	8.8	10.66	4929	7.65	274.80
007950550-07	OBS	No	51.755812	179.880861	10.9	1.900	14.1	3.5	10.66	4929	3.63	508.64
007950550-08	OBS	No	149.936248	138.841227	69.5	7.544	22.6	16.5	10.66	4929	10.82	123.16
007950550-09	OBS	No	37.154510	135.118424	21.9	8.813	14.3	8.8	10.66	4929	5.95	791.29
007950550-10	OBS	No	68.278848	136.425466	186.5	5.314	12.6	1.4	10.66	4929	16.52	351.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007950550-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-02	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED— HALO_GHOST
007950550-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS— CENT_SATURATED
007950550-06	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT— CENT_SATURATED—HALO_GHOST
007950550-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_SATURATED
007950550-09	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED— HALO_GHOST
007950550-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT— MOD_POS_ALT—CENT_SATURATED

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

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

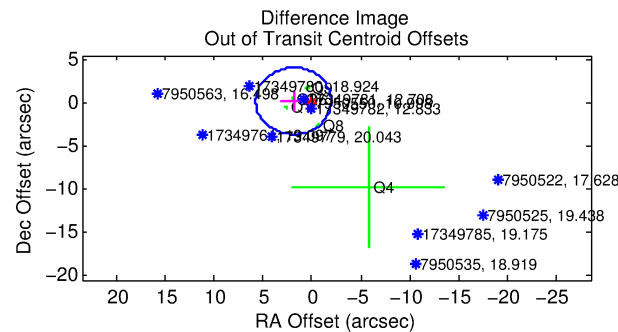
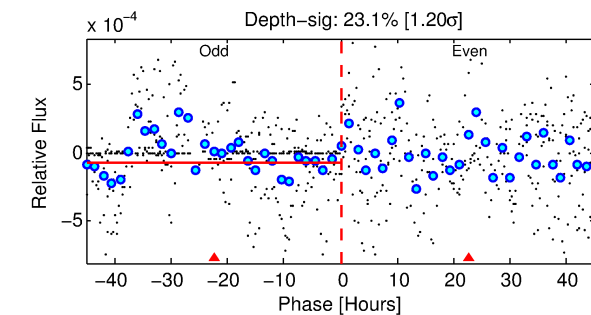
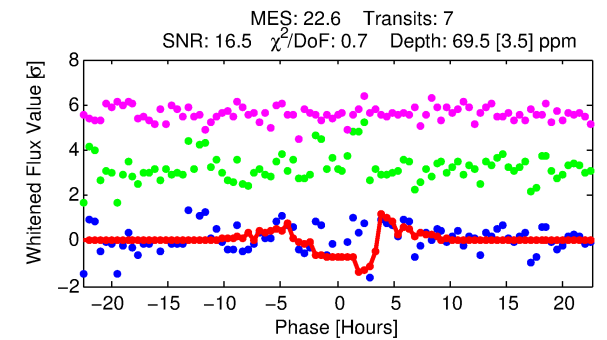
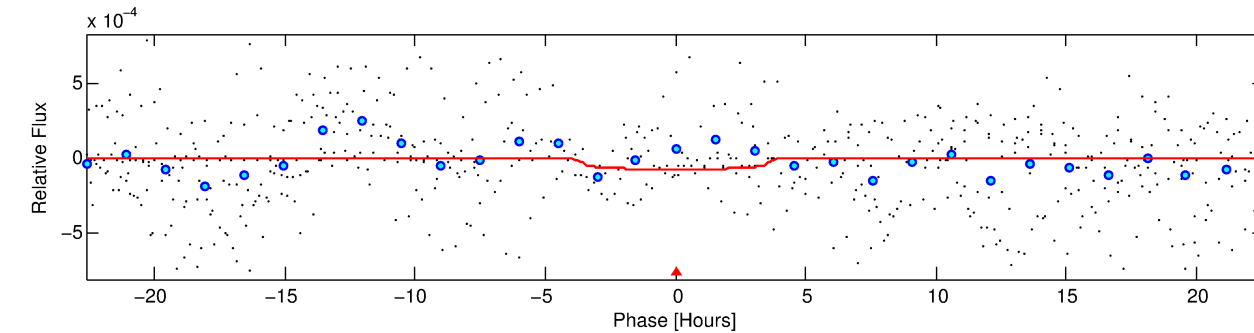
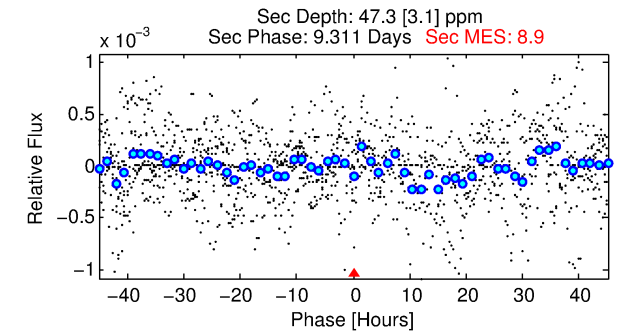
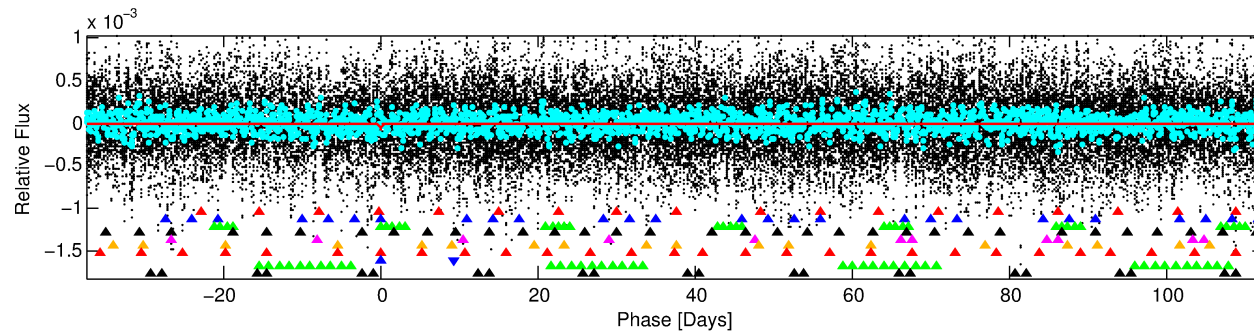
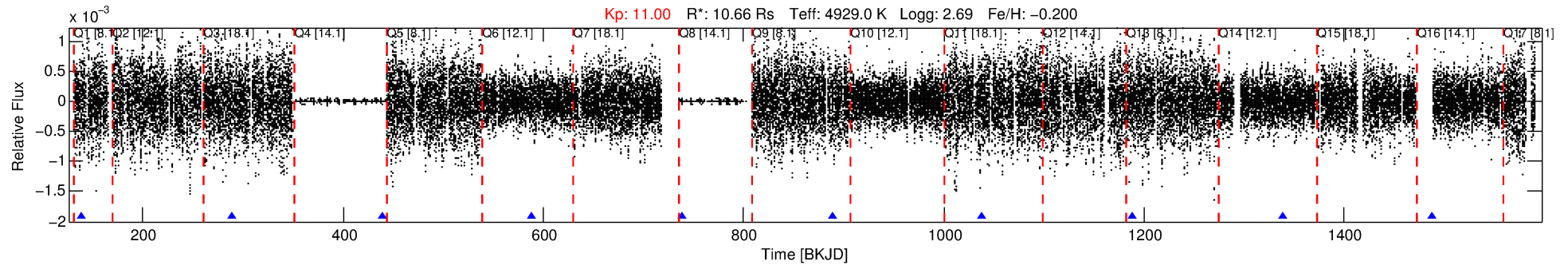
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007950550-08

No Significant Match Found

DV One-Page Summary

KIC: 7950550 Candidate: 8 of 10 Period: 149.936 d



DV Fit Results:

Period = 149.93625 [0.00213] d
Epoch = 138.8412 [0.0099] BKJD
Rp/R* = 0.0093 [0.0013]
a/R* = 68.45 [39.84]
b = 0.90 [0.12]
Seff = 123.16 [24.57]
Teff = 4237 [326] K [10.32σ]
Teq = 849 [42] K
Rp = 10.82 [3.01] Re
a = 0.6983 [0.1131] AU
Ag = 108.35 [35.97] [2.98σ]

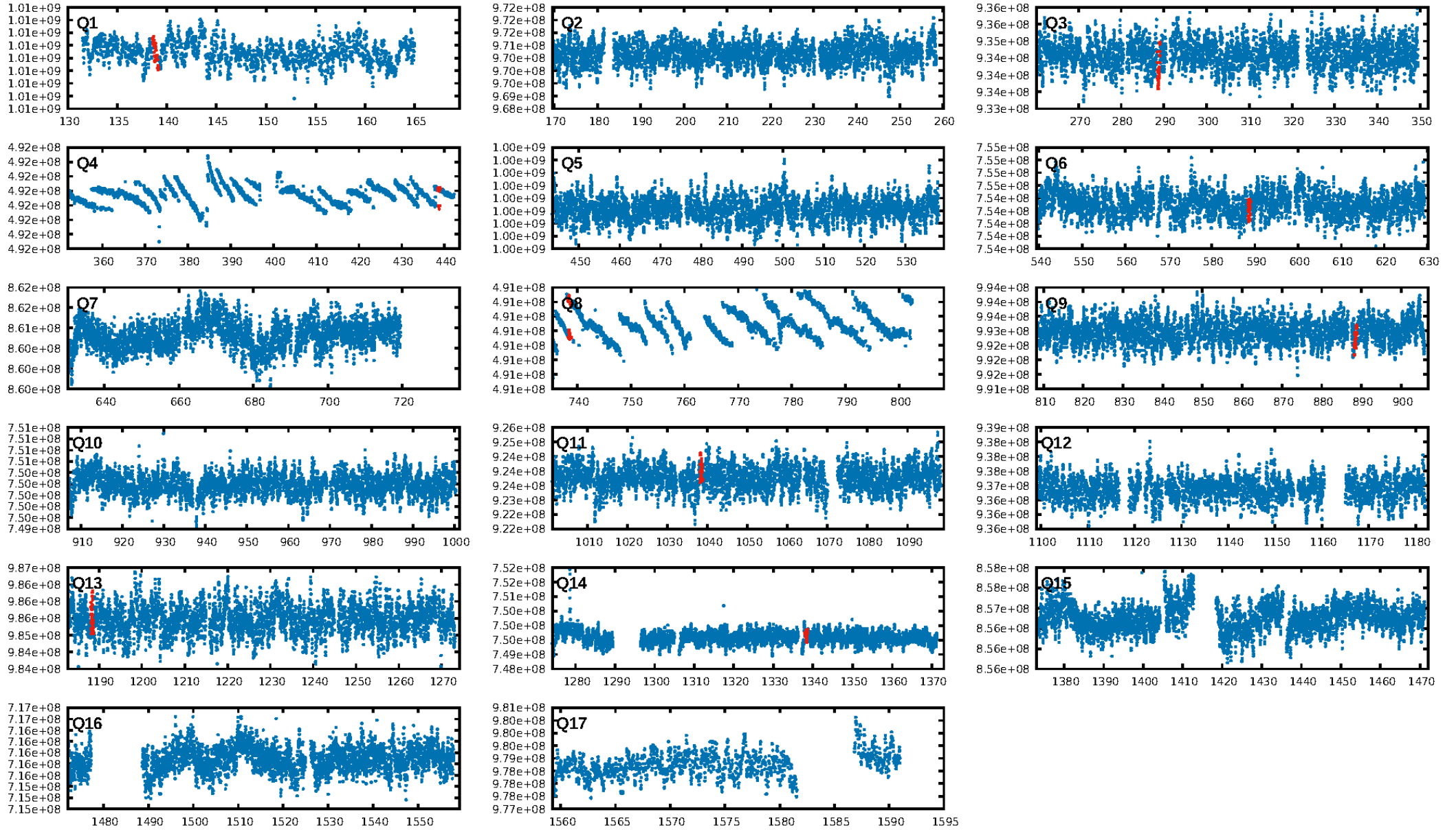
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [32.93σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 89.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: -2.25
Centroid-sig: 2.9%
Centroid-so: 3.458 arcsec [1.90σ]
OotOffset-rm: 1.905 arcsec [1.48σ]
KicOffset-rm: 2.063 arcsec [1.62σ]
OotOffset-st: 1/1/2/2 [6]
KicOffset-st: 1/1/2/2 [6]
DiffImageQuality-fgm: 0.33 [2/6]
DiffImageOverlap-fno: 0.17 [1/6]

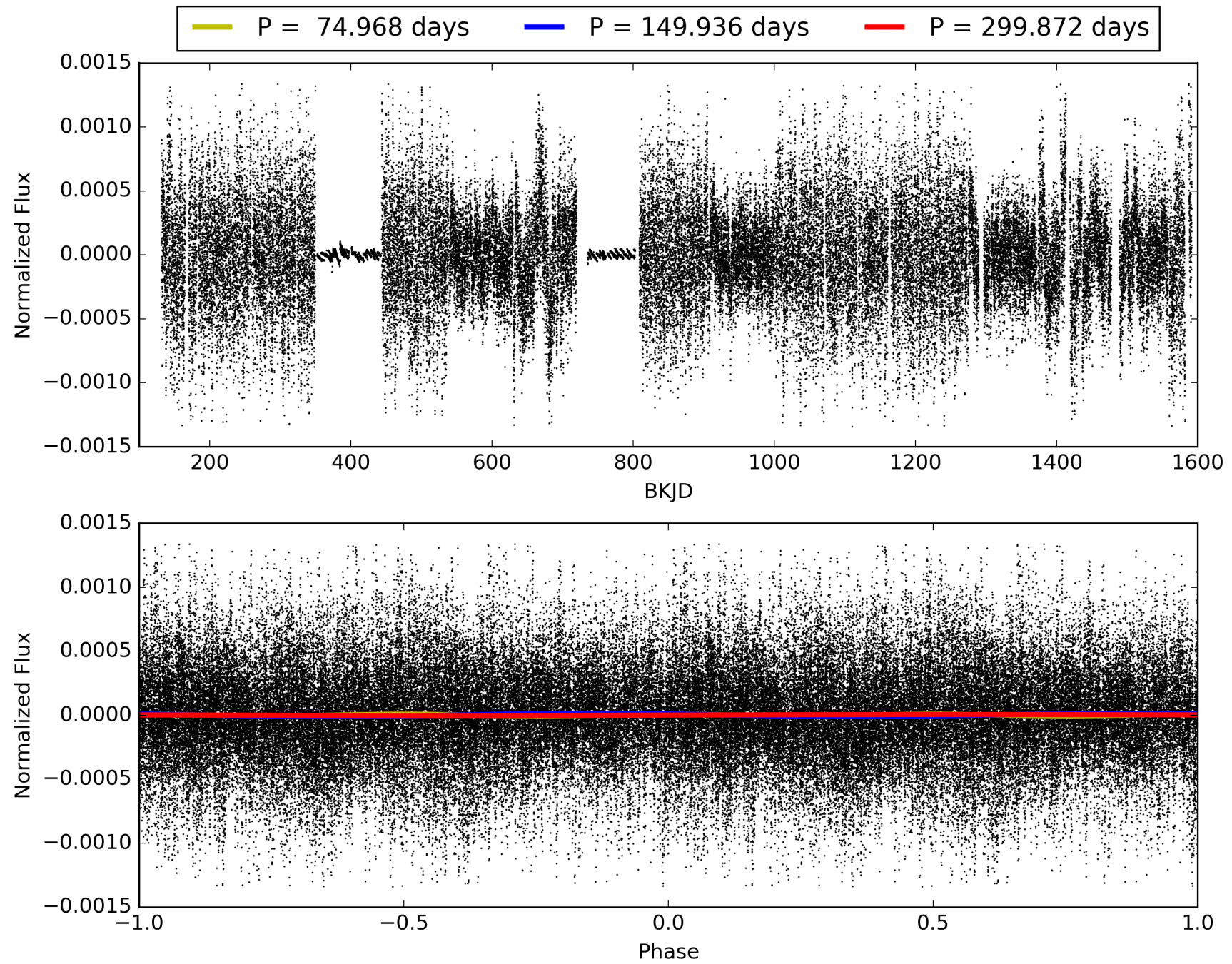
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:46:42 Z

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

TCE 007950550-08, PDC Light Curves

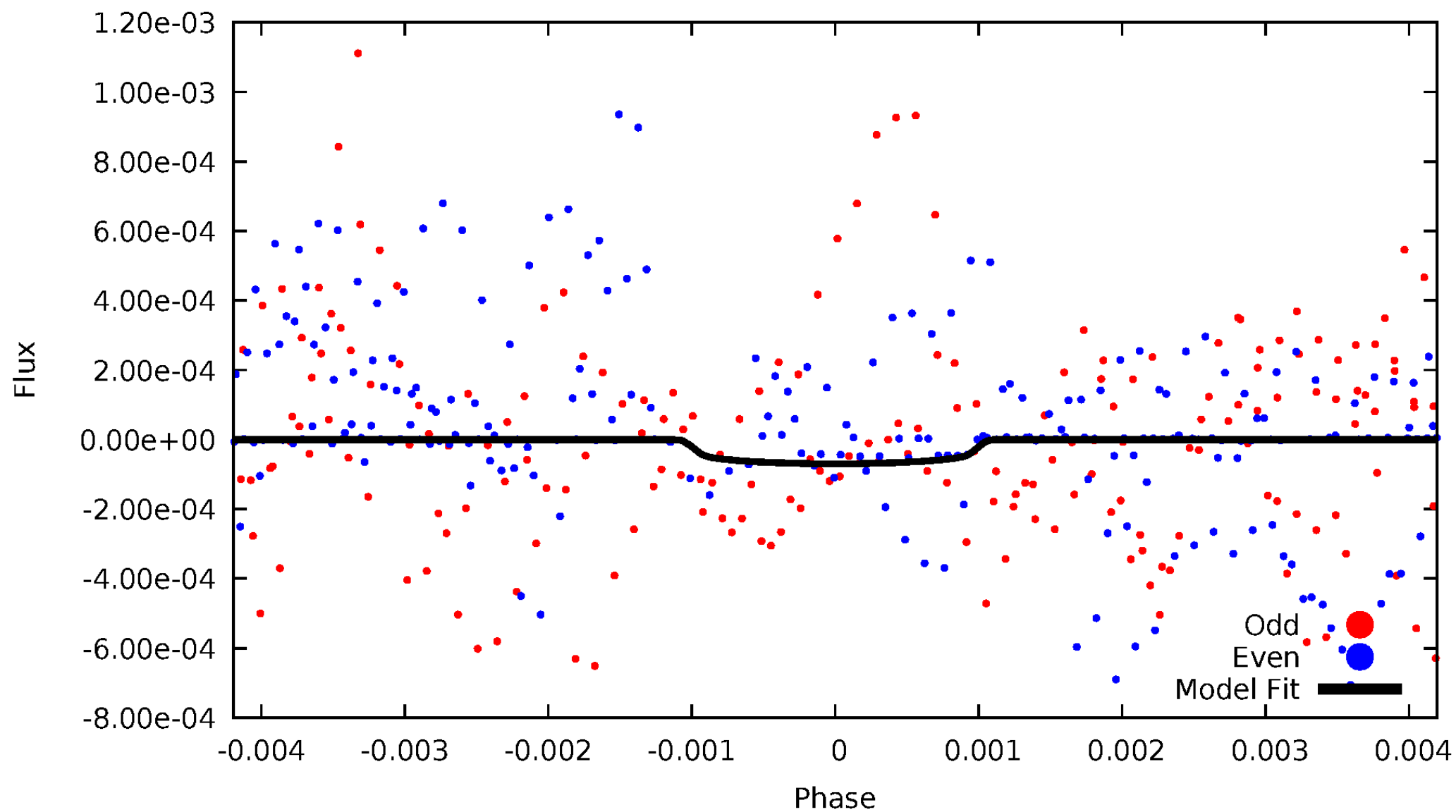


TCE 007950550-08



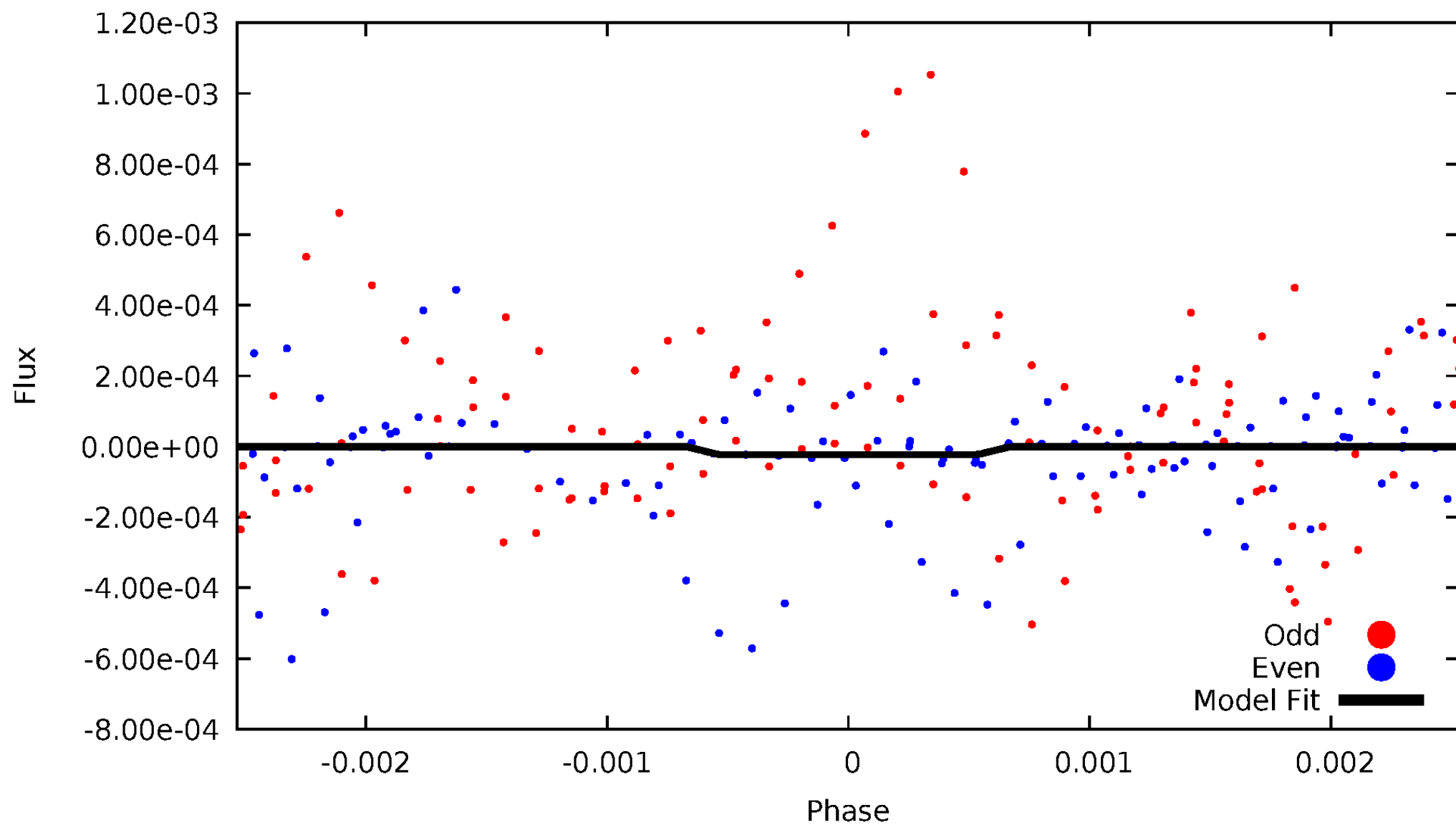
DV Odd/Even

TCE 007950550-08



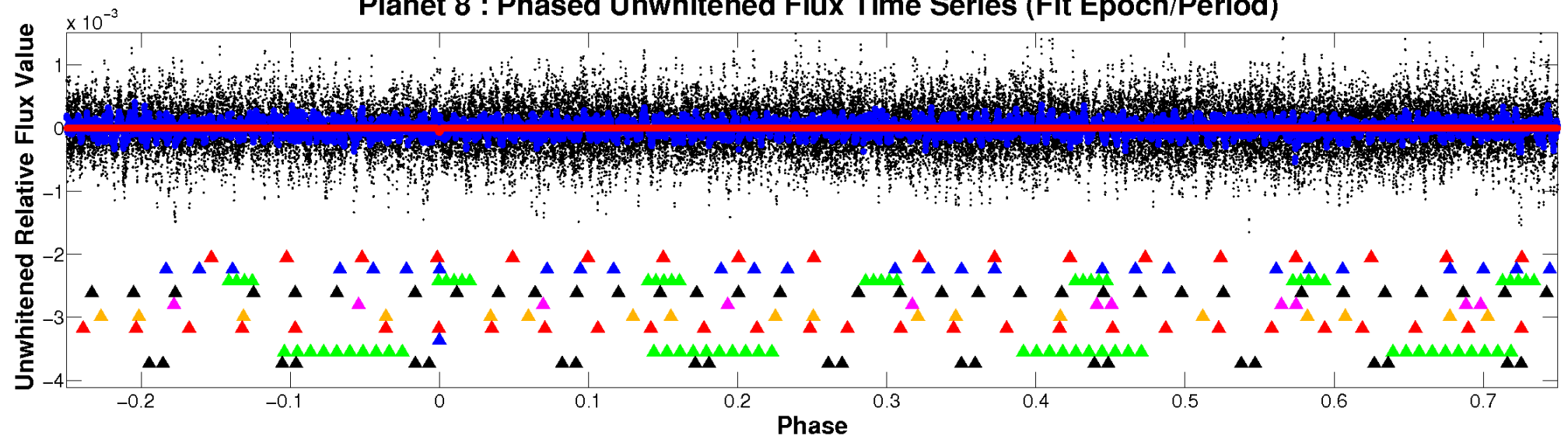
ALT Odd/Even

TCE 007950550-08

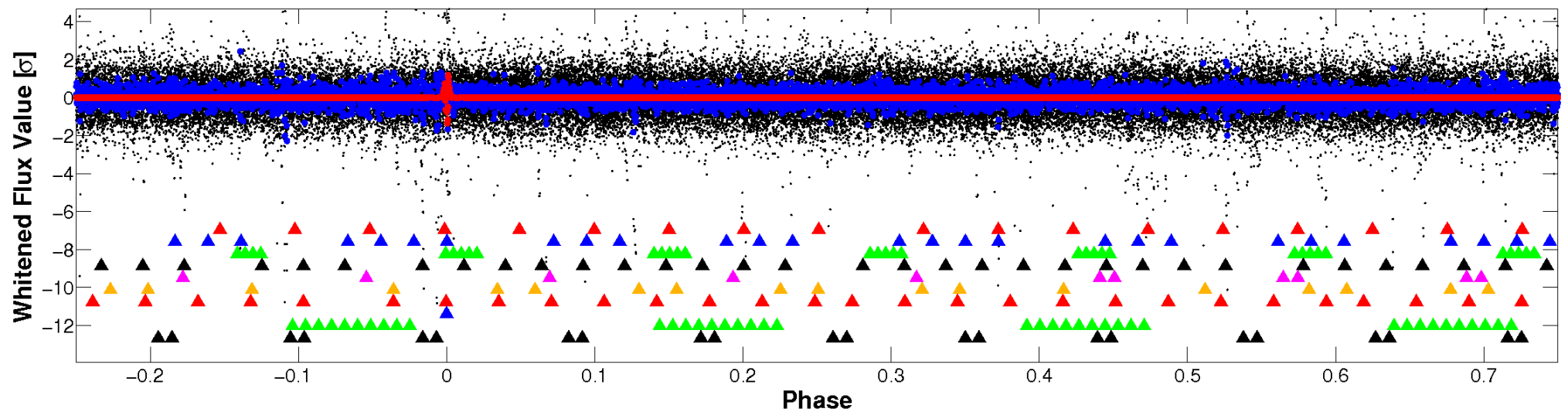


Non-Whitened Vs. Whitened Light Curve

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

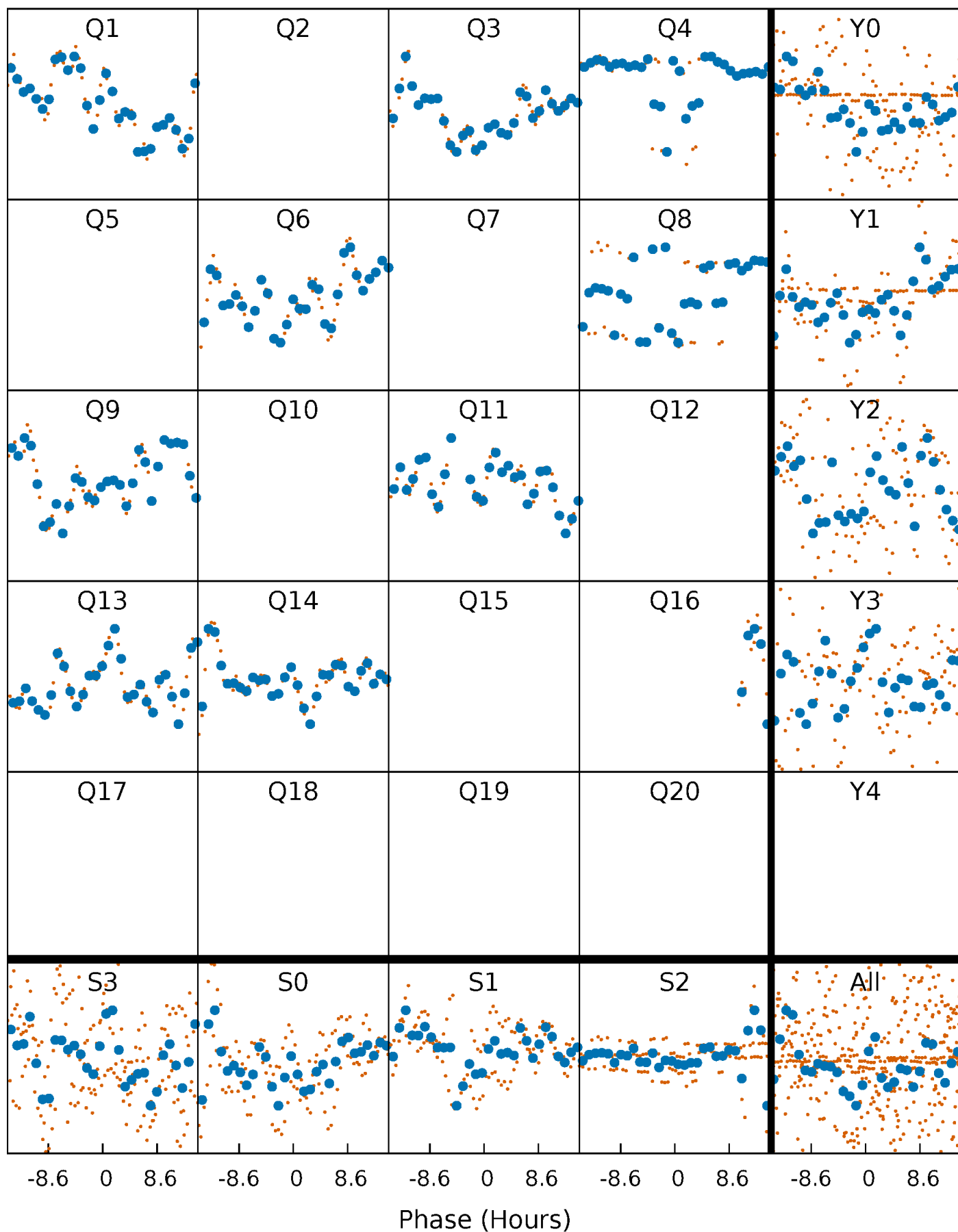


Planet 8 : Phased Whitened Flux Time Series (Fit Epoch/Period)



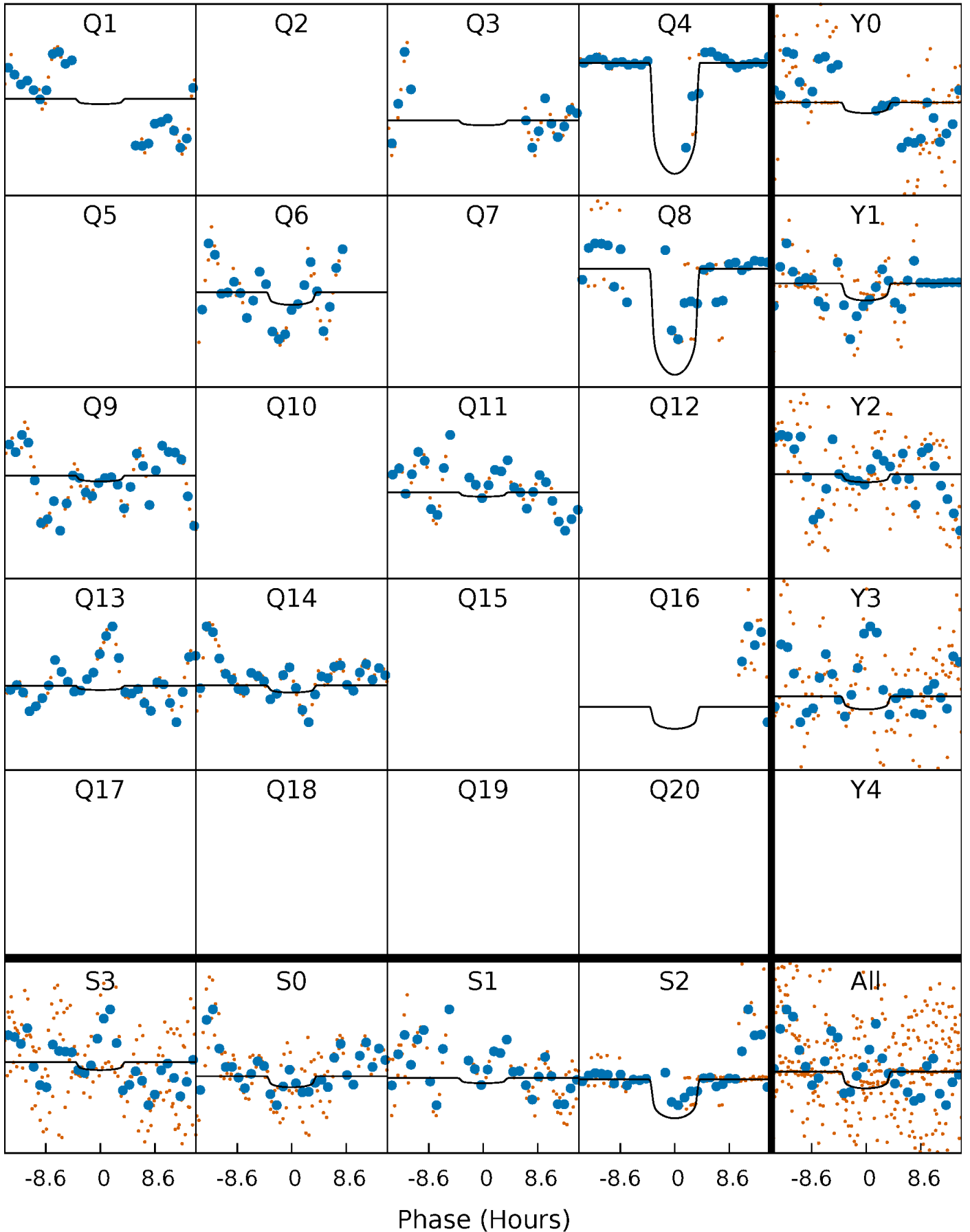
PDC Quarter-Phased Transit Curves

TCE 007950550-08 P=149.936248 Days $T_0=138.841227$ (BKJD)



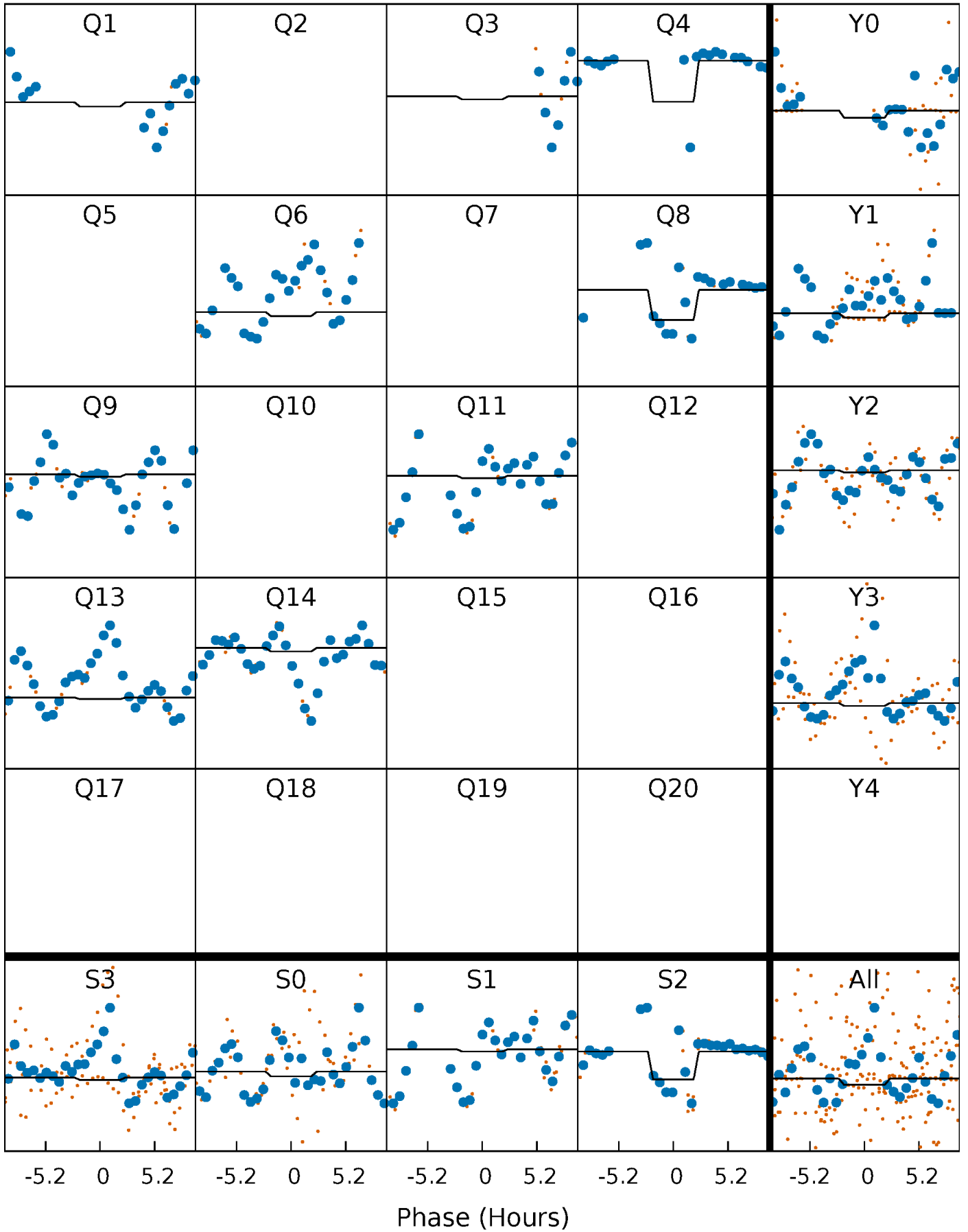
DV Quarter-Phased Transit Curves

TCE 007950550-08 P=149.936248 Days $T_0=138.841227$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

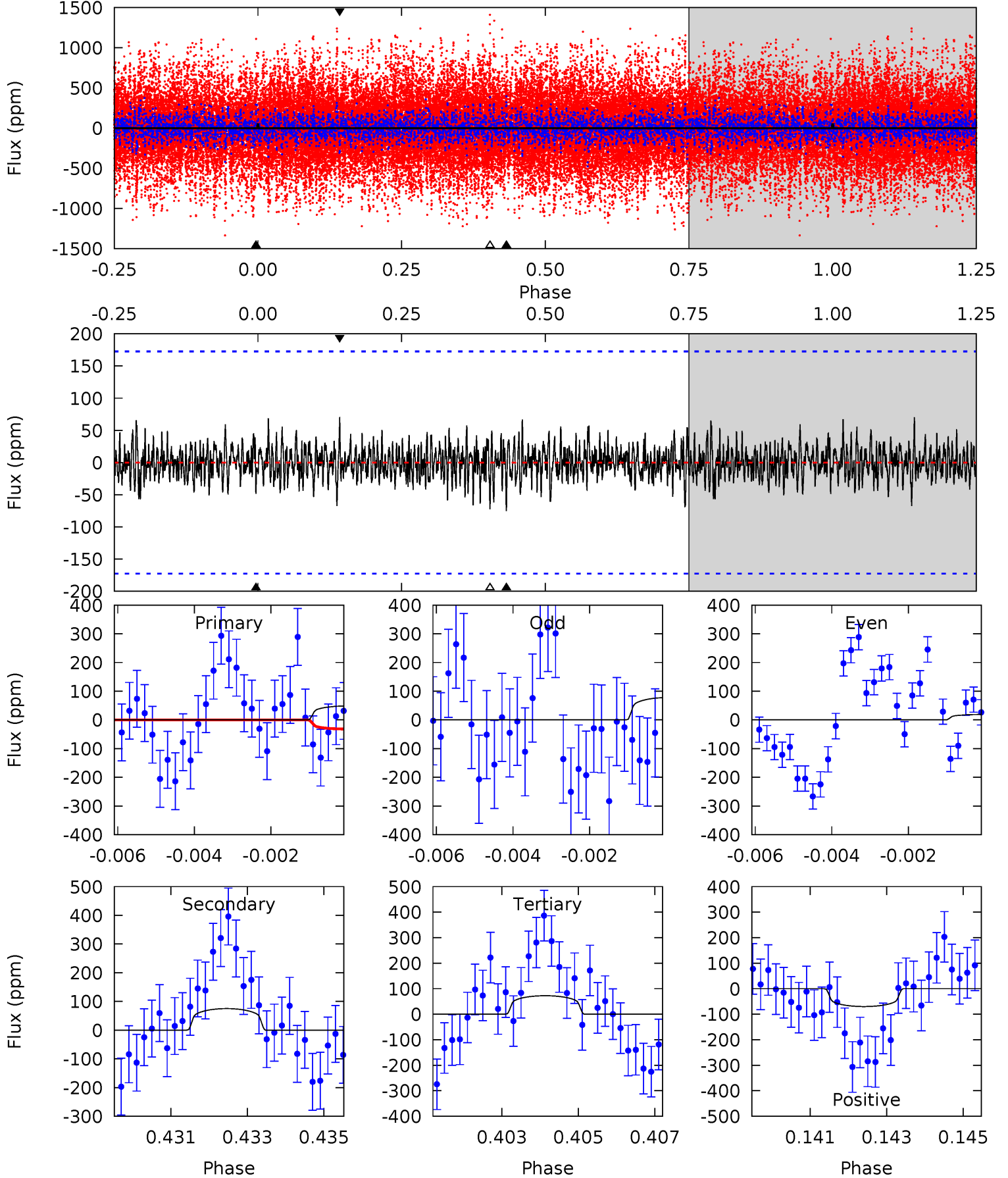
TCE 007950550-08 P=149.930909 Days $T_0=138.911384$ (BKJD)



DV Model-Shift Uniqueness Test

007950550-08, P = 149.936248 Days, E = 138.841227 Days

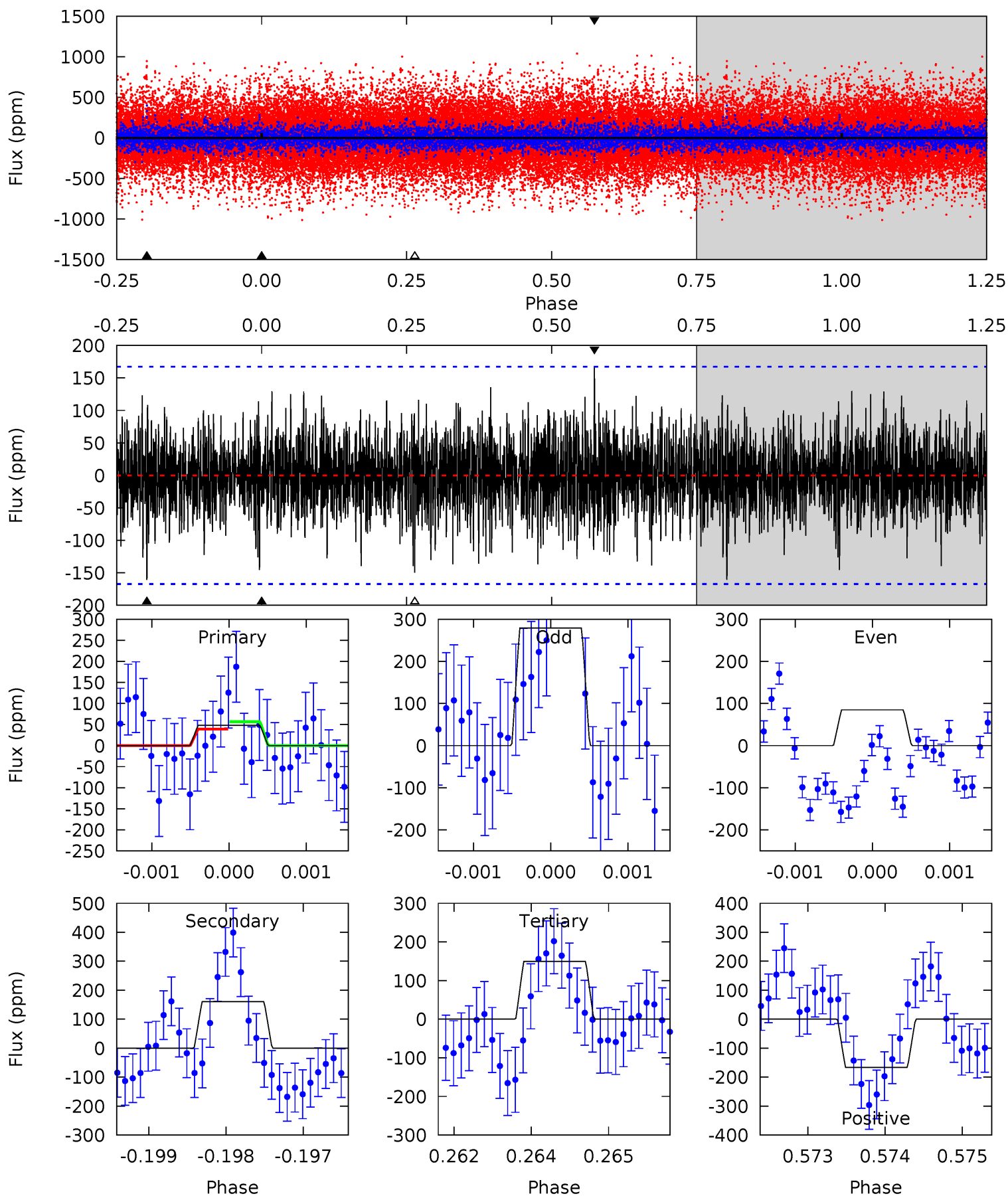
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.49	2.31	2.23	2.15	5.31	3.07	0.67	-0.74	-0.66	0.08	0.16	0.91	-0.98	0.48	1.28



Alt Model-Shift Uniqueness Test

007950550-08, P = 149.930909 Days, E = 138.911384 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.56	5.19	4.83	5.38	5.40	3.21	1.42	-3.27	-3.82	0.36	-0.19	3.21	-2.47	0.51	0.28



Stellar Parameters For KIC 007950550

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4929^{+38}_{-135}	$2.688^{+0.030}_{-0.030}$	$-0.200^{+0.100}_{-0.150}$	$10.657^{+1.098}_{-2.562}$	$2.022^{+0.770}_{-0.847}$	$0.002^{+0.001}_{-0.000}$
	+1%/-3%	+1%/-1%	+50%/-75%	+10%/-24%	+38%/-42%	+34%/-9%
Source	PHO55	AST55	SPE55	DSEP		

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

Secondary Eclipse Parameters for KIC 007950550-08 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-75 ± 32	$11.02^{+1.97}_{-1.95}$	1183^{+29}_{-36}	4748^{+530}_{-561}	171^{+111}_{-81}
Alt.	-161 ± 31	$5.56^{+1.68}_{-1.69}$	1186^{+27}_{-38}	8031^{+2169}_{-1123}	1408^{+1406}_{-578}

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

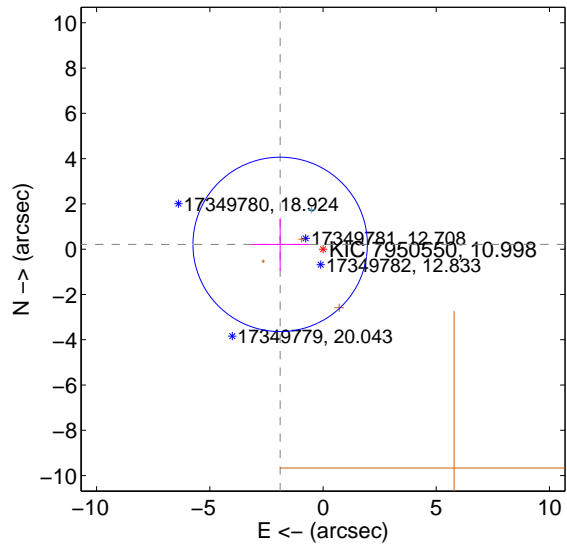
Supplemental centroid analysis for 007950550-08. **Kepler magnitude: 11.00.** Transit SNR 16.46

There are 2 quarters with good PRF difference image offsets

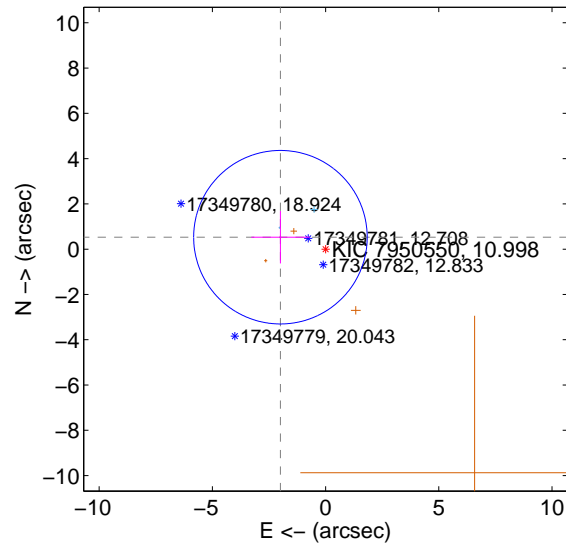
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.905 ± 1.284	1.48	1.894 ± 1.285	0.211 ± 1.159
PRF-fit source offset from KIC position	2.063 ± 1.277	1.62	1.994 ± 1.285	0.529 ± 1.159
photometric centroid source offset	3.46 ± 1.82	1.90	-3.38 ± 1.83	0.75 ± 1.44

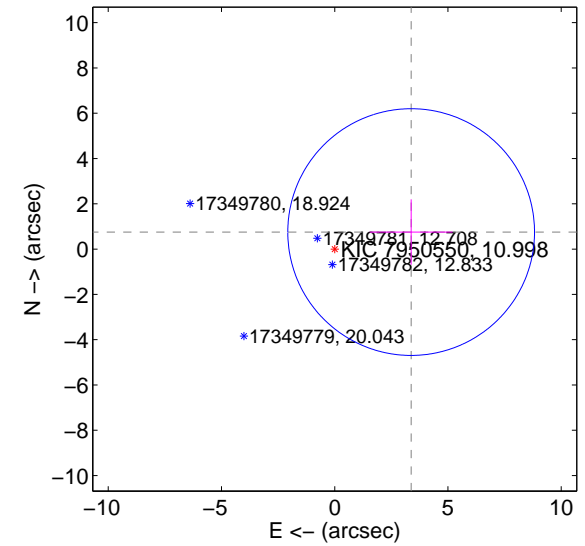
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

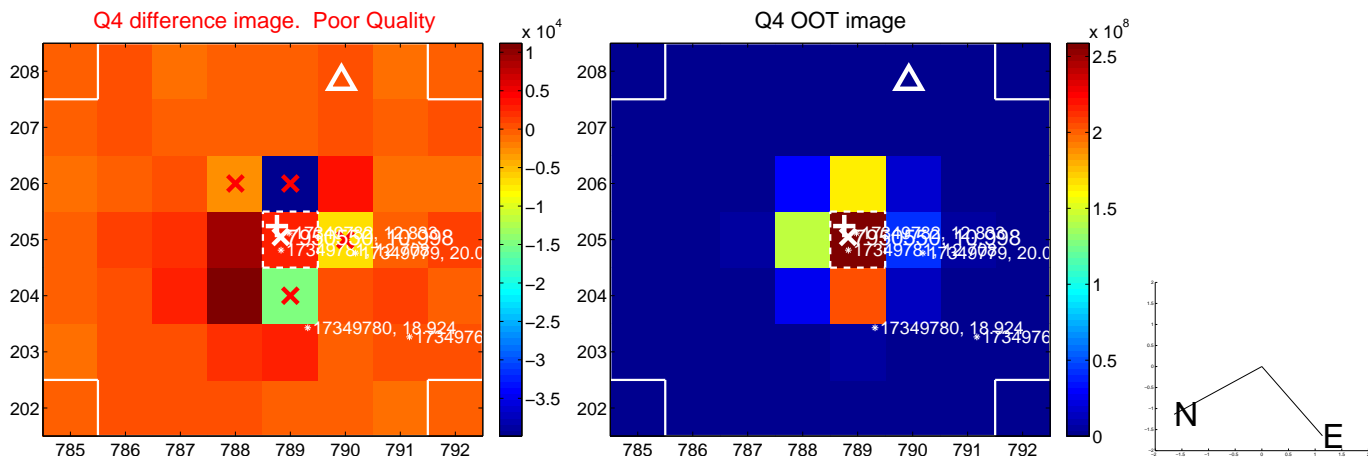
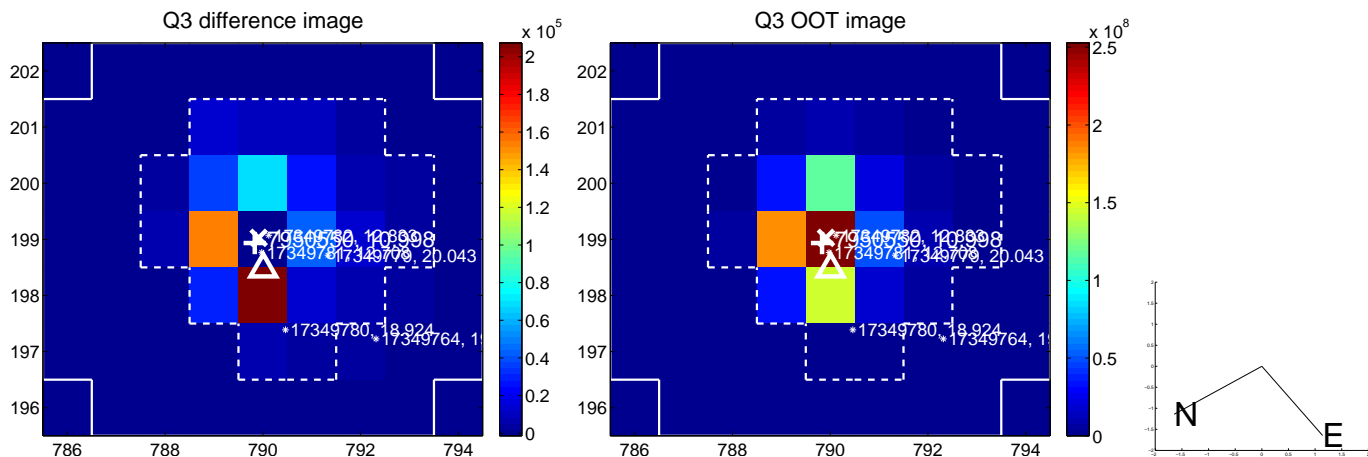
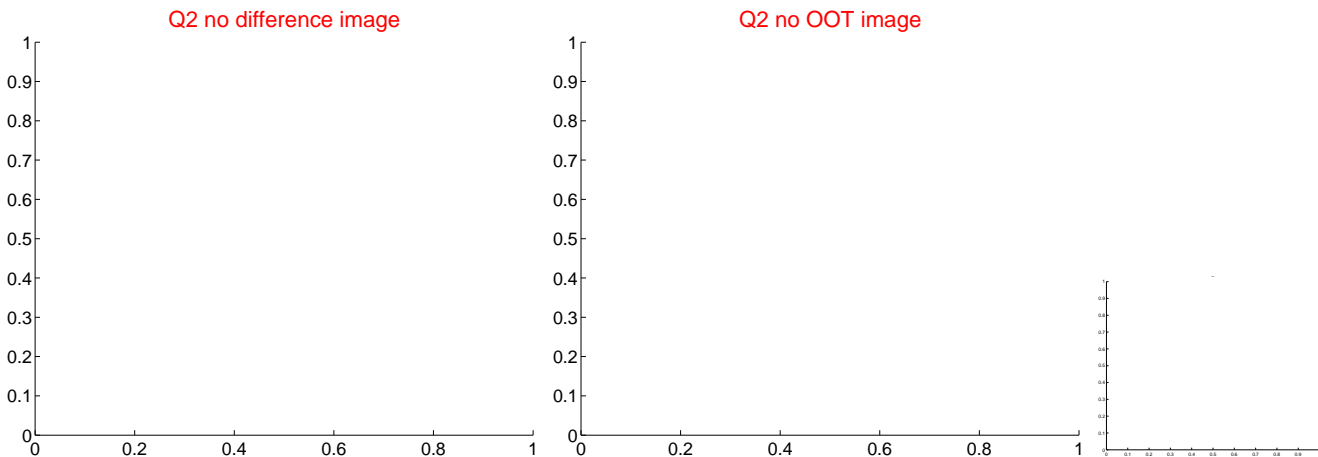
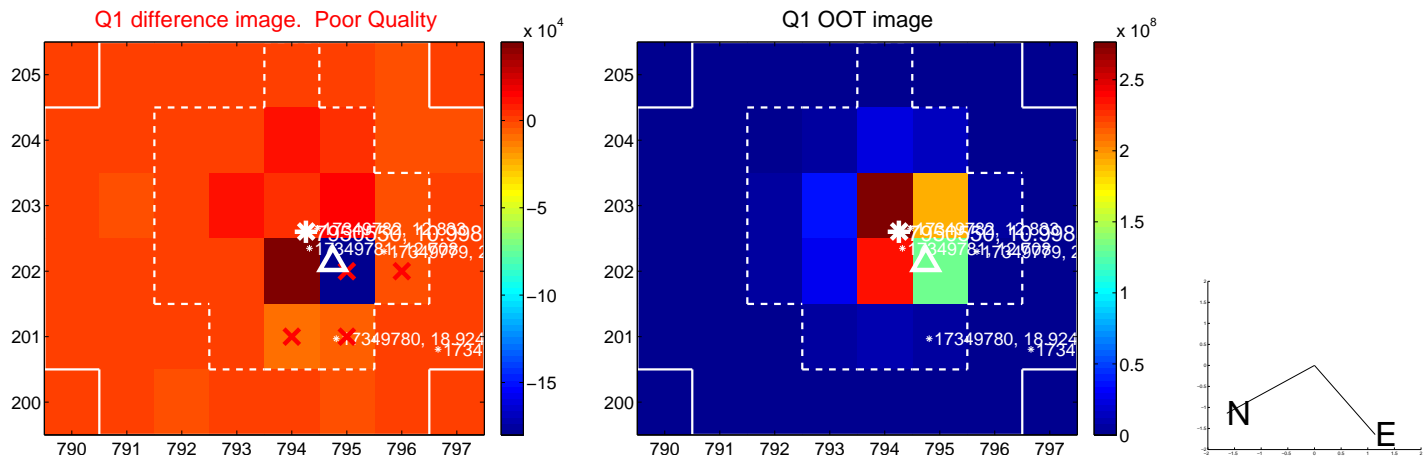


offset from photometric centroids

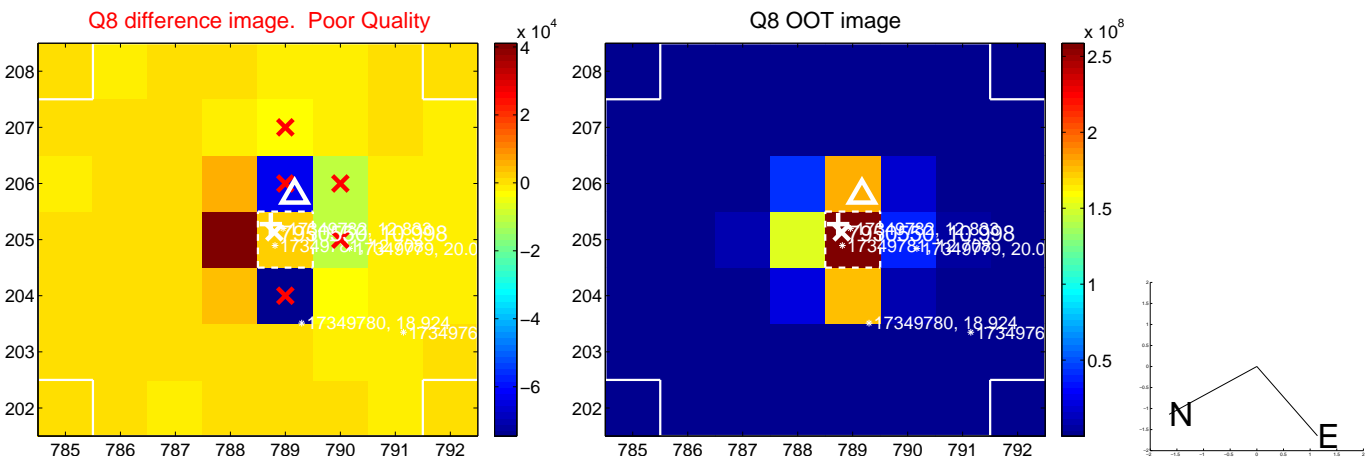
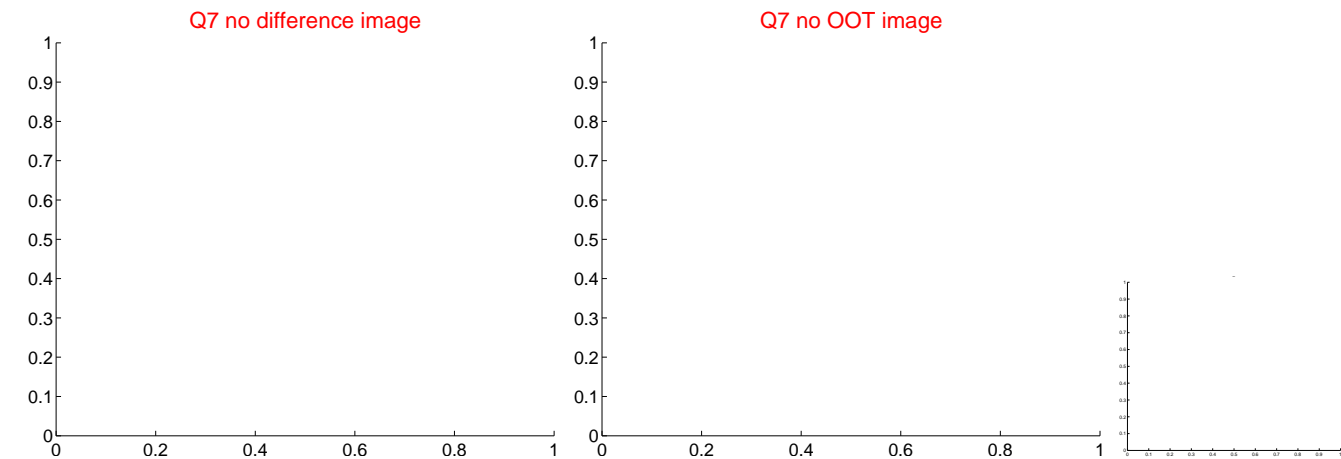
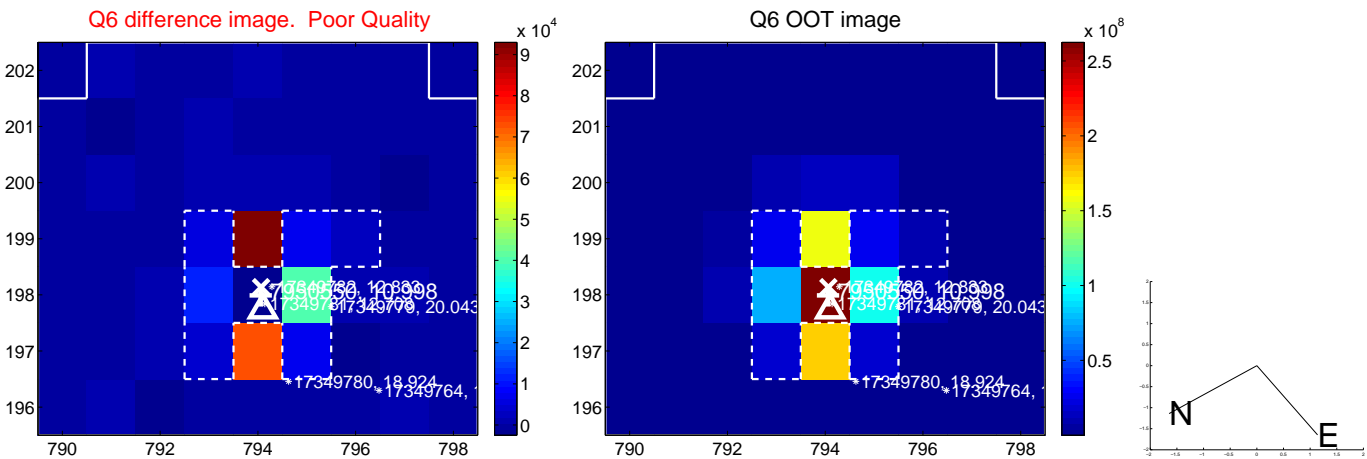


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

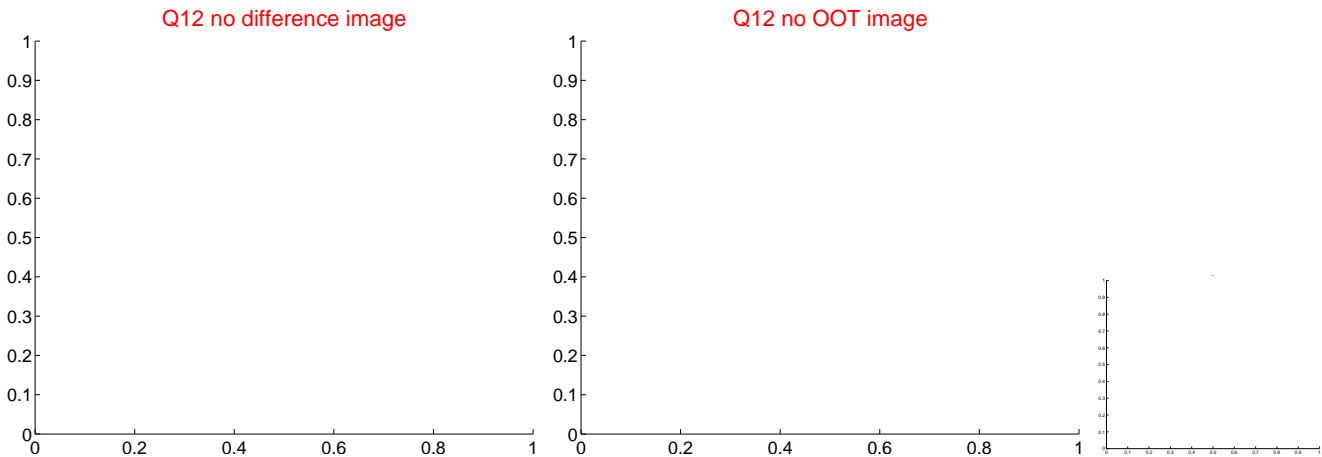
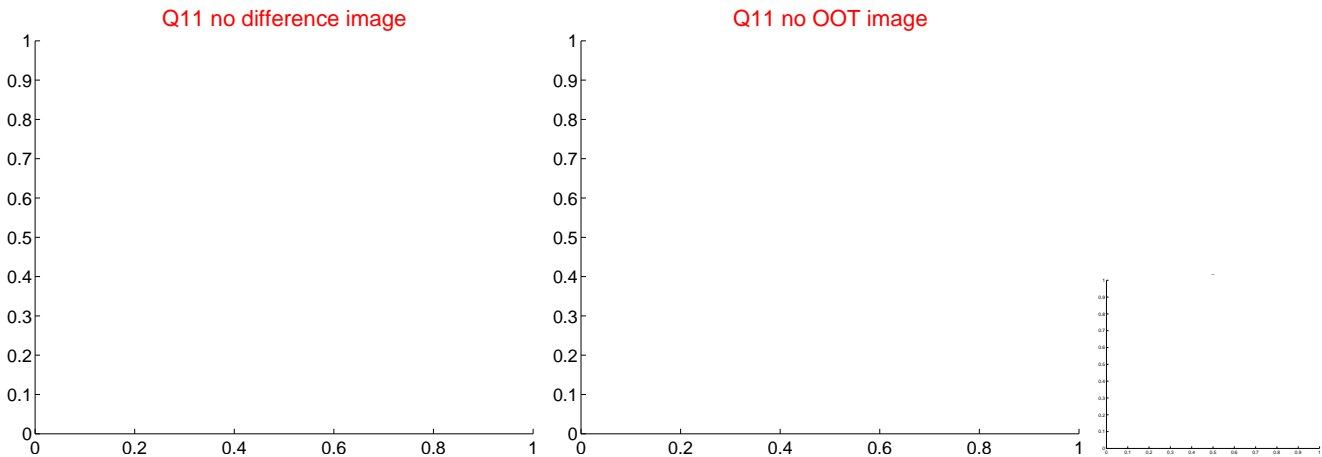
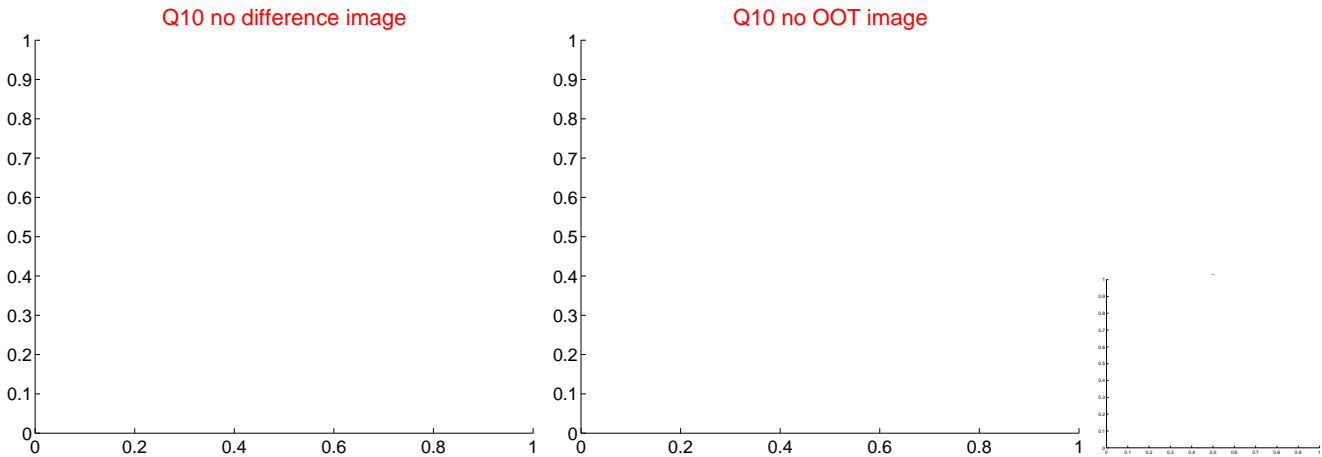
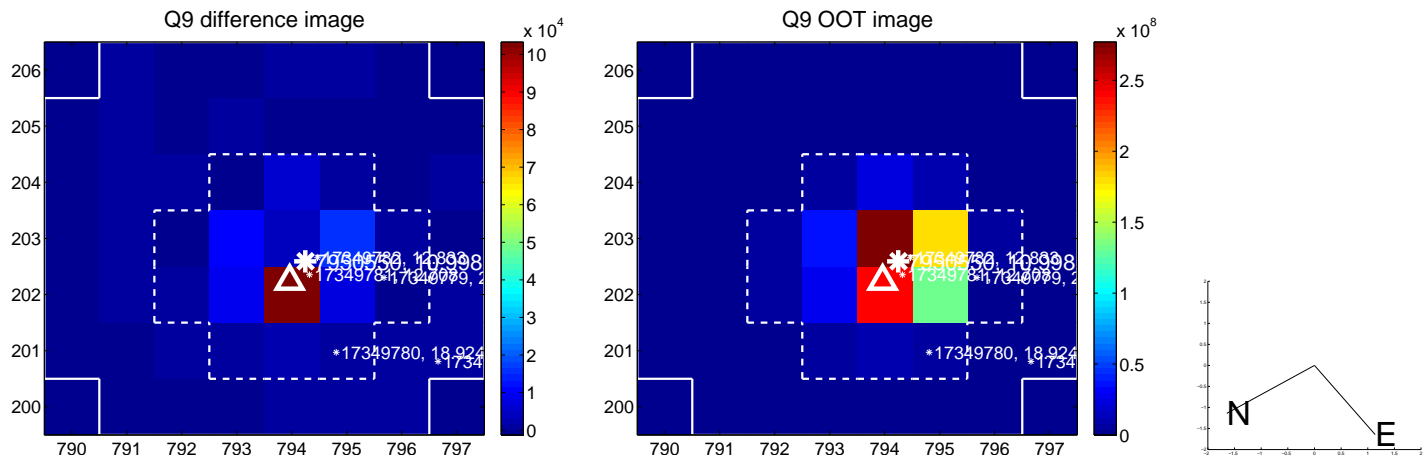
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



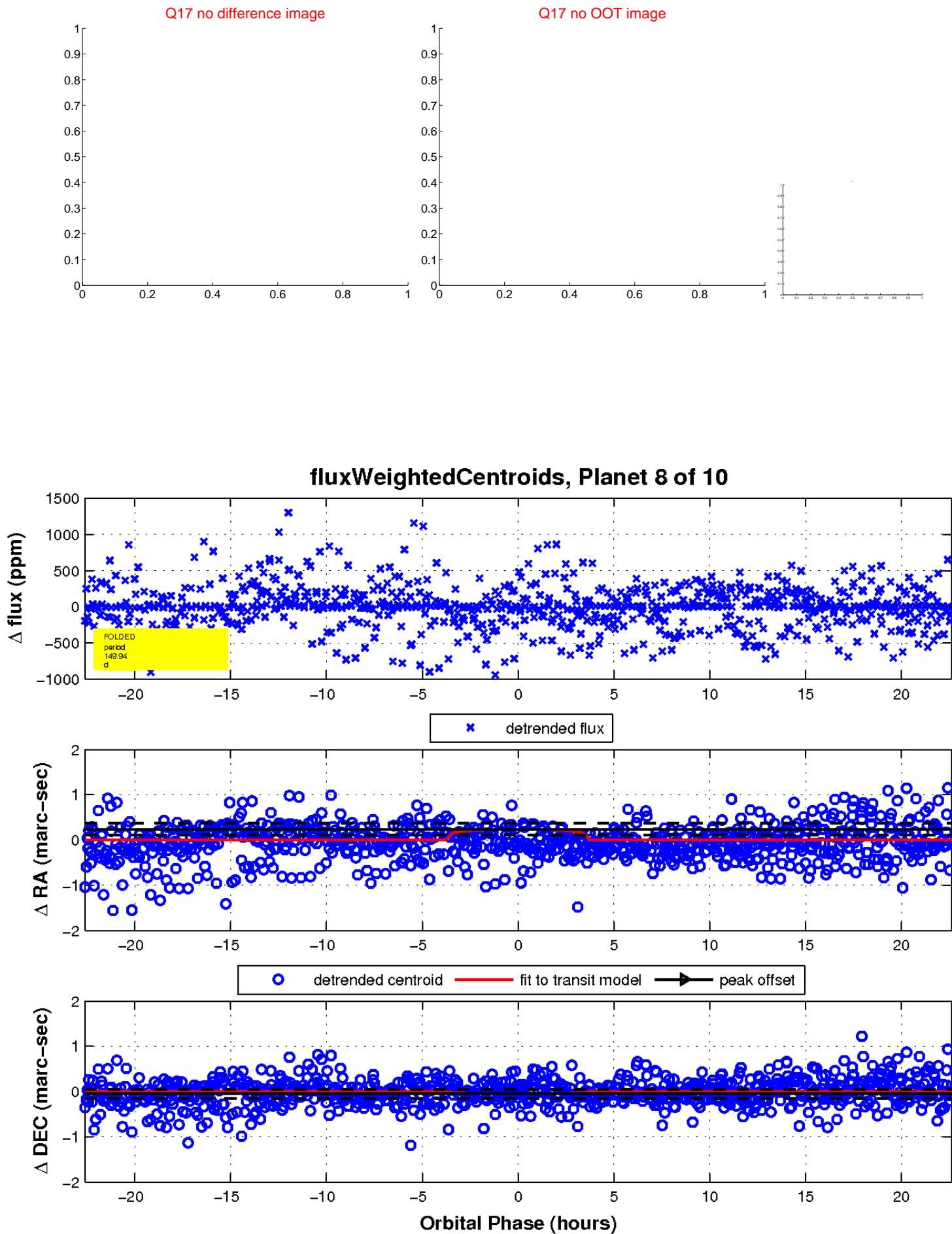
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



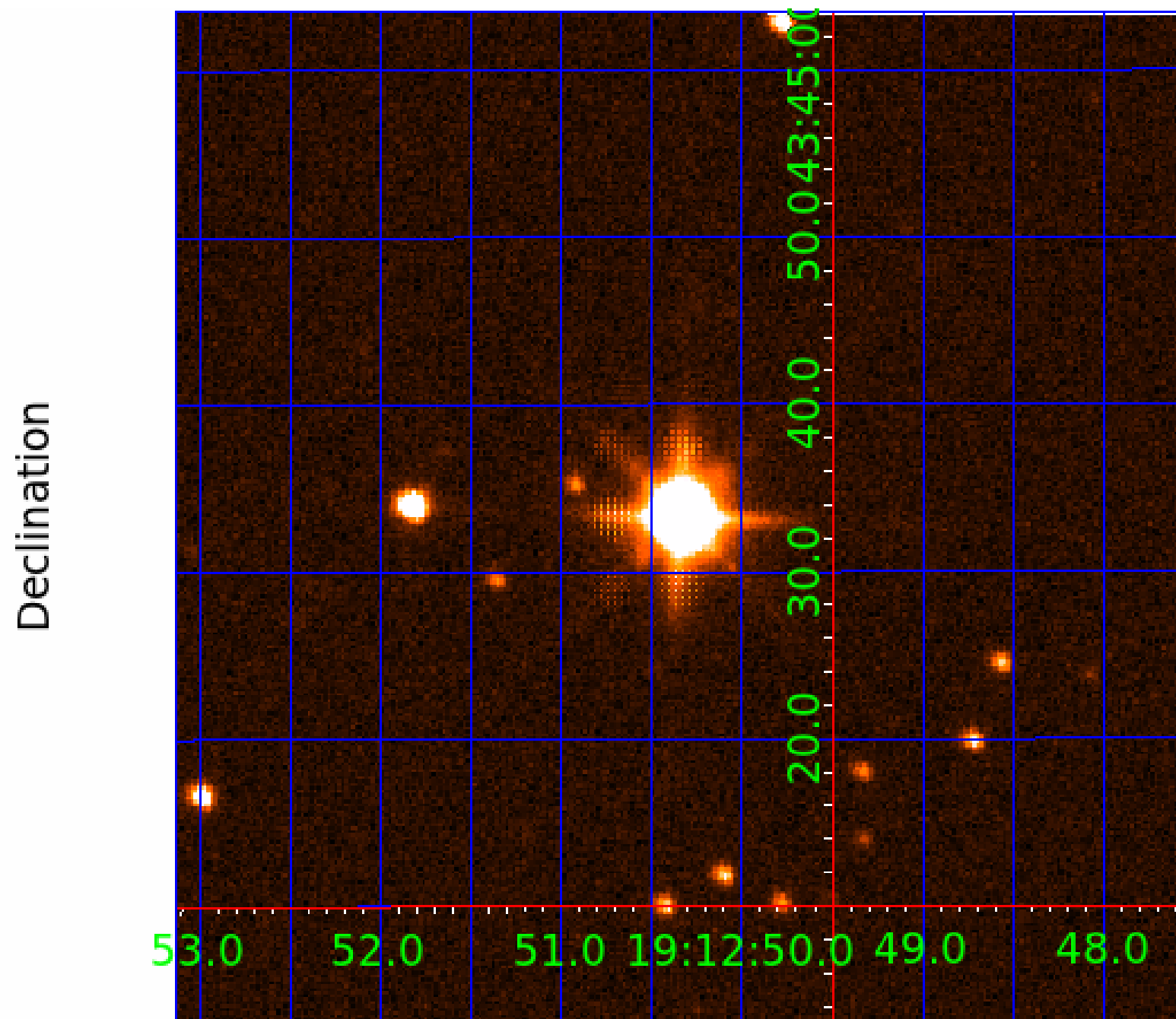
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



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})
007950550-01	OBS	No	78.754453	187.099506	53.7	1.615	31.6	16.3	10.66	4929	9.55	290.62
007950550-02	OBS	No	55.808550	138.872074	58.3	3.245	15.3	17.3	10.66	4929	9.37	459.99
007950550-03	OBS	No	42.951829	159.829241	41.0	5.498	15.7	11.4	10.66	4929	8.16	652.20
007950550-04	OBS	No	44.561631	161.040643	52.2	1.207	15.2	18.4	10.66	4929	9.53	620.97
007950550-05	OBS	No	131.379320	242.059586	29.5	11.224	15.0	7.7	10.66	4929	6.93	146.89
007950550-06	OBS	No	82.129715	143.985409	37.5	16.367	15.4	8.8	10.66	4929	7.65	274.80
007950550-07	OBS	No	51.755812	179.880861	10.9	1.900	14.1	3.5	10.66	4929	3.63	508.64
007950550-08	OBS	No	149.936248	138.841227	69.5	7.544	22.6	16.5	10.66	4929	10.82	123.16
007950550-09	OBS	No	37.154510	135.118424	21.9	8.813	14.3	8.8	10.66	4929	5.95	791.29
007950550-10	OBS	No	68.278848	136.425466	186.5	5.314	12.6	1.4	10.66	4929	16.52	351.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007950550-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-02	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED— HALO_GHOST
007950550-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS— CENT_SATURATED
007950550-06	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT— CENT_SATURATED—HALO_GHOST
007950550-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_SATURATED
007950550-09	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED— HALO_GHOST
007950550-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT— MOD_POS_ALT—CENT_SATURATED

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

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

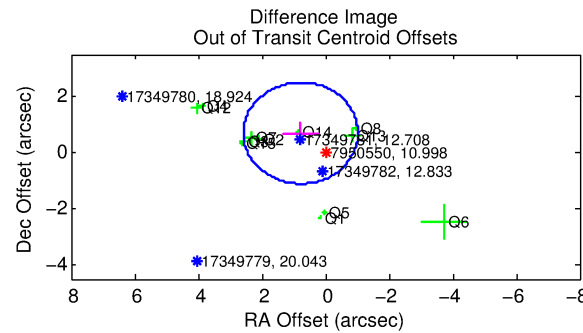
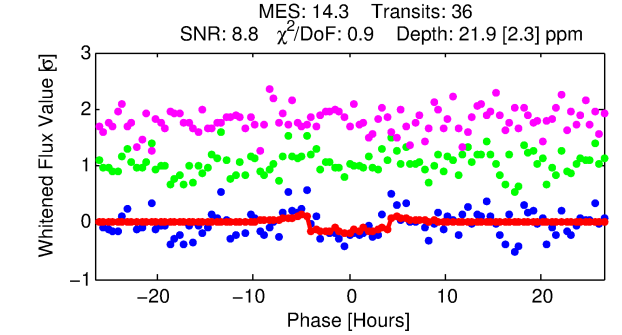
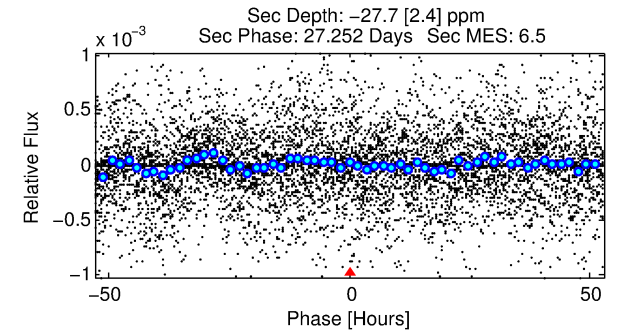
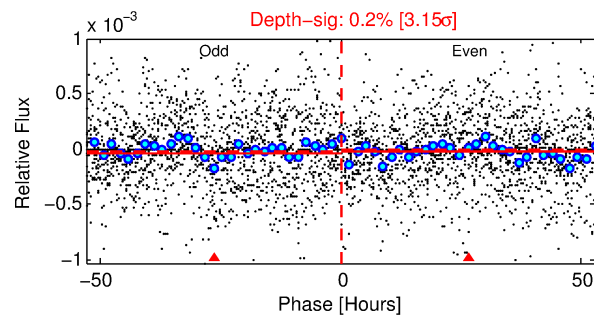
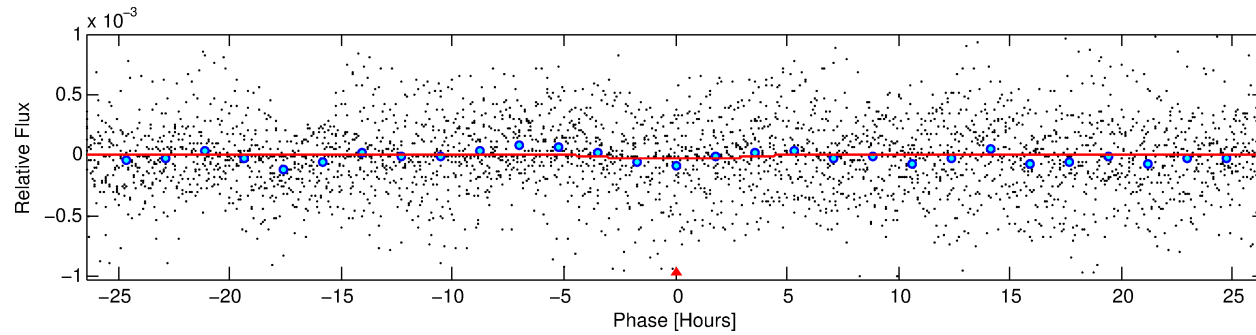
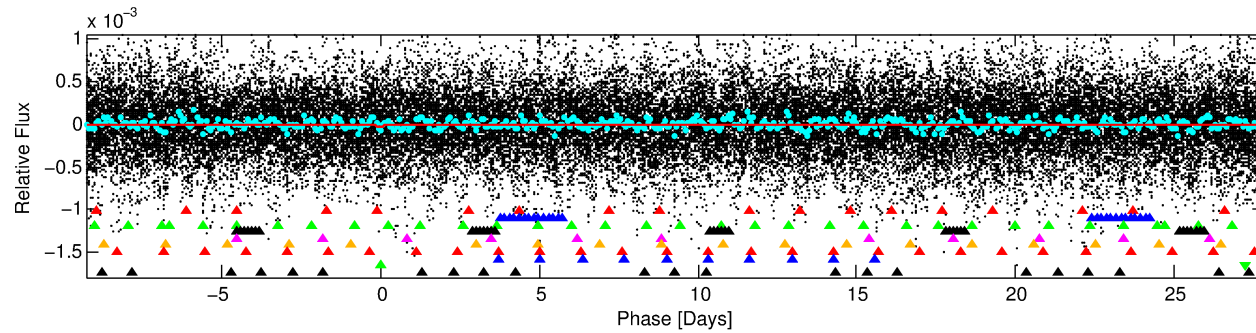
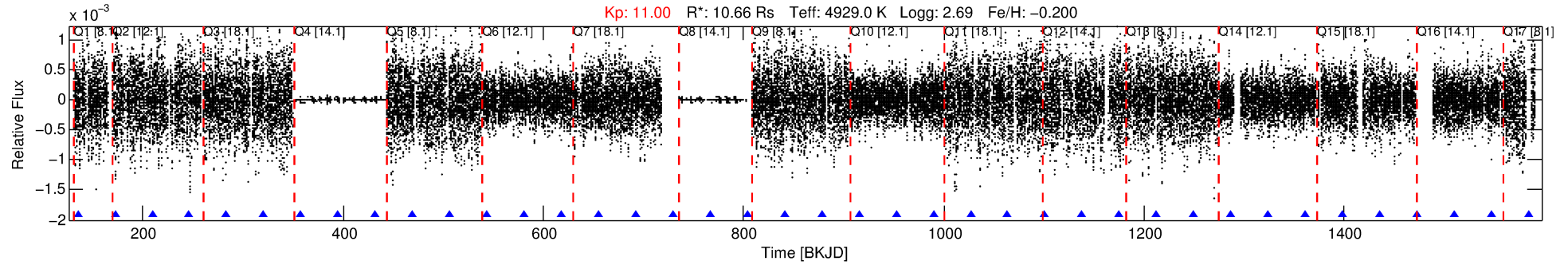
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007950550-09

No Significant Match Found

DV One-Page Summary

KIC: 7950550 Candidate: 9 of 10 Period: 37.155 d



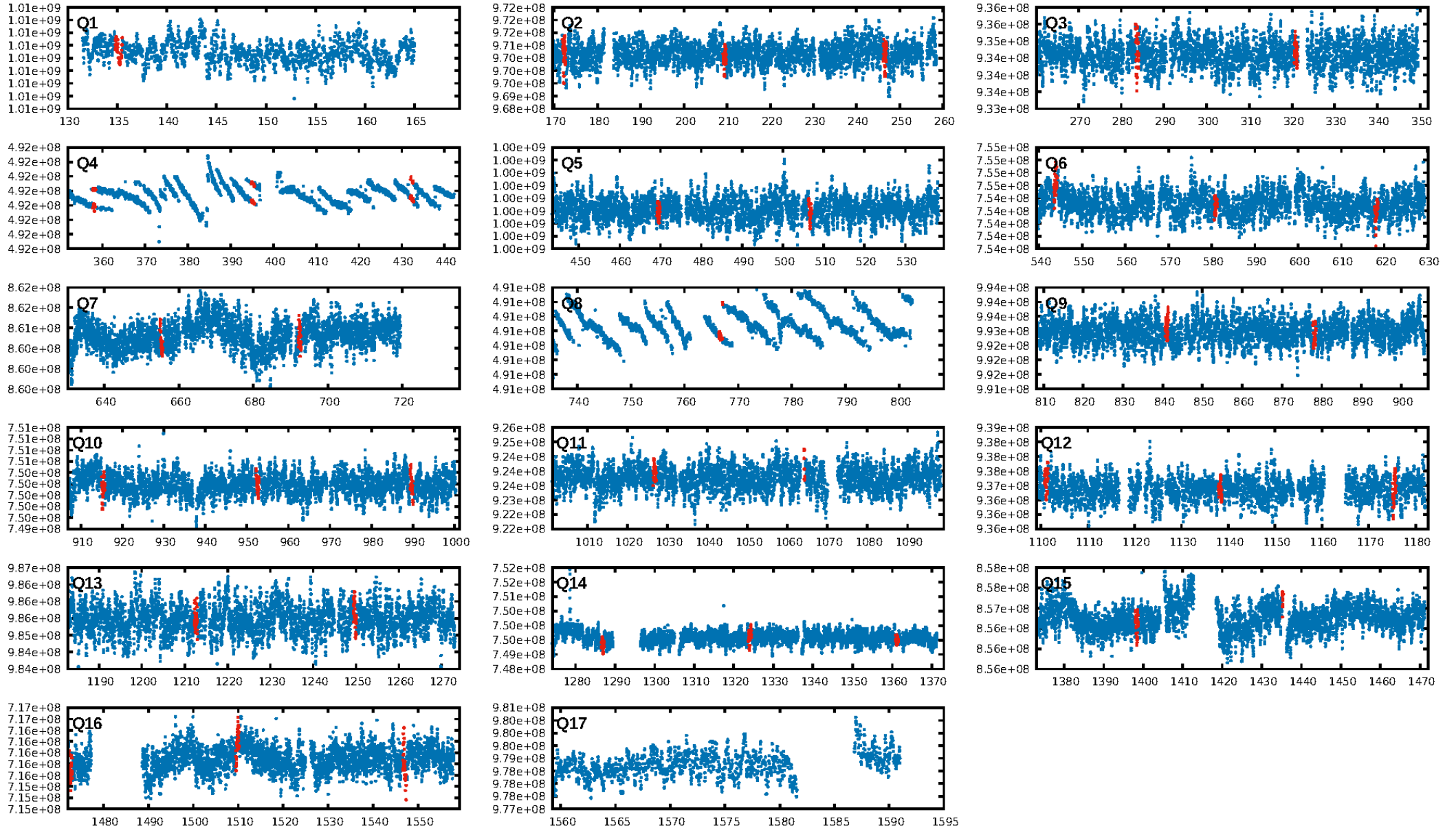
DV Fit Results:

Period = 37.15451 [0.00069] d
Epoch = 135.1184 [0.0080] BKJD
Rp/R* = 0.0051 [0.0009]
a/R* = 15.49 [10.07]
b = 0.88 [0.16]
Seff = 791.29 [157.88]
Teff = 1352 [67] K
Rp = 5.94 [1.74] Re
a = 0.2755 [0.0446] AU
Ag = N/A
Teffp = N/A

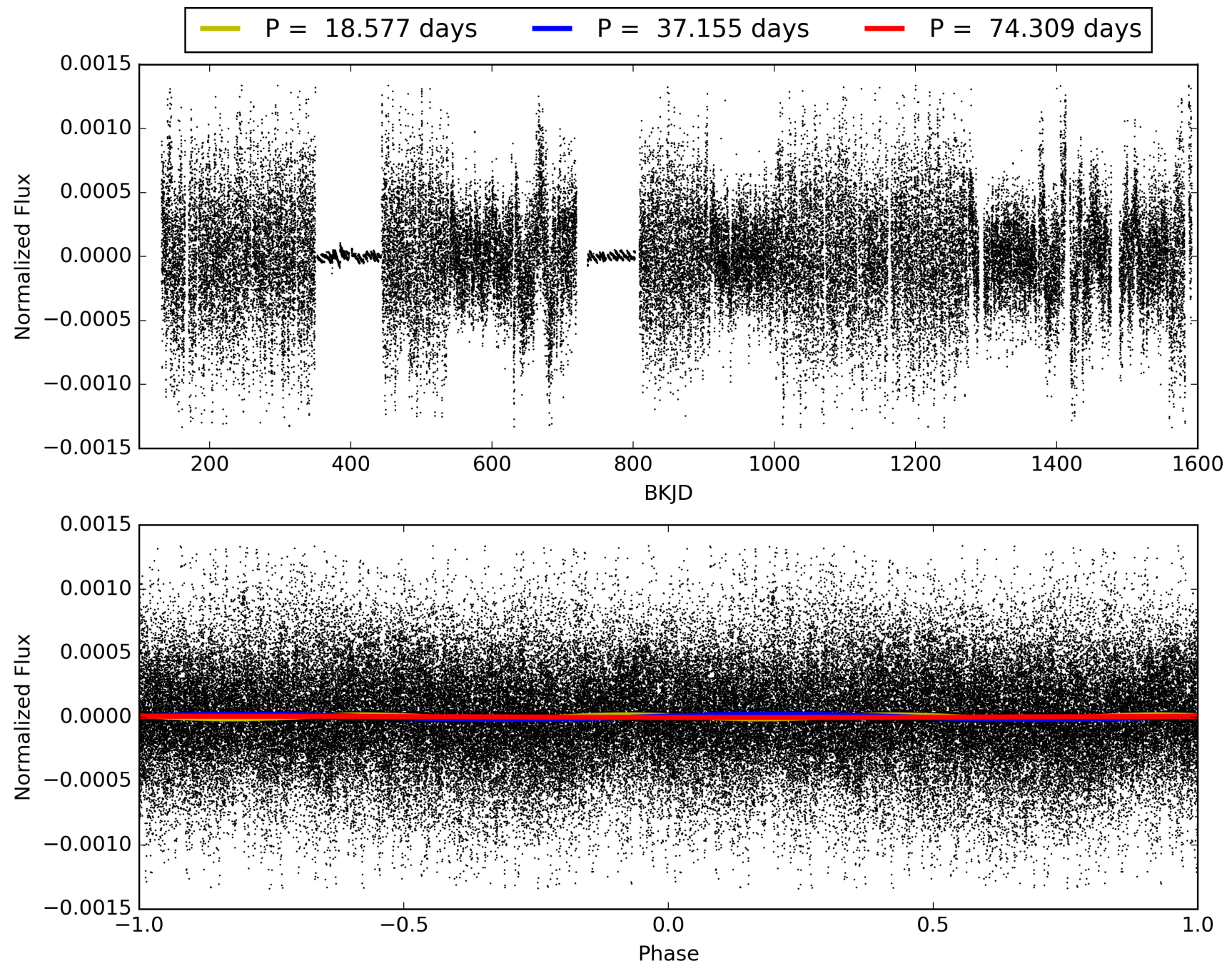
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [13.39 σ]
ModelChiSquare2-sig: 29.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [35/35]
GhostDiagnostic-chr: -0.1048
Centroid-sig: 0.7%
Centroid-so: 5.144 arcsec [1.92 σ]
OotOffset-rm: 1.044 arcsec [1.74 σ]
KicOffset-rm: 1.264 arcsec [1.97 σ]
OotOffset-st: 3/3/3 [12]
KicOffset-st: 3/3/3 [12]
DiffImageQuality-fgm: 0.67 [8/12]
DiffImageOverlap-fno: 0.86 [12/14]

TCE 007950550-09, PDC Light Curves

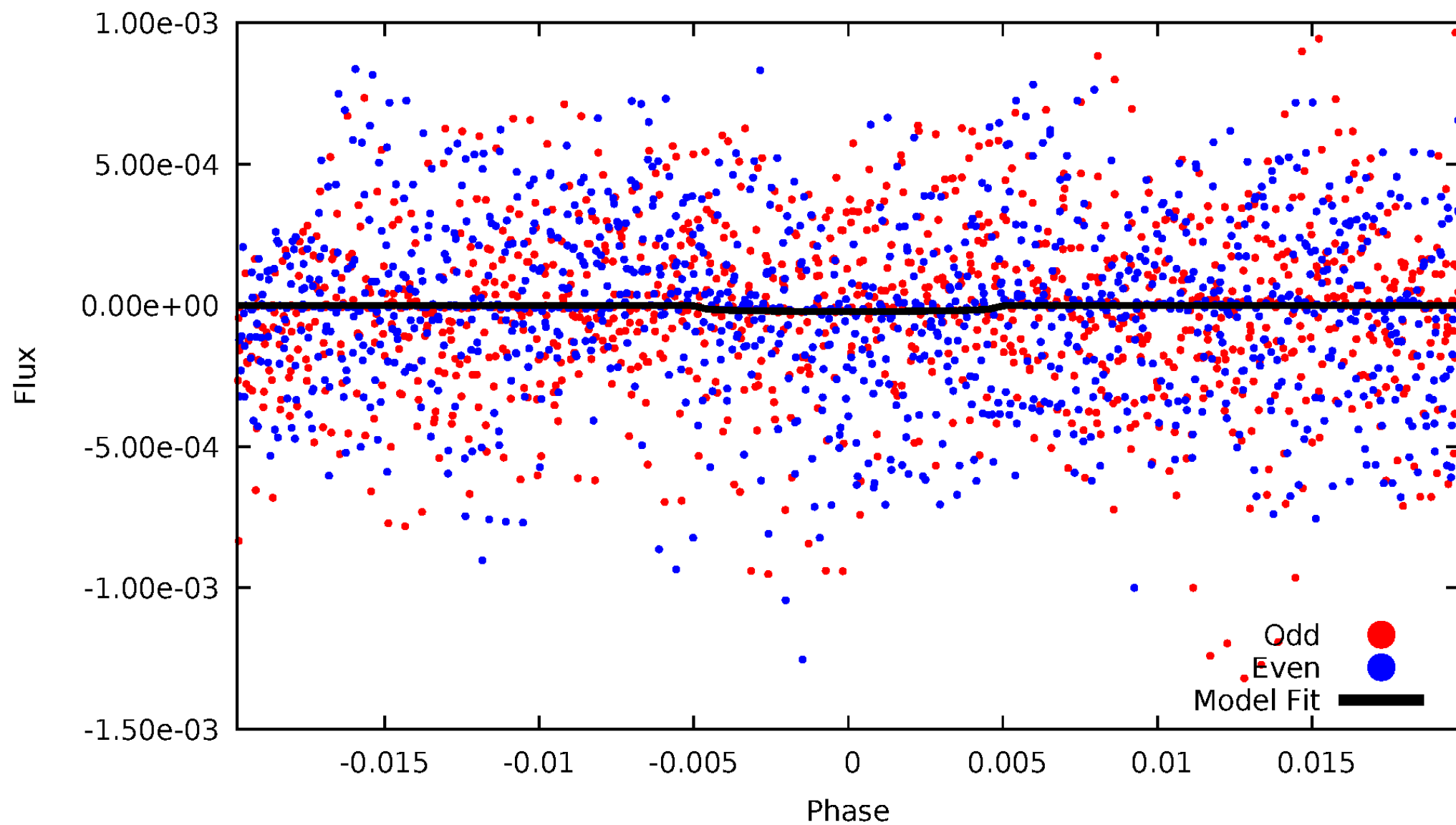


TCE 007950550-09



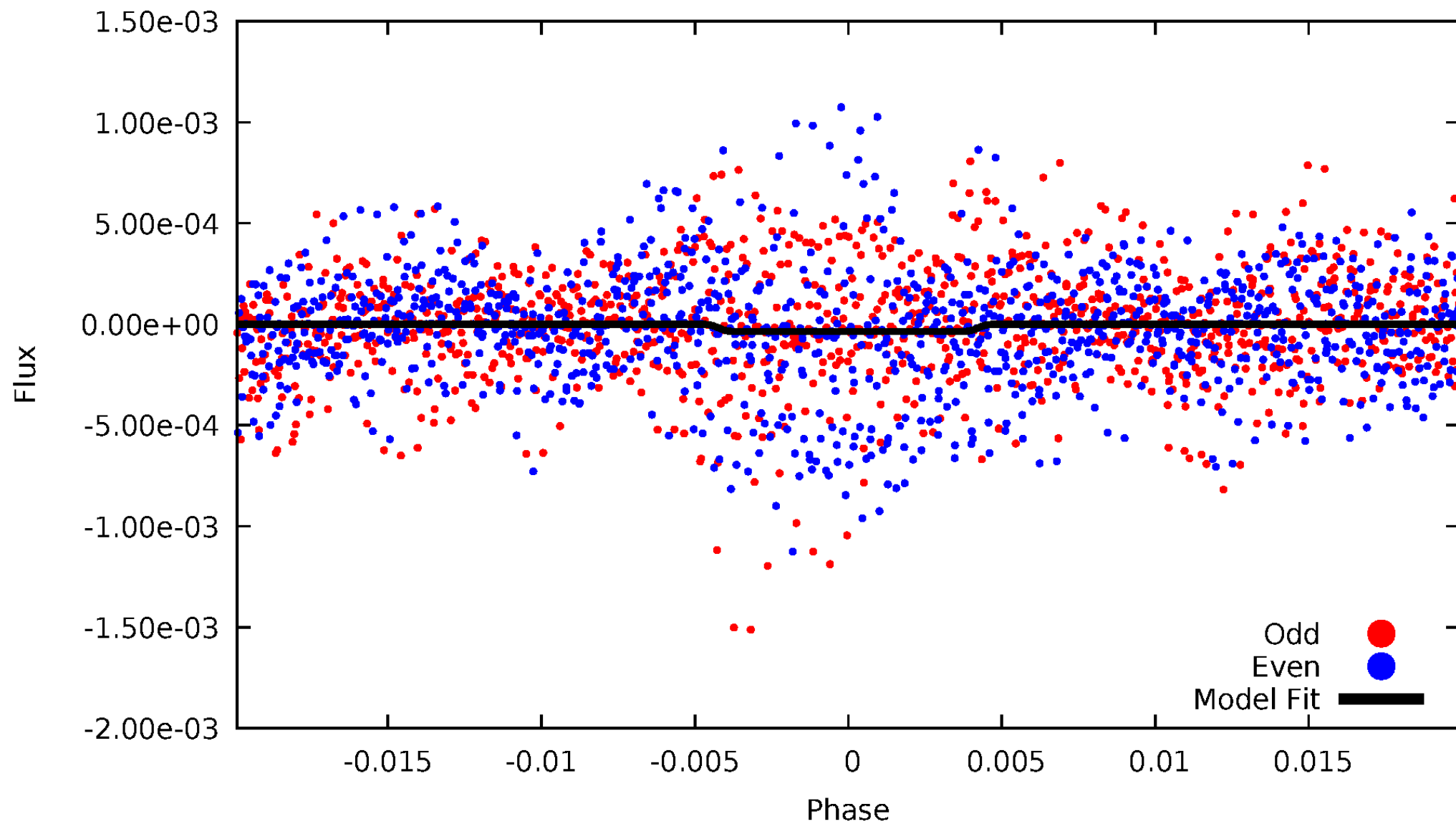
DV Odd/Even

TCE 007950550-09



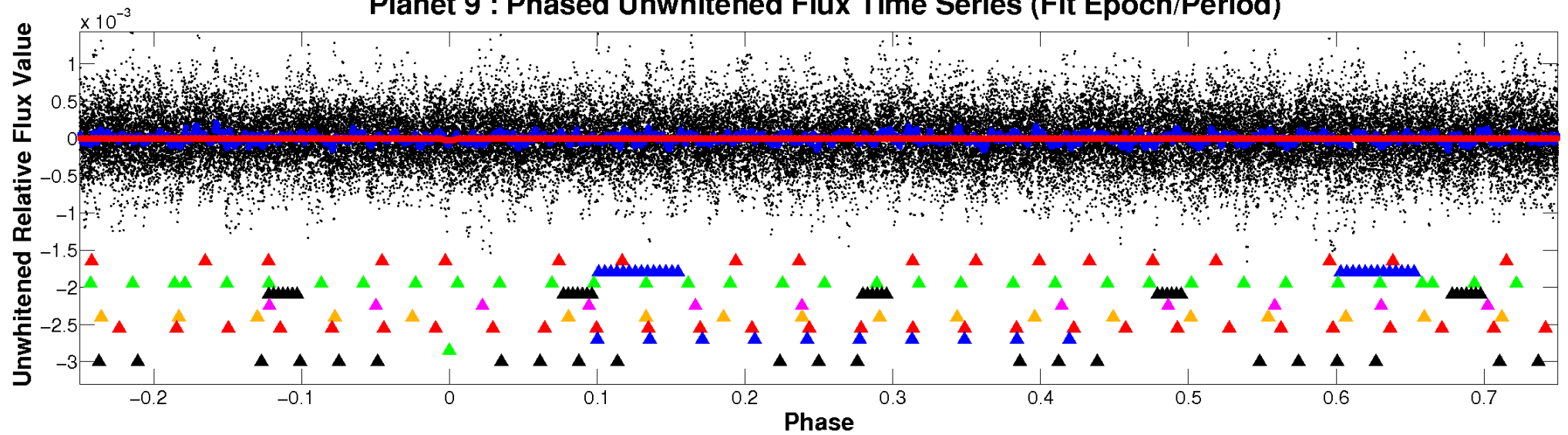
ALT Odd/Even

TCE 007950550-09

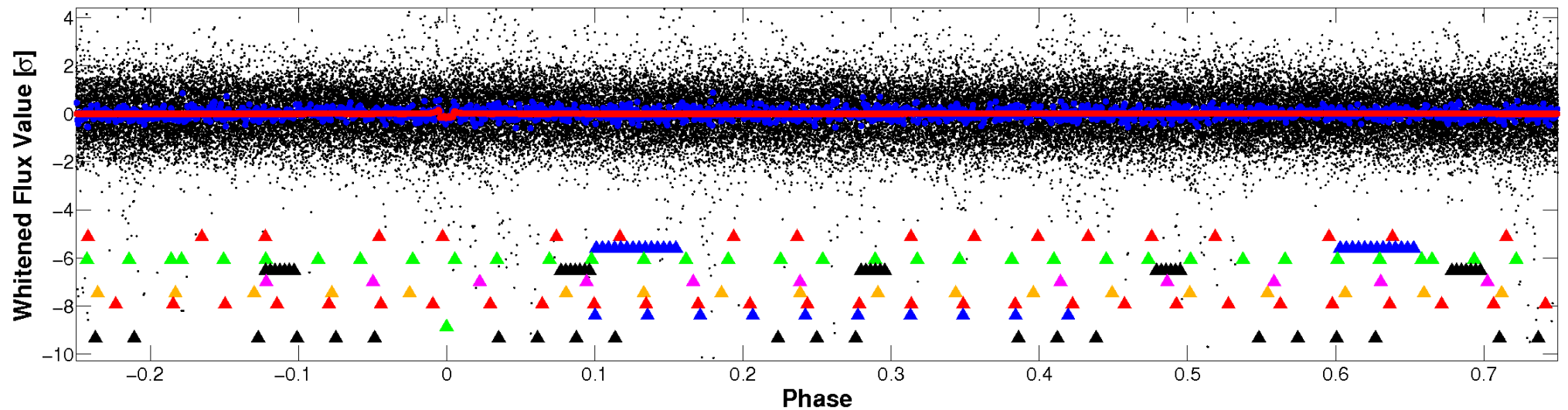


Non-Whitened Vs. Whitened Light Curve

Planet 9 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

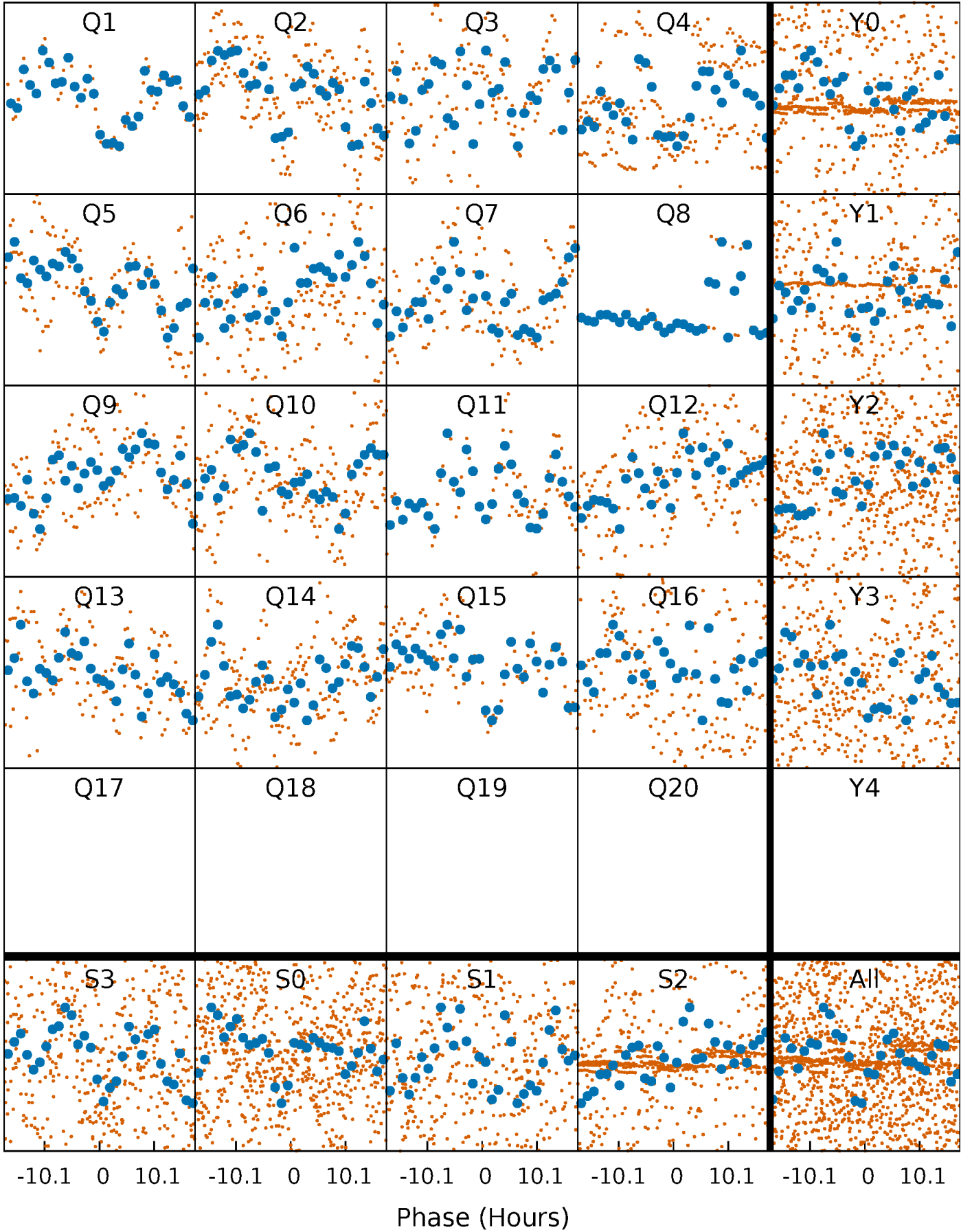


Planet 9 : Phased Whitened Flux Time Series (Fit Epoch/Period)



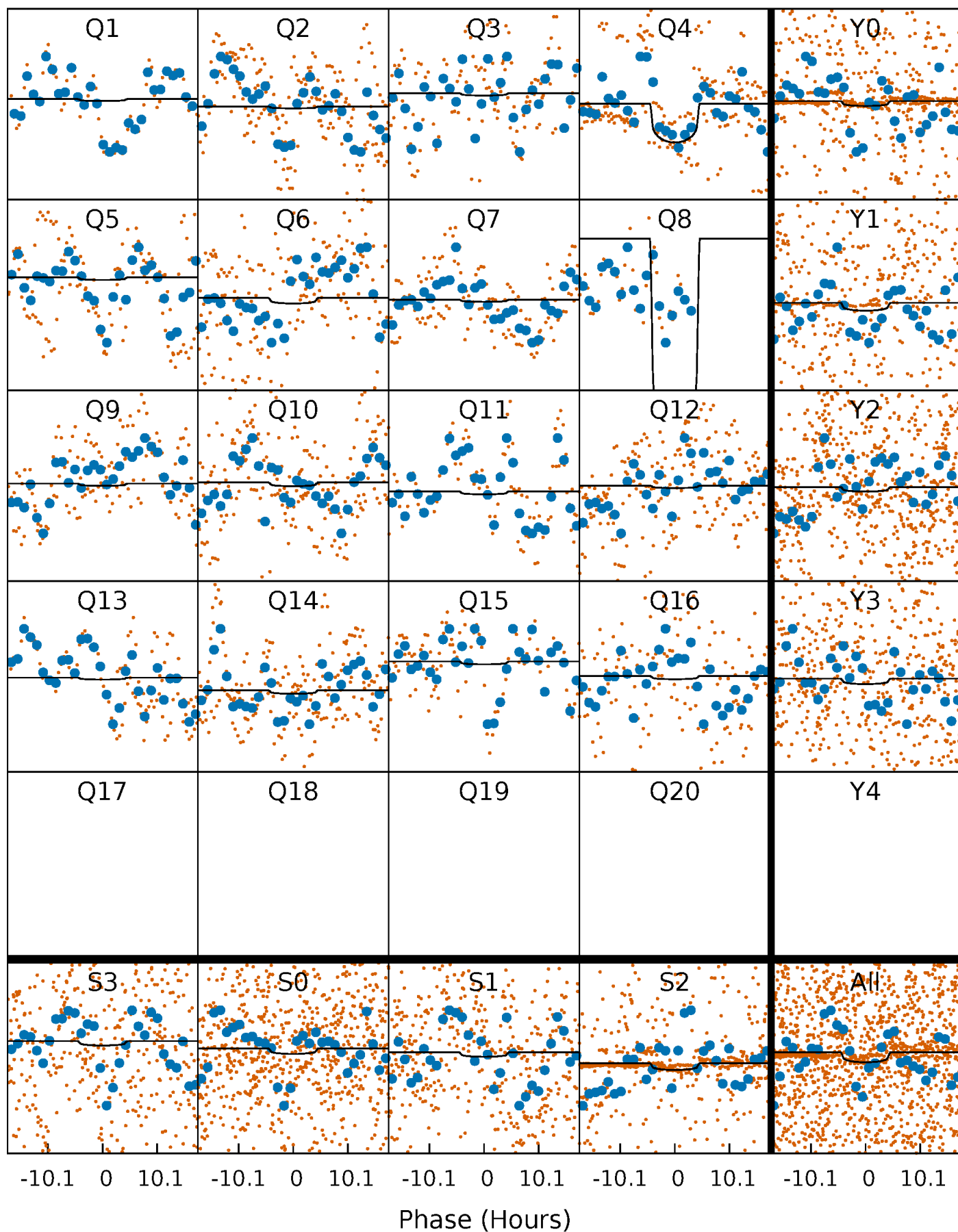
PDC Quarter-Phased Transit Curves

TCE 007950550-09 P= 37.154510 Days $T_0=135.118424$ (BKJD)



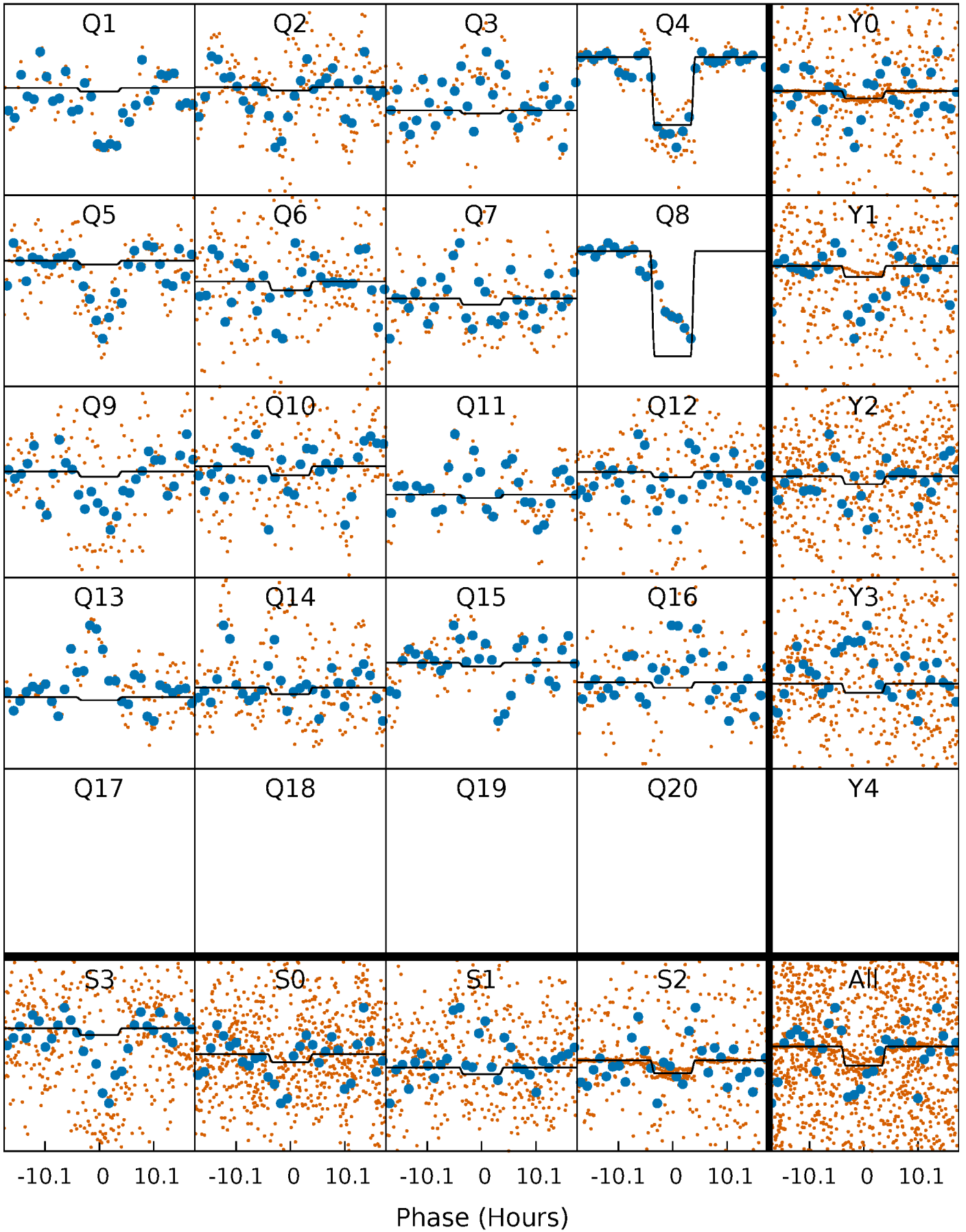
DV Quarter-Phased Transit Curves

TCE 007950550-09 P= 37.154510 Days $T_0=135.118424$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

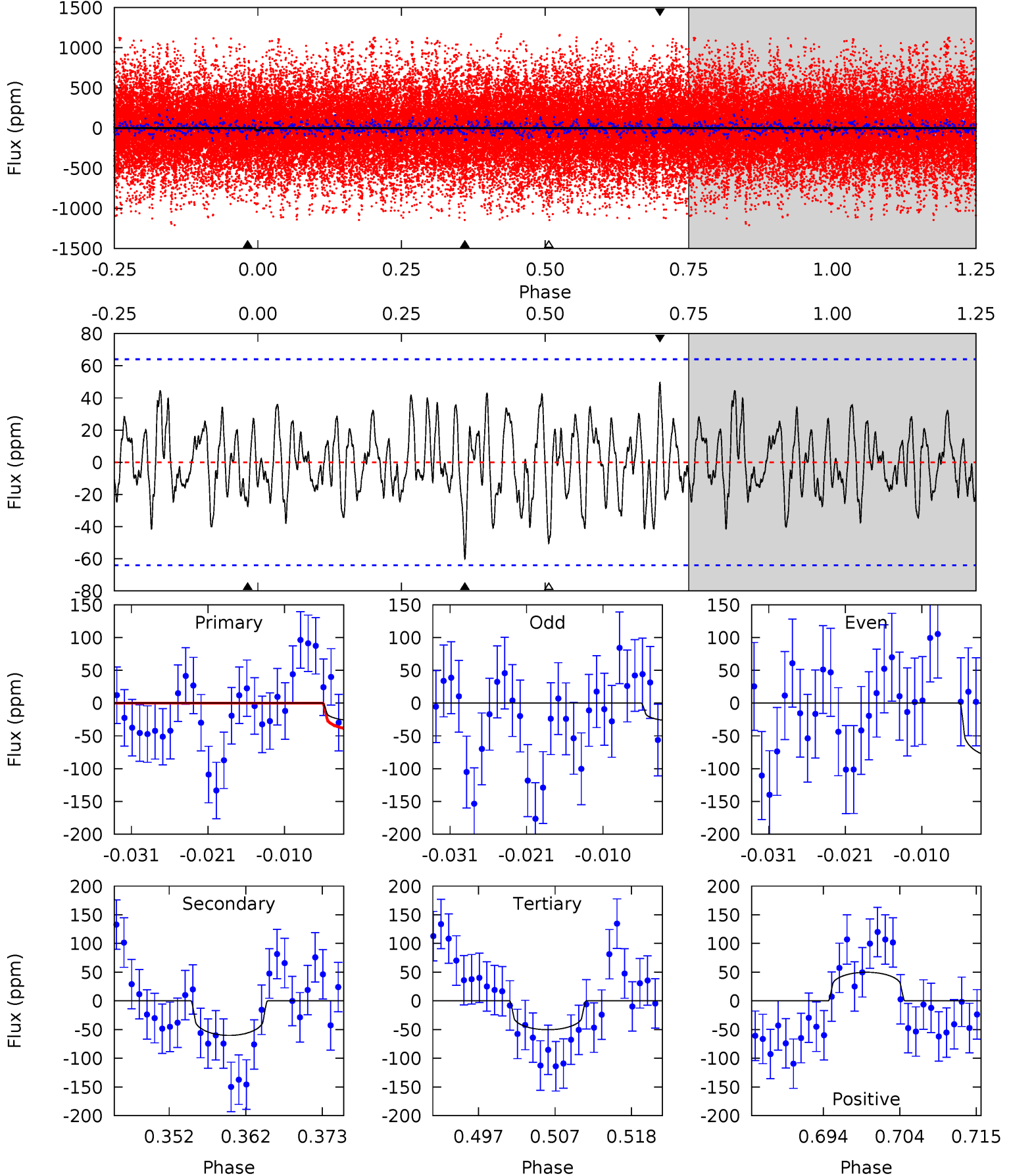
TCE 007950550-09 P= 37.151289 Days $T_0=135.143512$ (BKJD)



DV Model-Shift Uniqueness Test

007950550-09, P = 37.154510 Days, E = 97.963914 Days

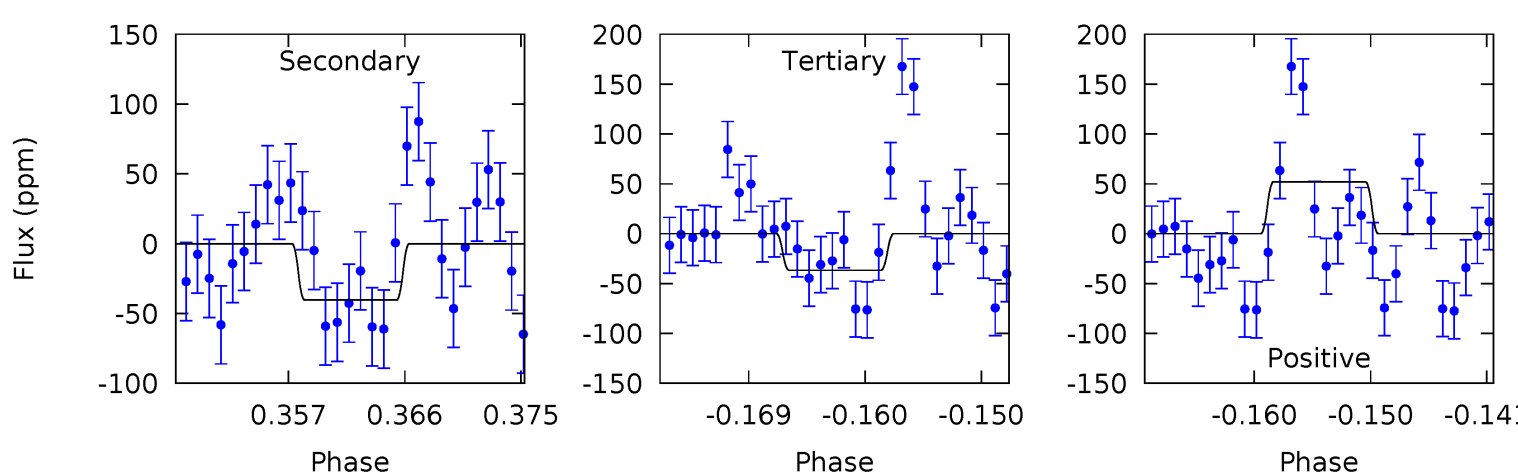
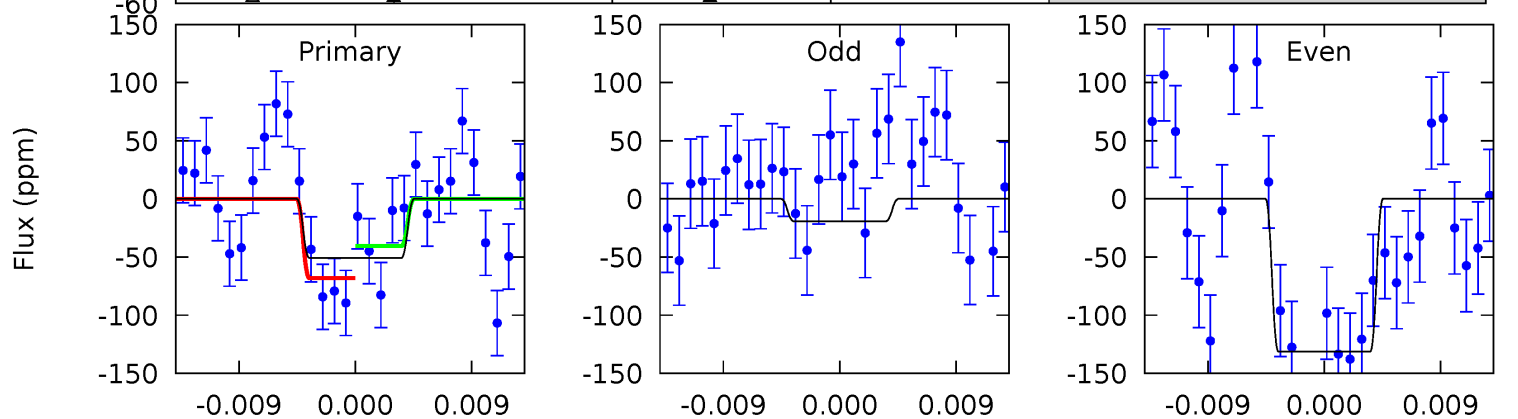
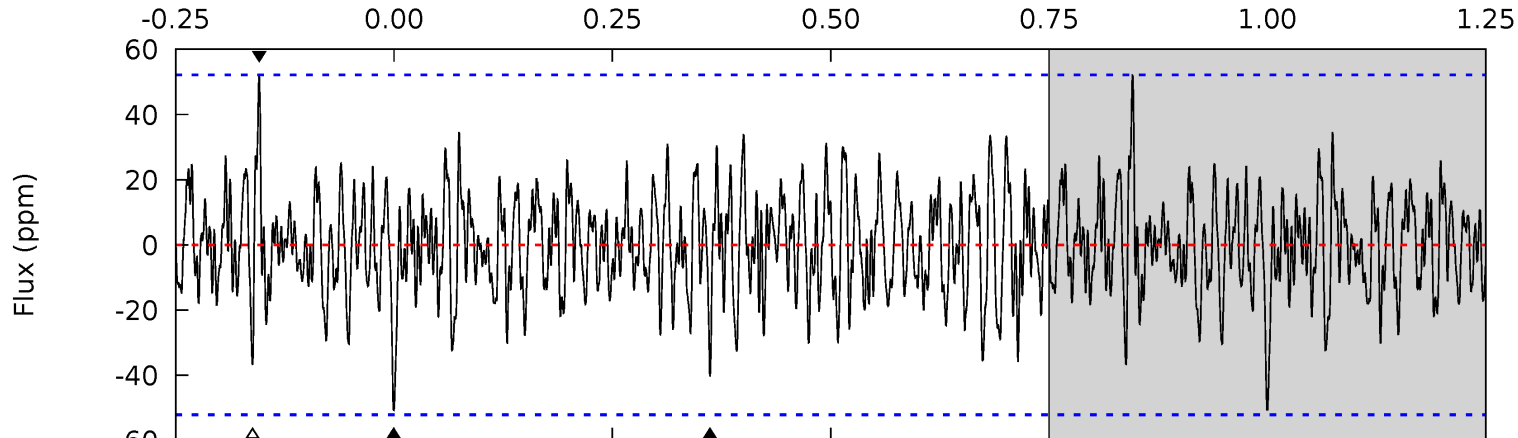
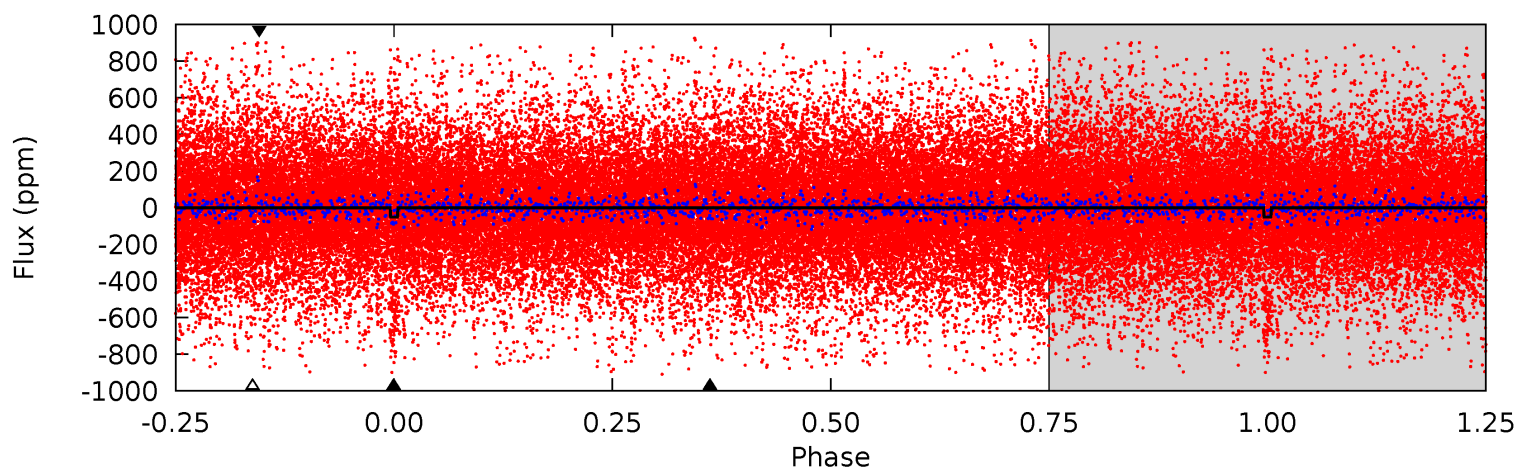
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.15	4.72	3.94	3.90	5.02	2.56	1.50	-1.79	-1.76	0.78	0.81	2.14	-0.18	0.45	1.06



Alt Model-Shift Uniqueness Test

007950550-09, P = 37.151289 Days, E = 97.992223 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.90	3.90	3.55	5.02	5.04	2.60	1.34	1.36	-0.12	0.35	-1.12	5.44	2.18	0.51	1.34



Stellar Parameters For KIC 007950550

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4929^{+38}_{-135}	$2.688^{+0.030}_{-0.030}$	$-0.200^{+0.100}_{-0.150}$	$10.657^{+1.098}_{-2.562}$	$2.022^{+0.770}_{-0.847}$	$0.002^{+0.001}_{-0.000}$
	+1%/-3%	+1%/-1%	+50%/-75%	+10%/-24%	+38%/-42%	+34%/-9%
Source	PHO55	AST55	SPE55	DSEP		

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

Secondary Eclipse Parameters for KIC 007950550-09 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-60 ± 13	$6.08^{+1.23}_{-1.30}$	1883^{+43}_{-60}	5866^{+650}_{-548}	69^{+39}_{-23}
Alt.	-40 ± 10	$7.11^{+1.20}_{-1.31}$	1886^{+42}_{-61}	5018^{+477}_{-408}	35^{+17}_{-12}

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 $A_{obs} \gg 1.0$

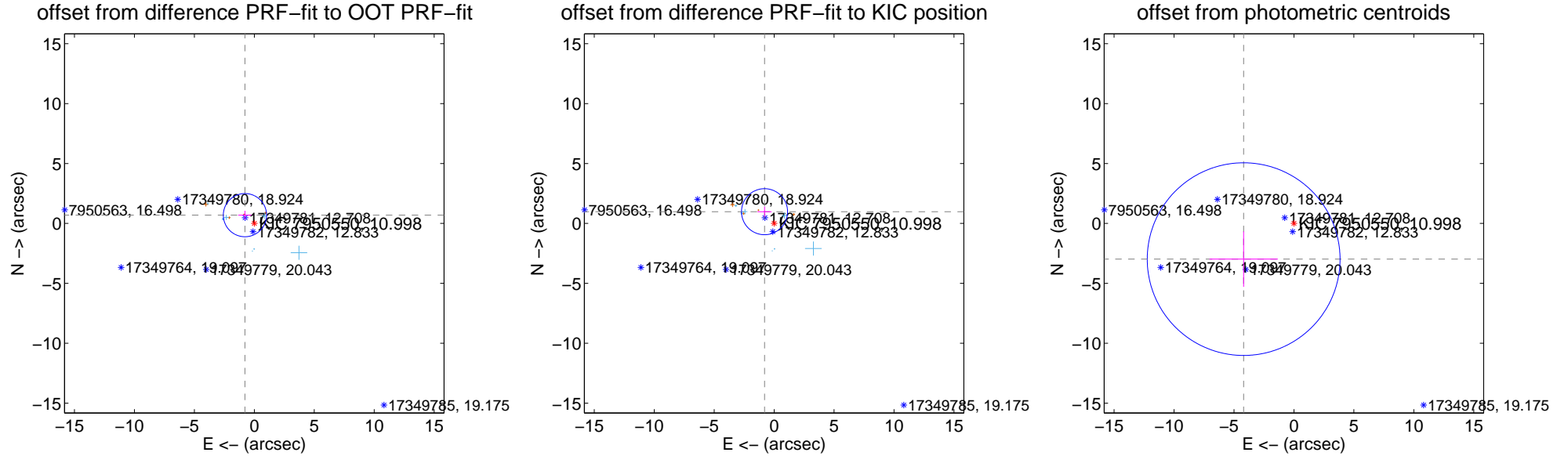
DV Centroid Data

Supplemental centroid analysis for 007950550-09. **Kepler magnitude: 11.00.** Transit SNR 8.77

There are 8 quarters with good PRF difference image offsets

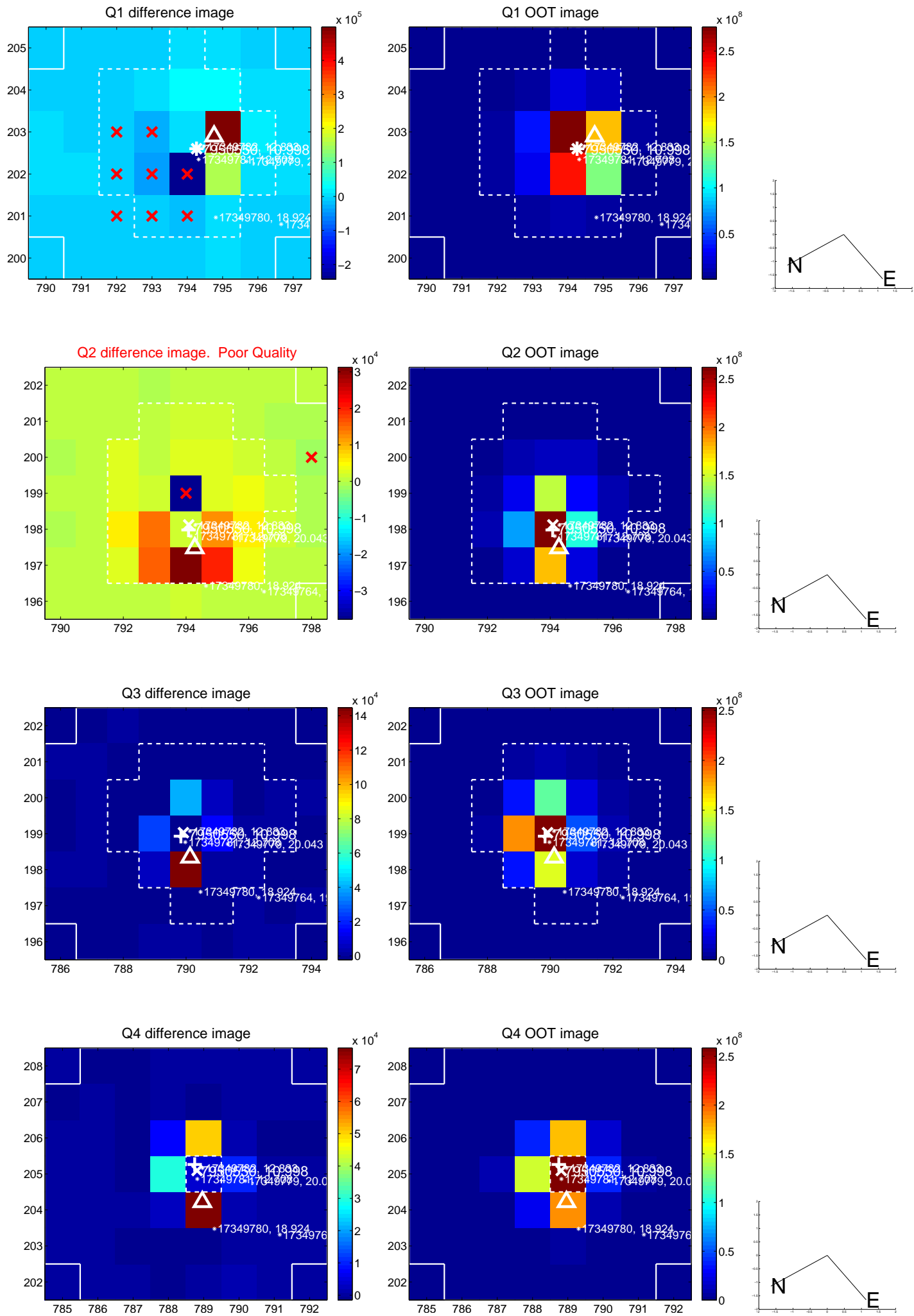
The direct PRF centroid is offset from the target star catalog position by about 0.47 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.044 ± 0.601	1.74	0.782 ± 0.563	0.692 ± 0.367
PRF-fit source offset from KIC position	1.264 ± 0.640	1.97	0.800 ± 0.586	0.979 ± 0.426
photometric centroid source offset	5.14 ± 2.68	1.92	4.19 ± 2.85	-2.98 ± 2.31

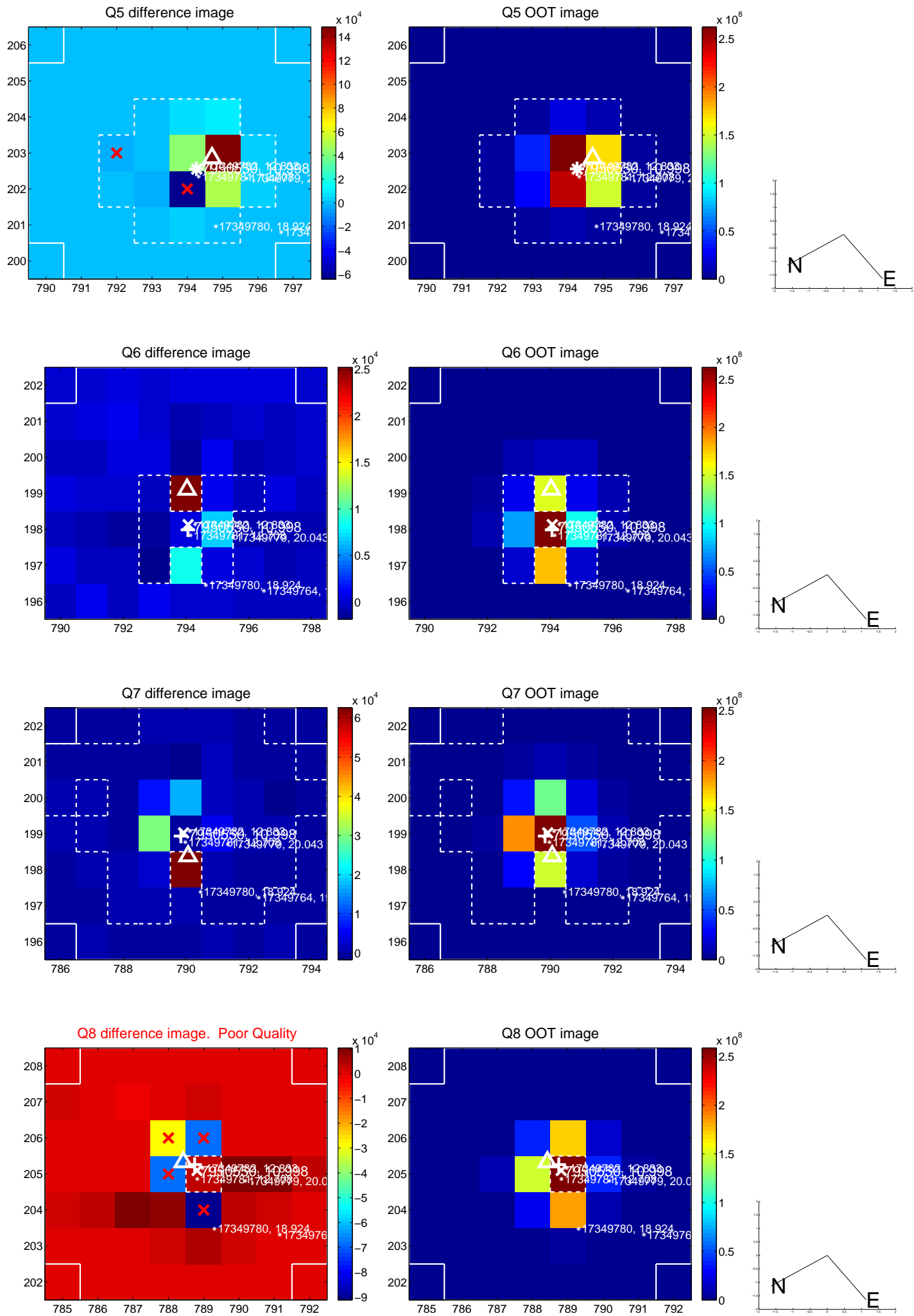


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

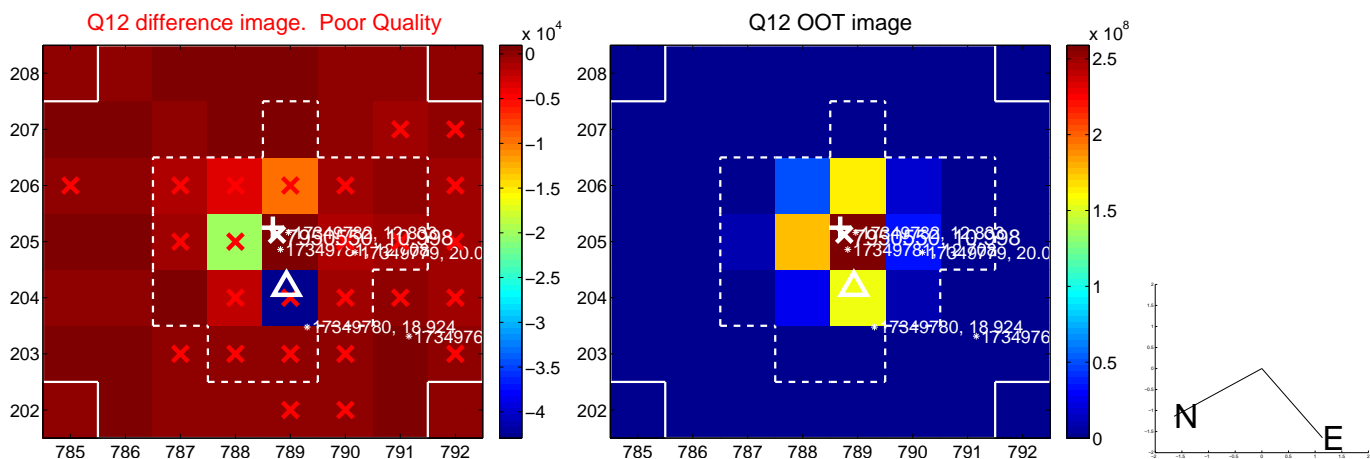
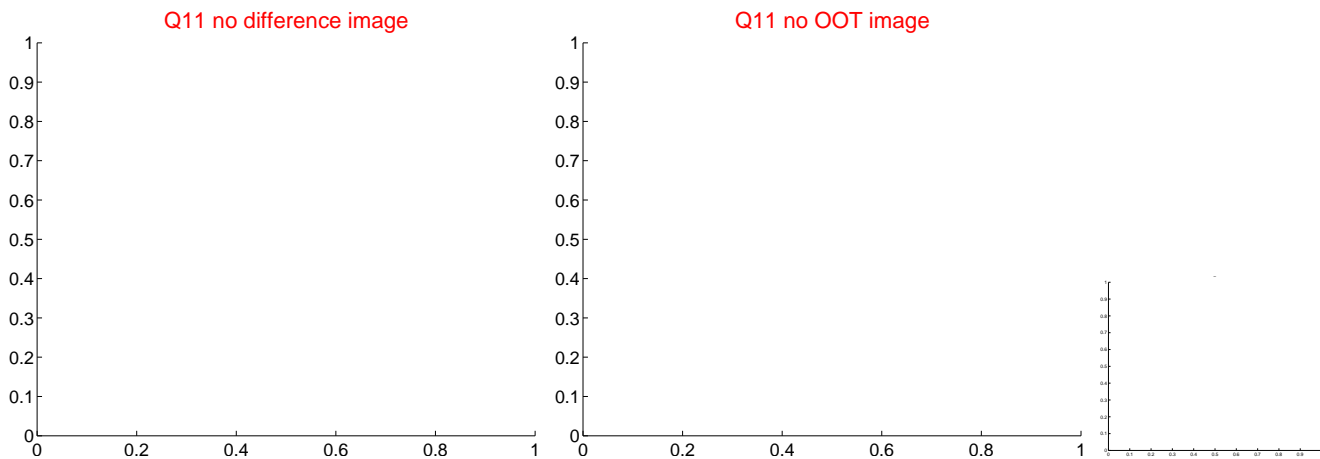
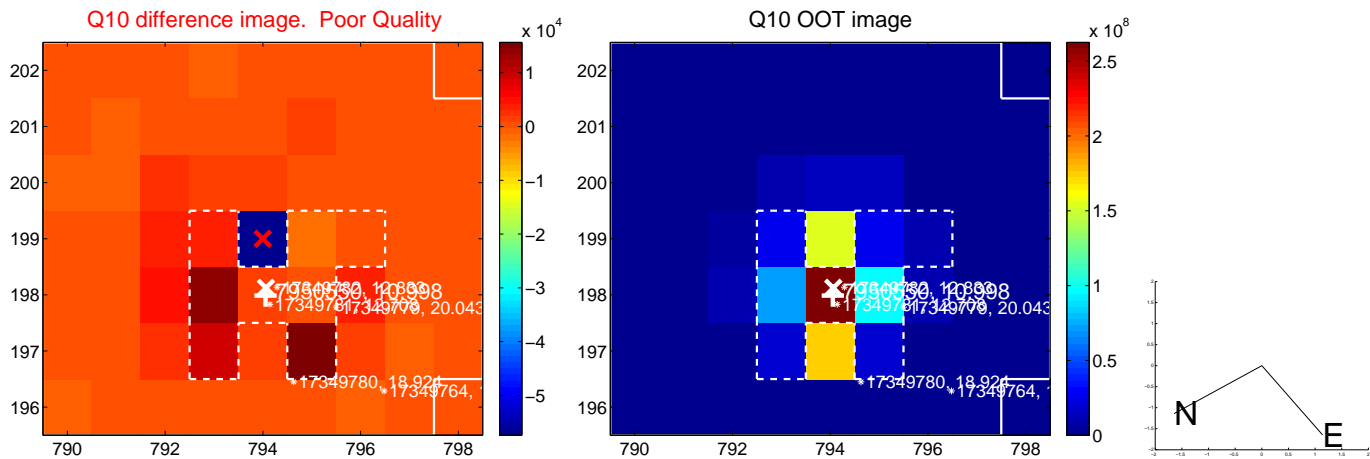
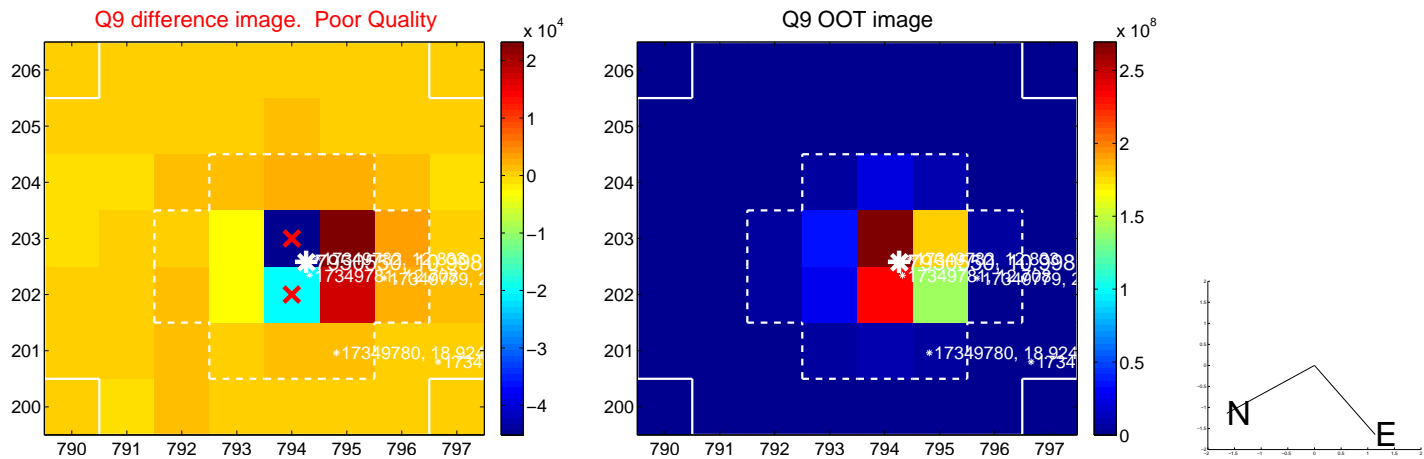
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



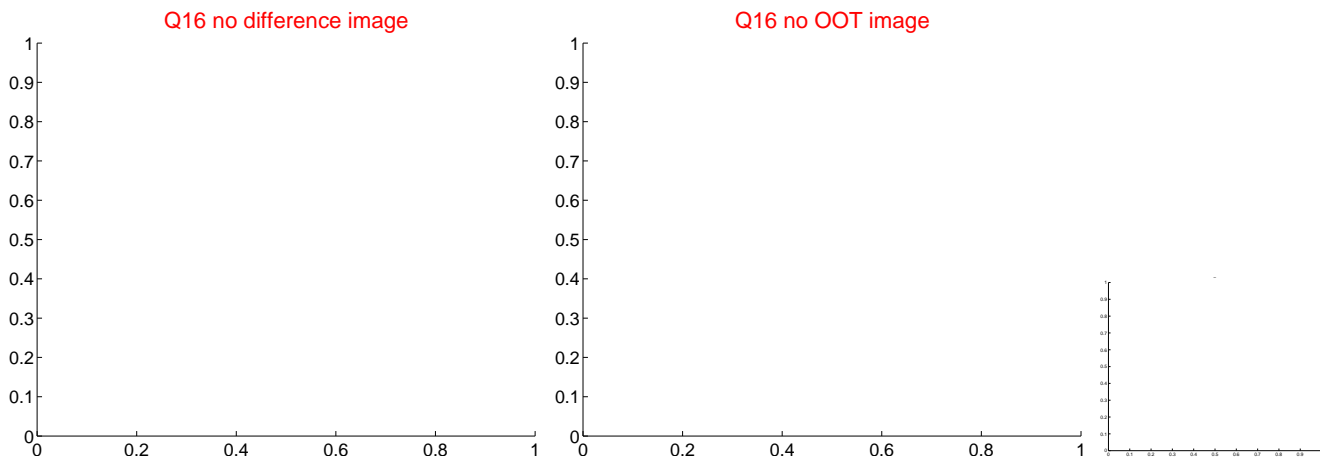
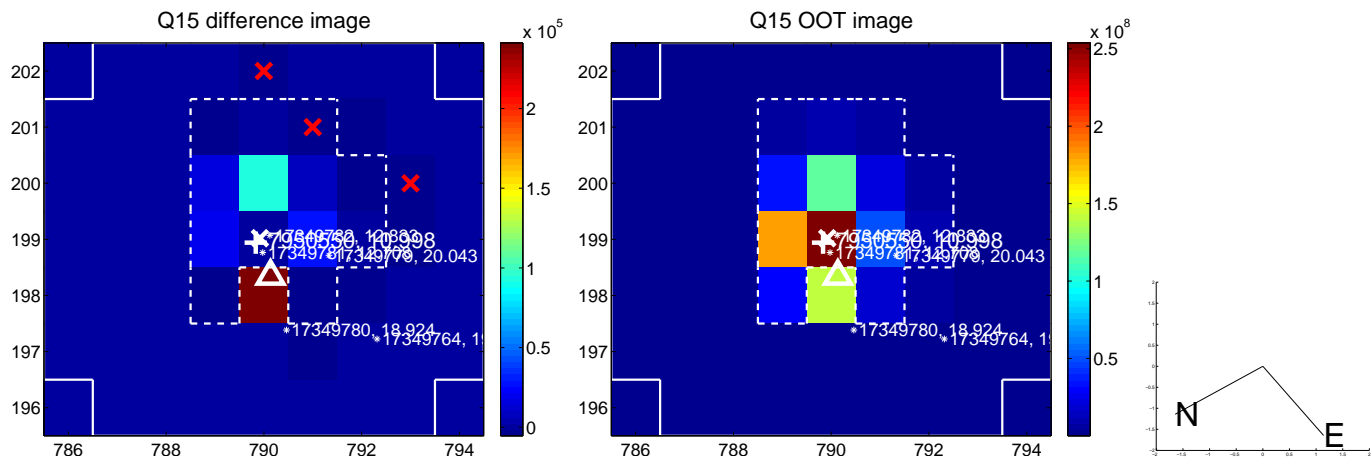
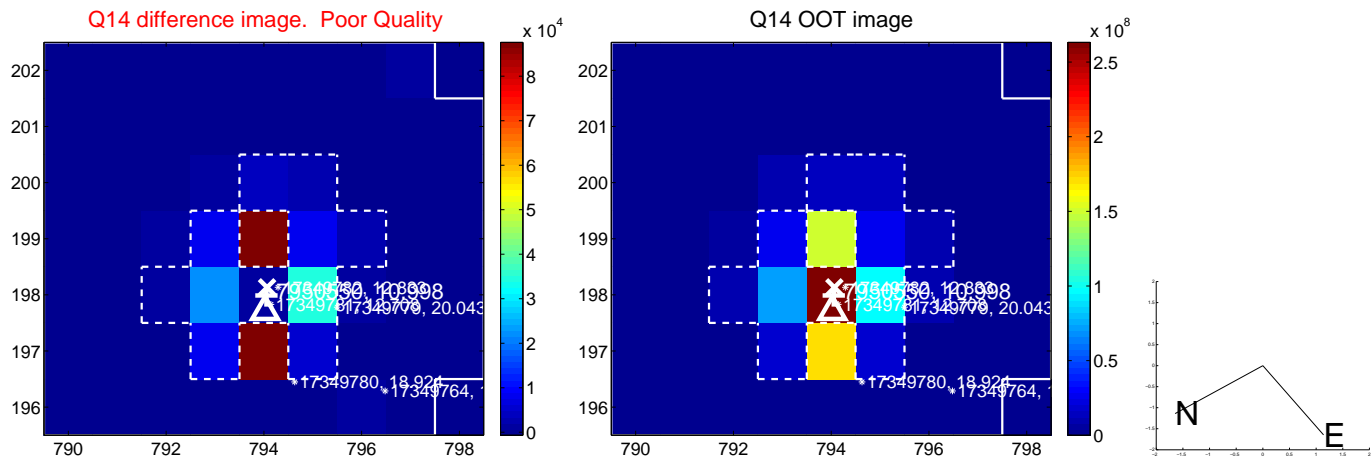
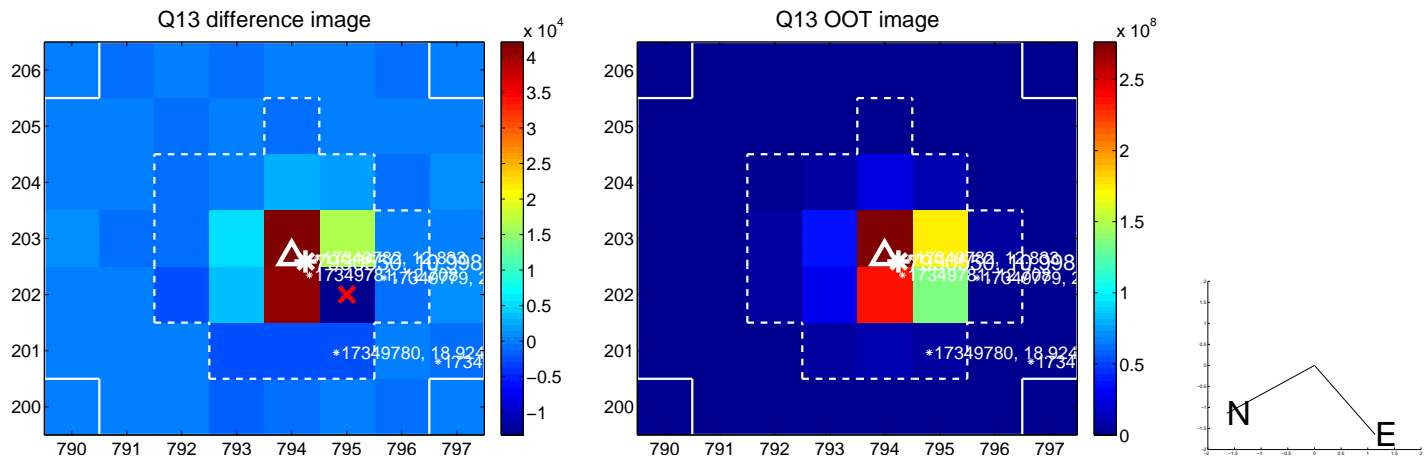
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



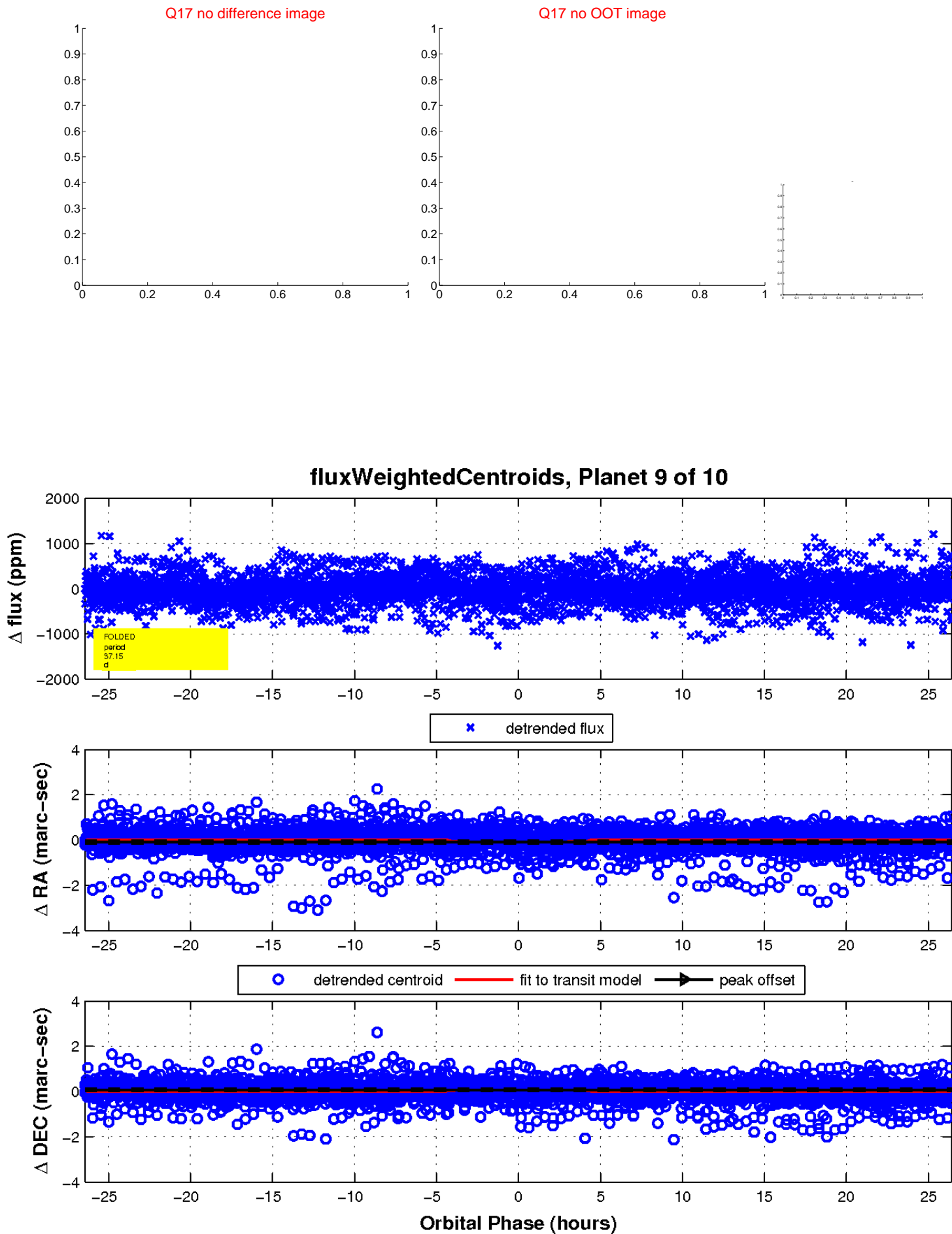
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



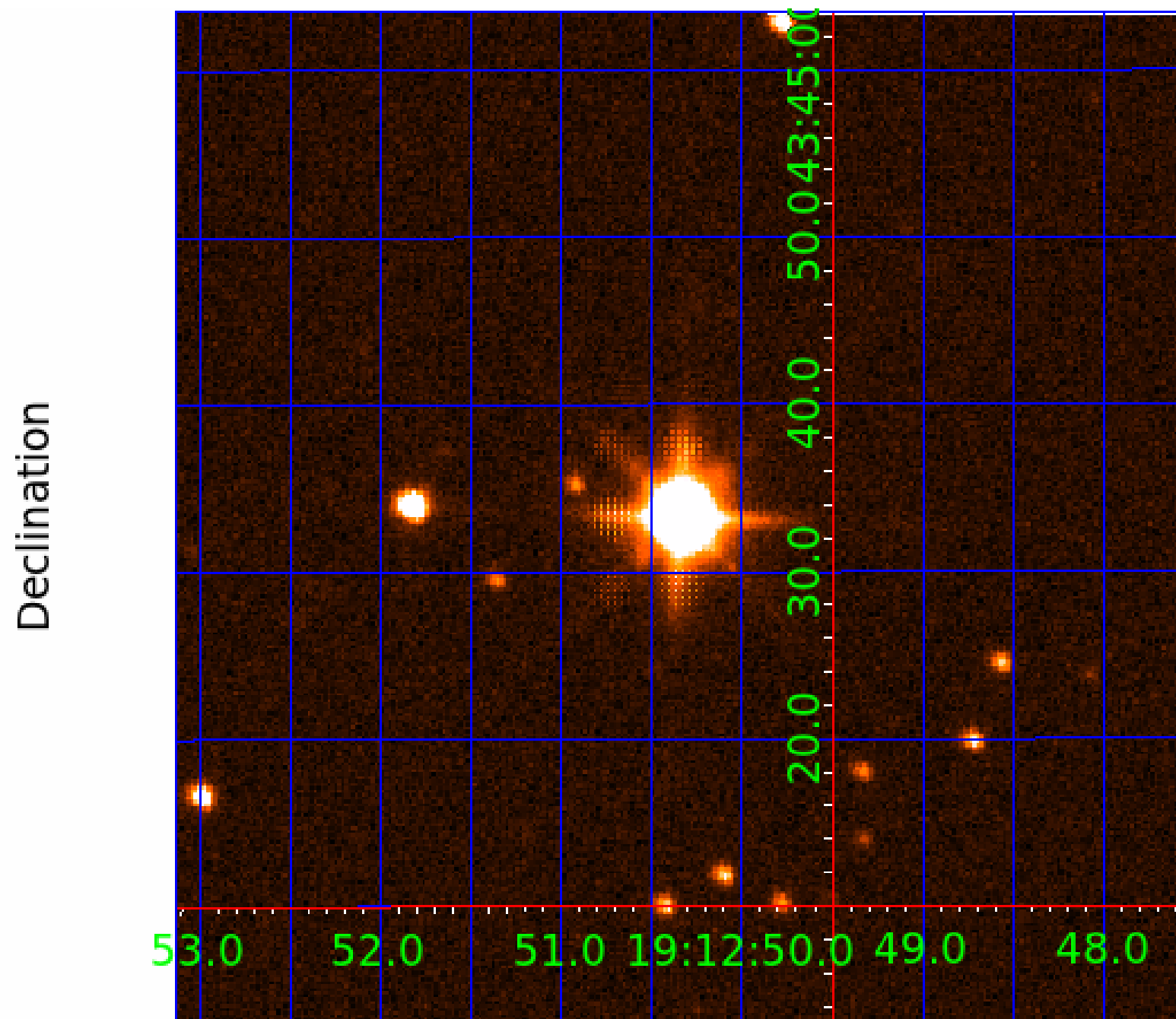
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 007950550

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})
007950550-01	OBS	No	78.754453	187.099506	53.7	1.615	31.6	16.3	10.66	4929	9.55	290.62
007950550-02	OBS	No	55.808550	138.872074	58.3	3.245	15.3	17.3	10.66	4929	9.37	459.99
007950550-03	OBS	No	42.951829	159.829241	41.0	5.498	15.7	11.4	10.66	4929	8.16	652.20
007950550-04	OBS	No	44.561631	161.040643	52.2	1.207	15.2	18.4	10.66	4929	9.53	620.97
007950550-05	OBS	No	131.379320	242.059586	29.5	11.224	15.0	7.7	10.66	4929	6.93	146.89
007950550-06	OBS	No	82.129715	143.985409	37.5	16.367	15.4	8.8	10.66	4929	7.65	274.80
007950550-07	OBS	No	51.755812	179.880861	10.9	1.900	14.1	3.5	10.66	4929	3.63	508.64
007950550-08	OBS	No	149.936248	138.841227	69.5	7.544	22.6	16.5	10.66	4929	10.82	123.16
007950550-09	OBS	No	37.154510	135.118424	21.9	8.813	14.3	8.8	10.66	4929	5.95	791.29
007950550-10	OBS	No	68.278848	136.425466	186.5	5.314	12.6	1.4	10.66	4929	16.52	351.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007950550-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-02	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED— HALO_GHOST
007950550-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS— CENT_SATURATED
007950550-06	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007950550-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT— CENT_SATURATED—HALO_GHOST
007950550-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_SATURATED
007950550-09	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED— HALO_GHOST
007950550-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT— MOD_POS_ALT—CENT_SATURATED

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

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

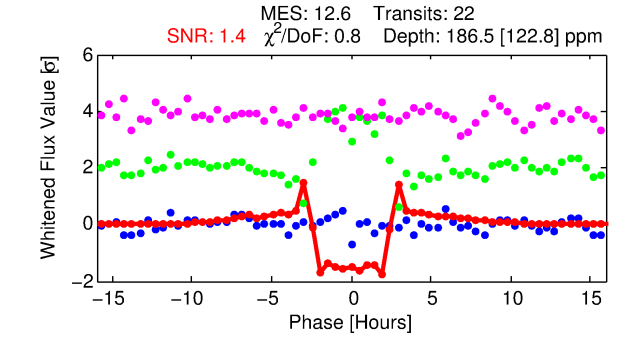
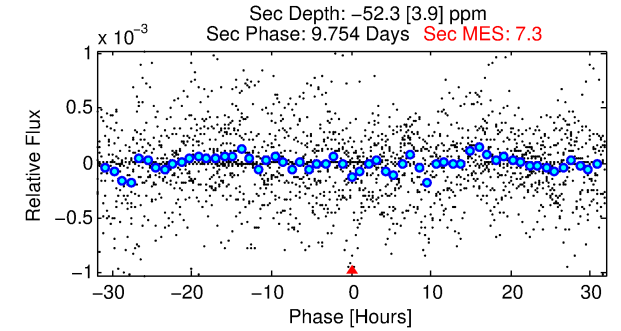
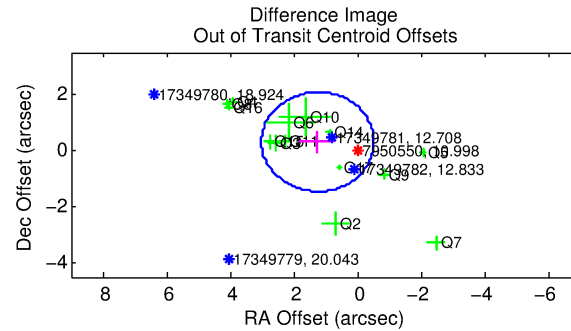
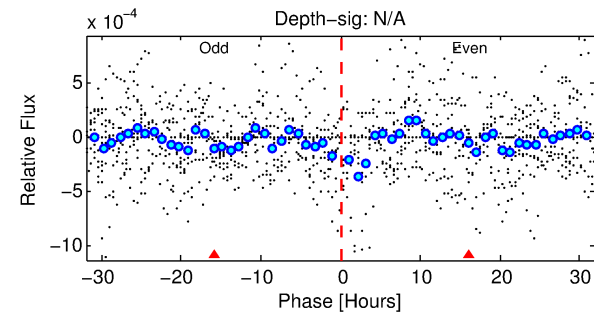
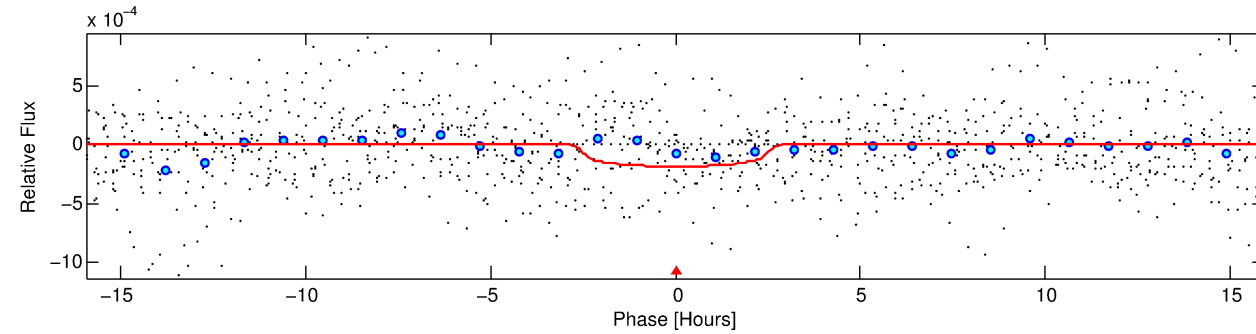
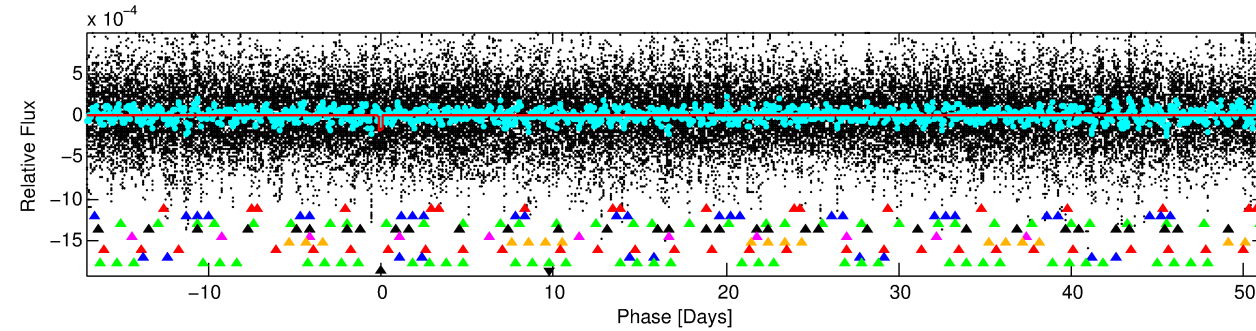
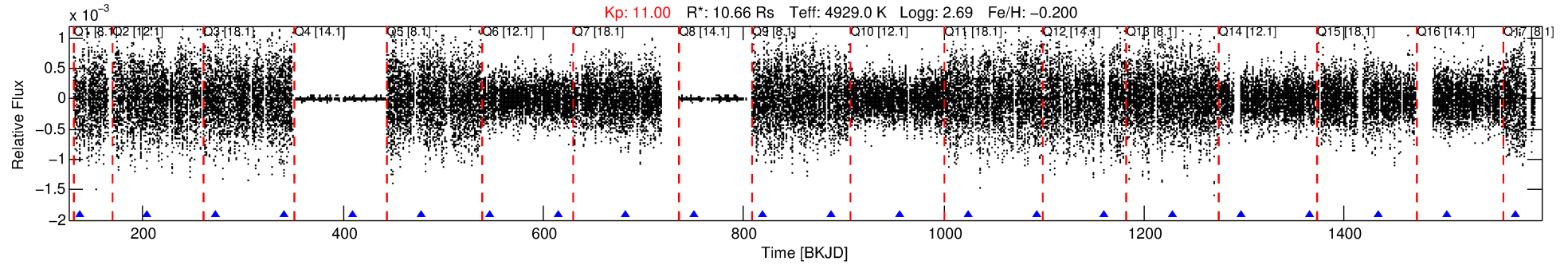
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007950550-10

No Significant Match Found

DV One-Page Summary

KIC: 7950550 Candidate: 10 of 10 Period: 68.279 d



DV Fit Results:

Period = 68.27885 [0.02599] d
Epoch = 136.4255 [0.0216] BKJD
Rp/R* = 0.0142 [0.0235]
a/R* = 58.17 [366.10]
b = 0.82 [2.49]
Seff = 351.54 [70.14]
Teq = 1104 [55] K
Rp = 16.52 [27.62] Re
a = 0.4133 [0.0669] AU
Ag = N/A
Teffp = N/A

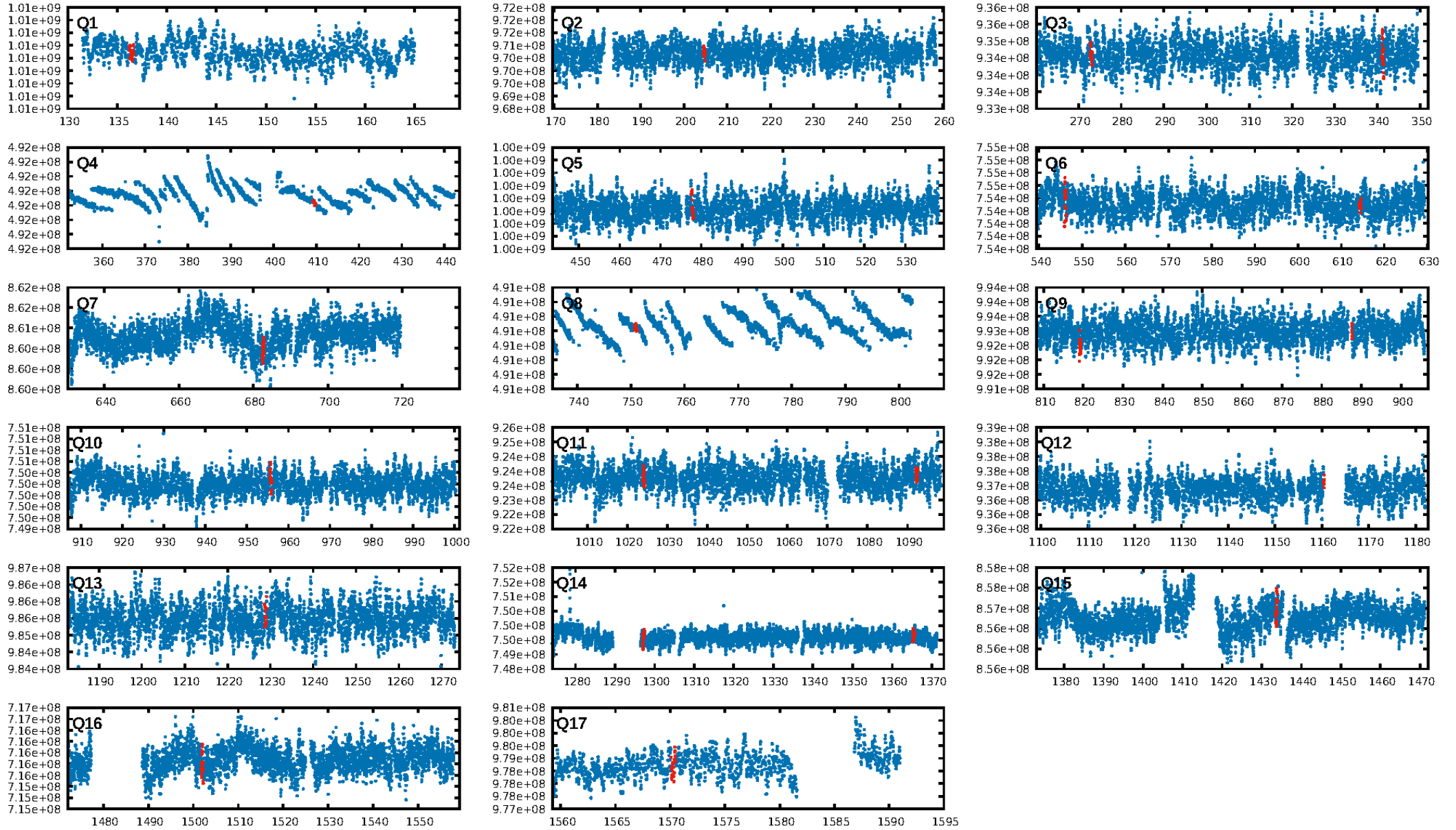
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [48.07σ]
LongPeriod-sig: 100.0% [45.27σ]
ModelChiSquare2-sig: 66.9%
ModelChiSquareGof-sig: 99.4%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [20/20]
GhostDiagnostic-chr: -0.402
Centroid-sig: 1.0%
Centroid-so: 0.672 arcsec [1.59σ]
OotOffset-rm: 1.285 arcsec [2.18σ]
KicOffset-rm: 1.356 arcsec [2.59σ]
OotOffset-st: 4/4/3/3 [14]
KicOffset-st: 4/4/3/3 [14]
DiffImageQuality-fgm: 0.50 [7/14]
DiffImageOverlap-fno: 0.93 [14/15]

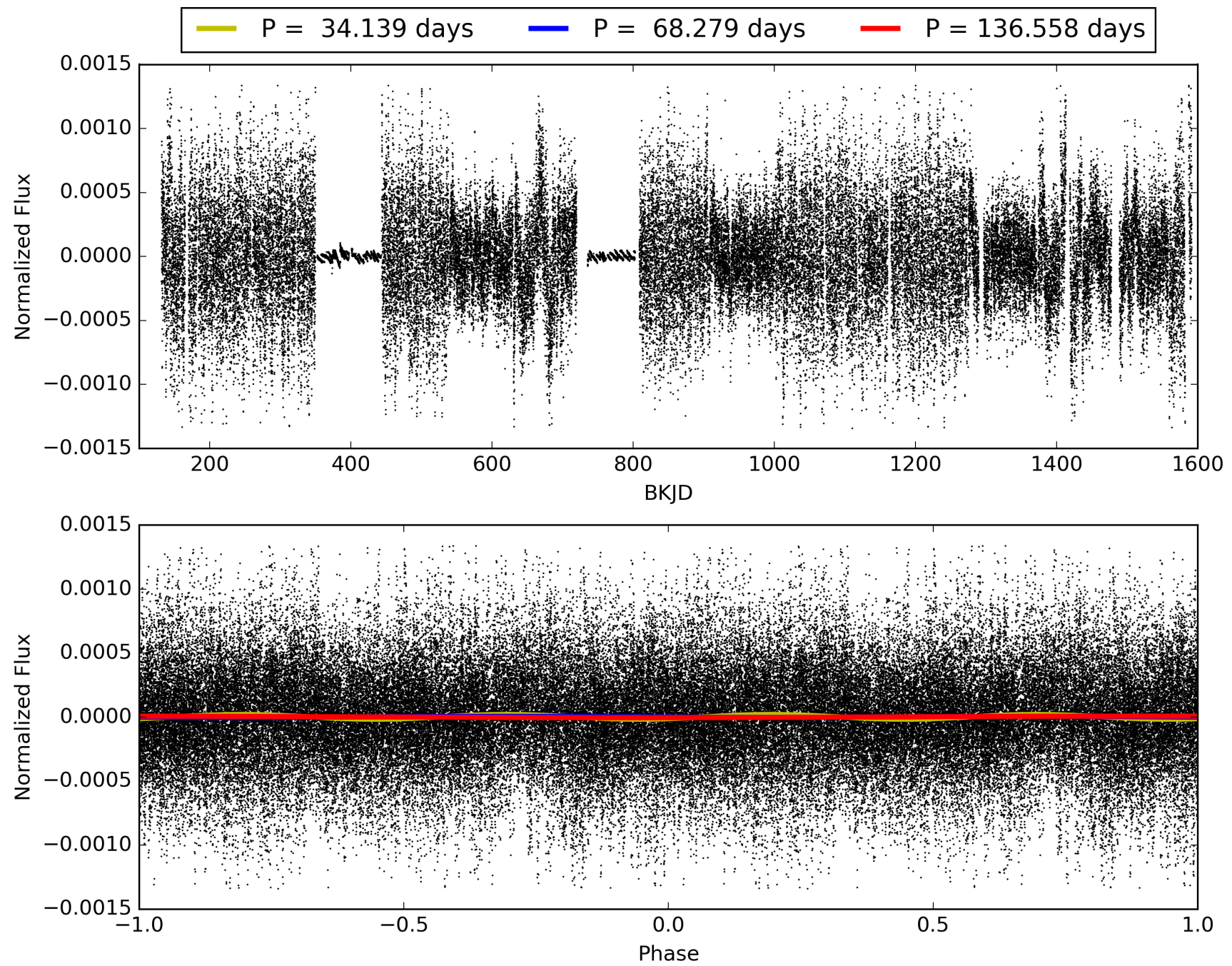
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:46:55 Z

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

TCE 007950550-10, PDC Light Curves

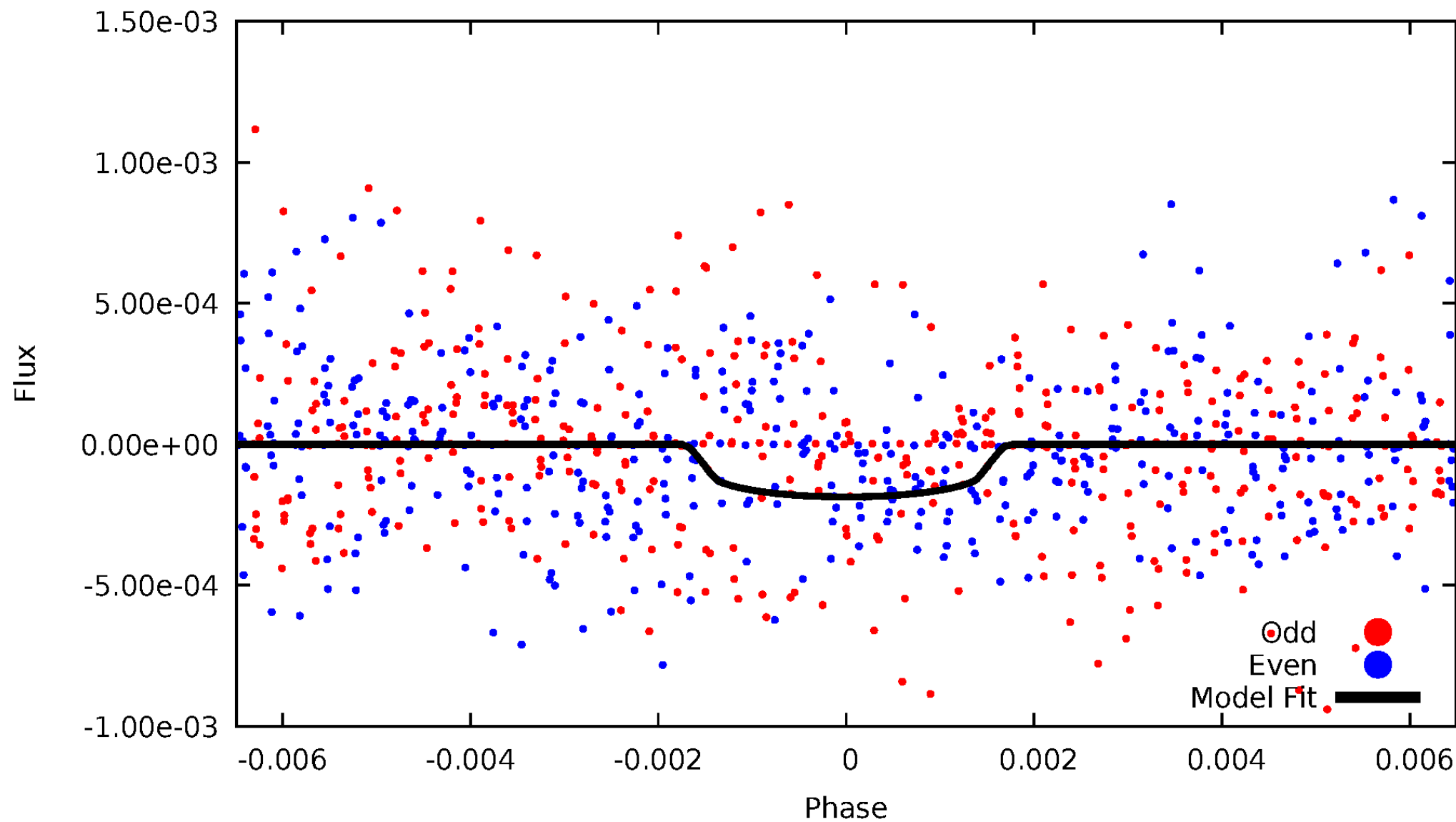


TCE 007950550-10



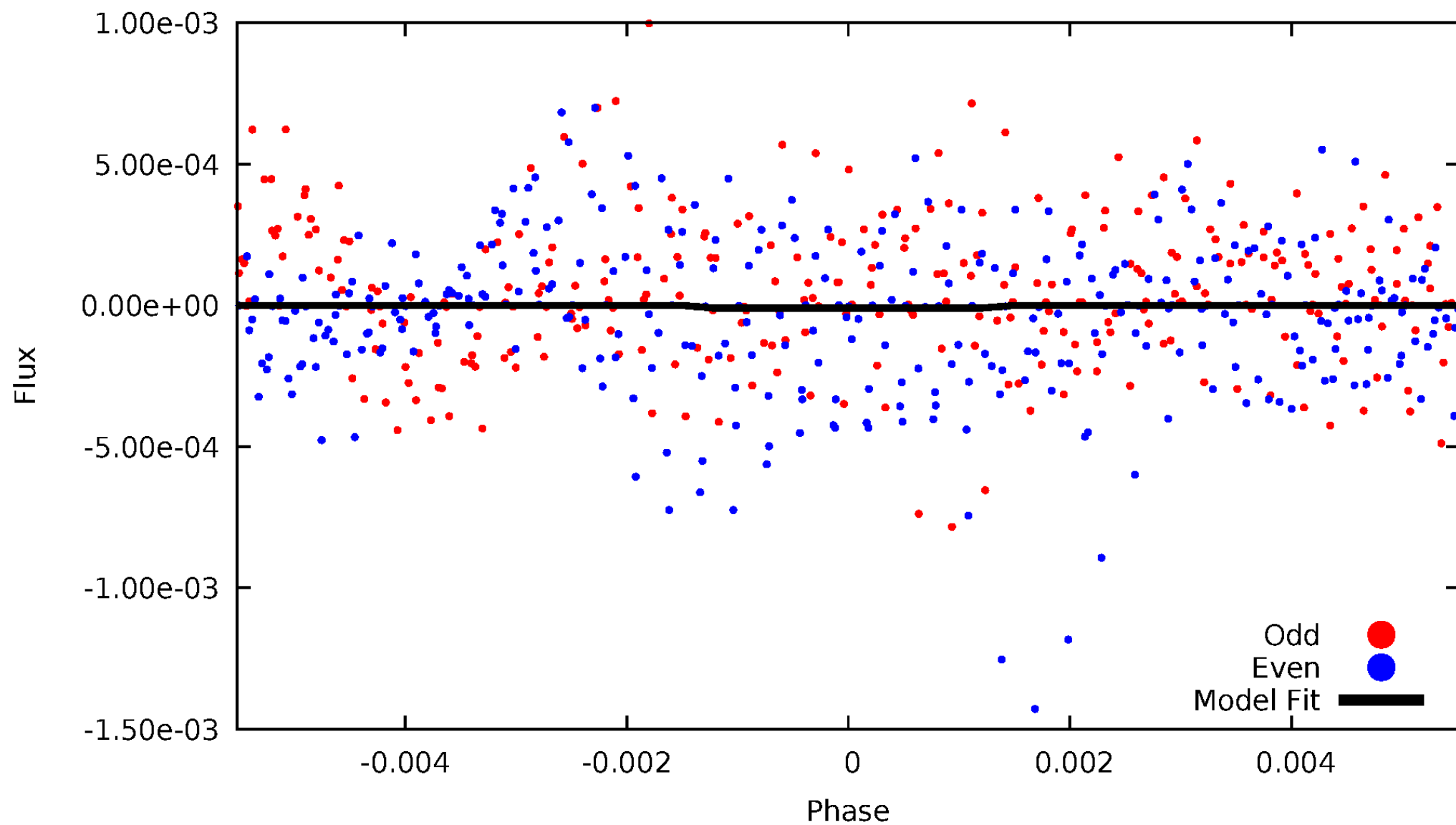
DV Odd/Even

TCE 007950550-10



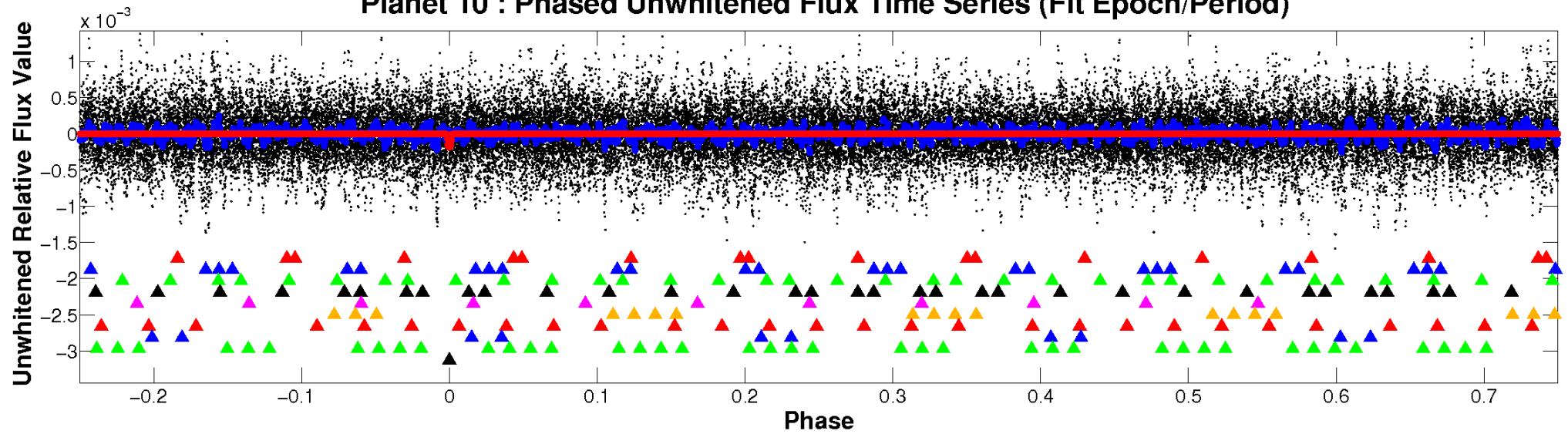
ALT Odd/Even

TCE 007950550-10

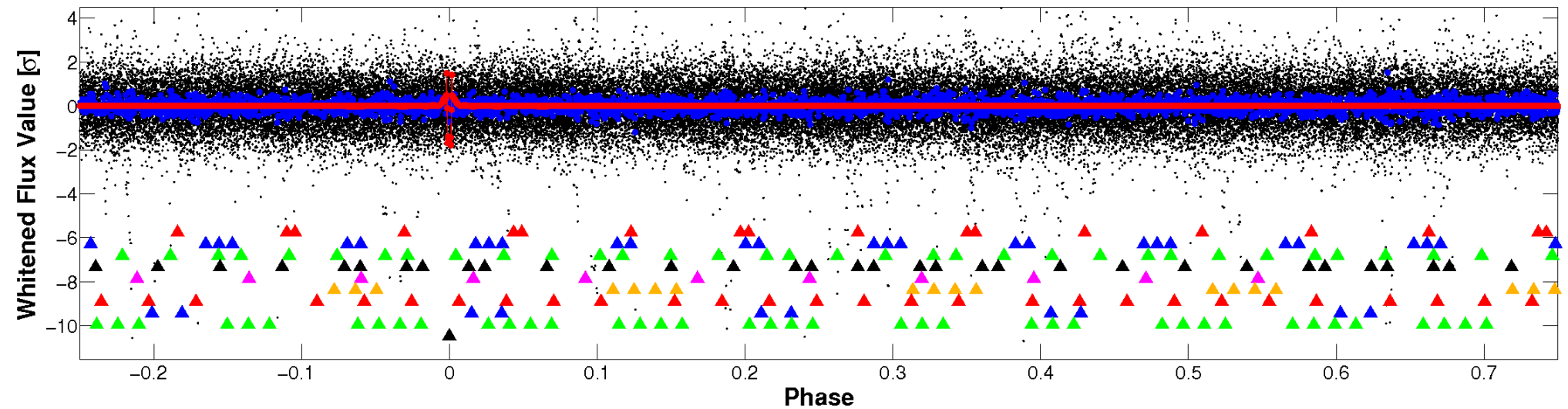


Non-Whitened Vs. Whitened Light Curve

Planet 10 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

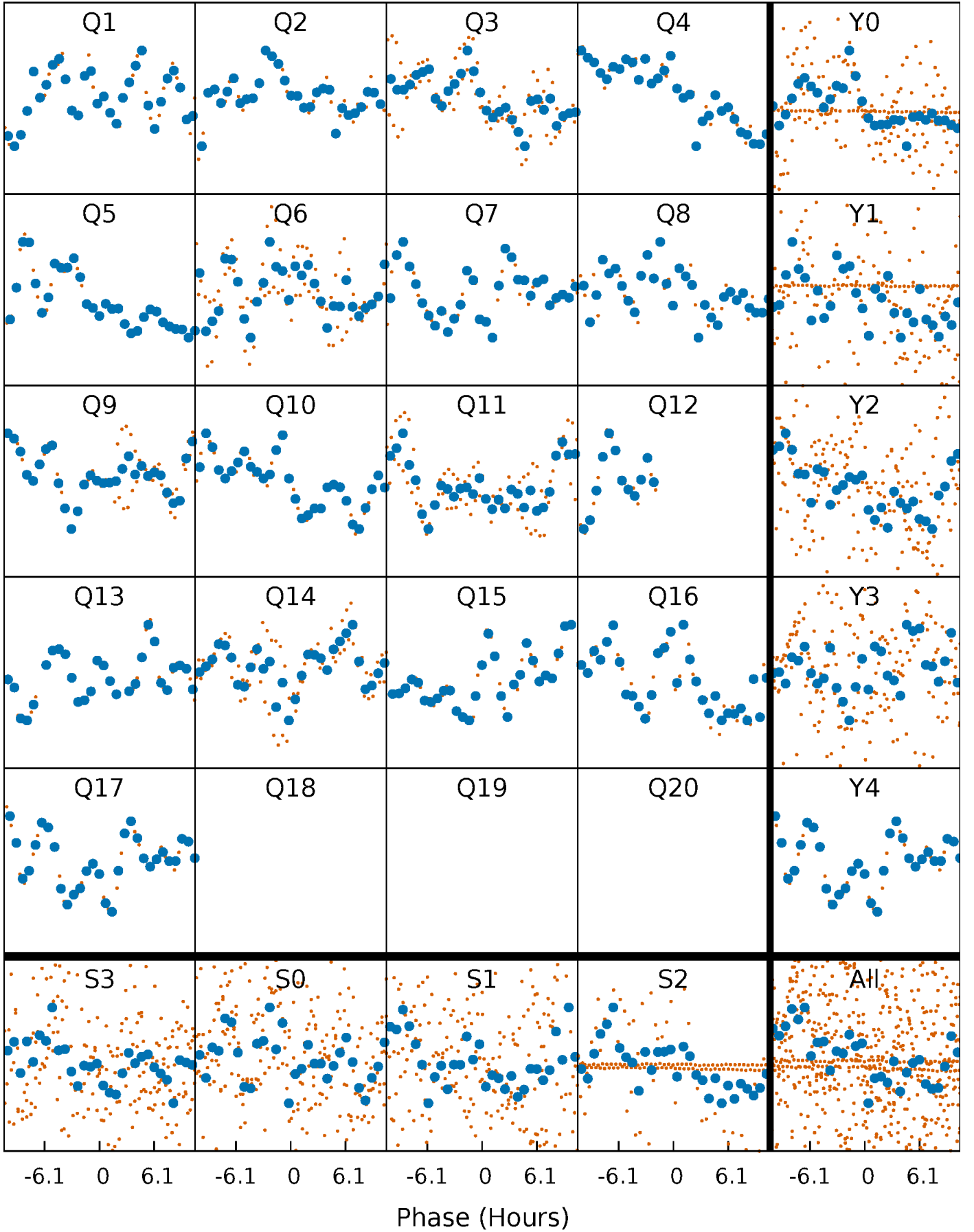


Planet 10 : Phased Whitened Flux Time Series (Fit Epoch/Period)



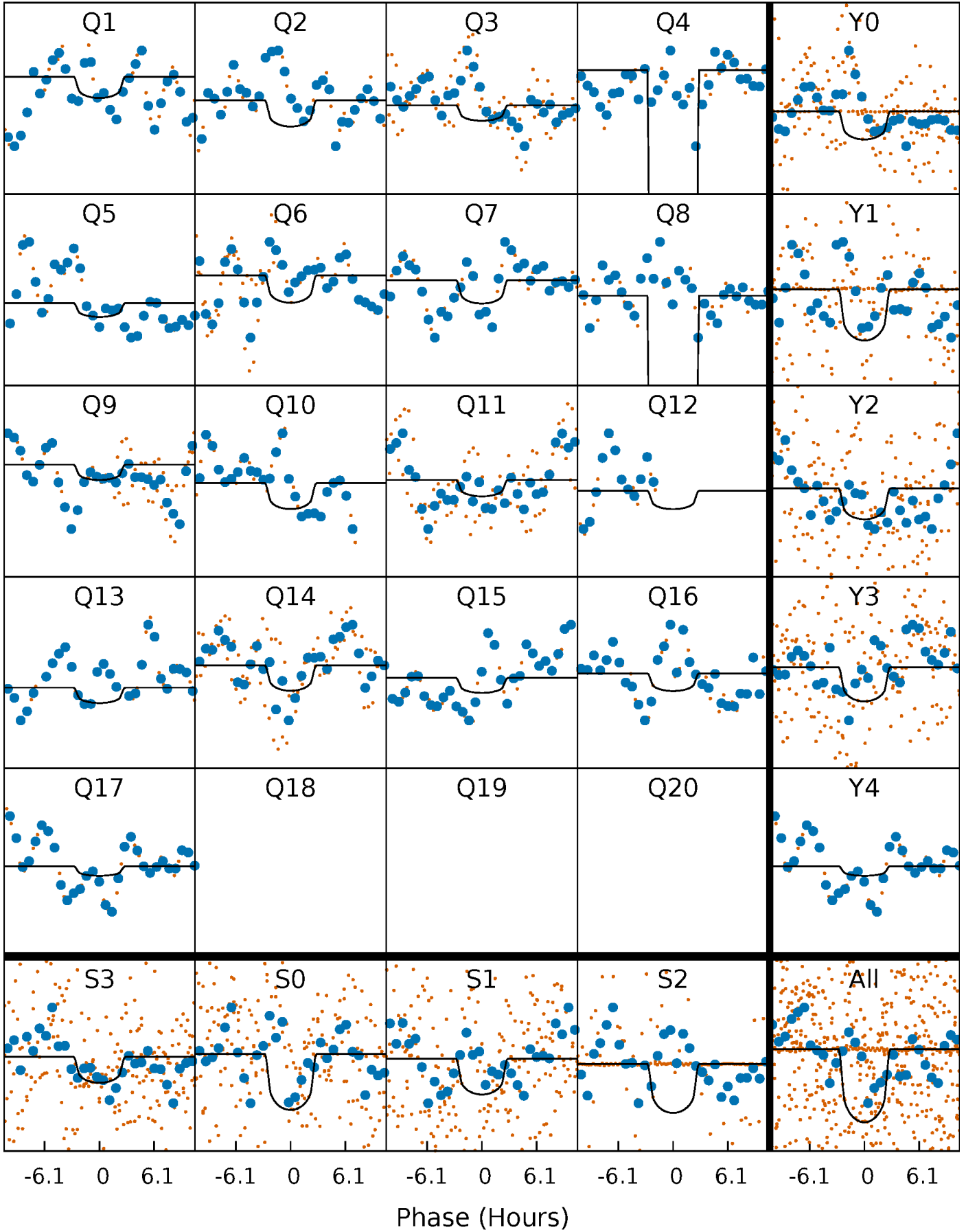
PDC Quarter-Phased Transit Curves

TCE 007950550-10 P= 68.278848 Days $T_0=136.425466$ (BKJD)



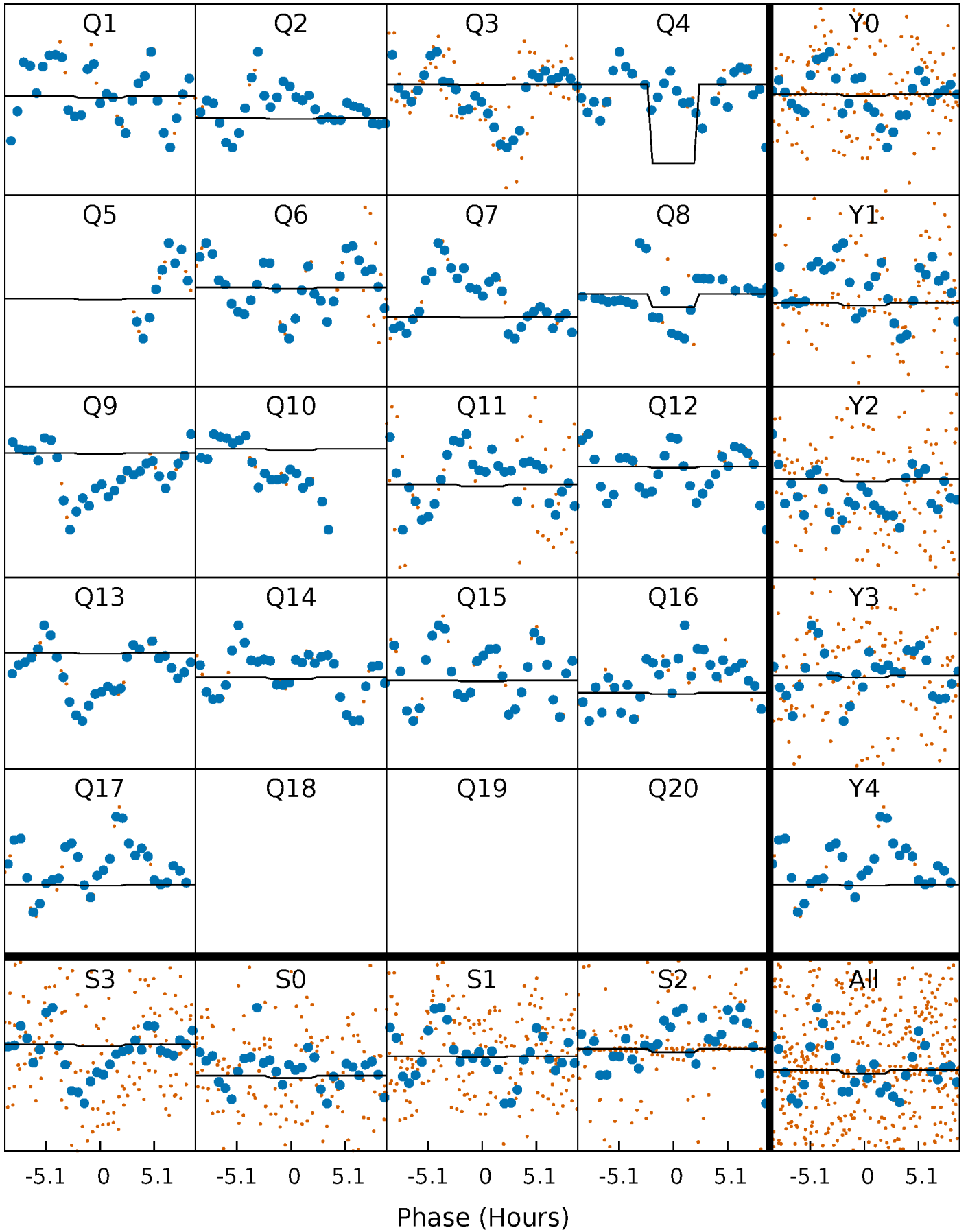
DV Quarter-Phased Transit Curves

TCE 007950550-10 $P = 68.278848$ Days $T_0 = 136.425466$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

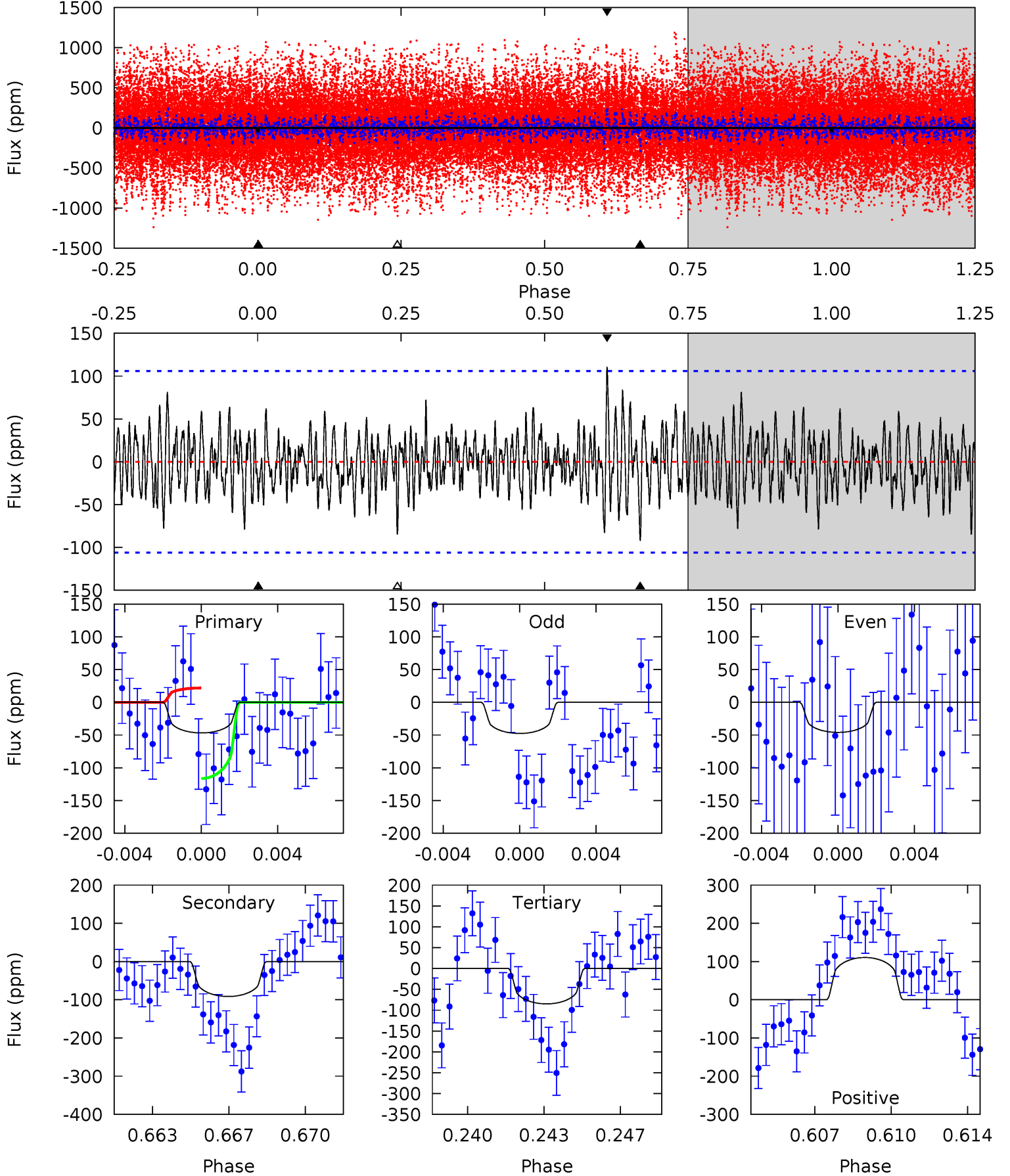
TCE 007950550-10 P= 67.948993 Days $T_0=136.410609$ (BKJD)



DV Model-Shift Uniqueness Test

007950550-10, P = 68.278848 Days, E = 68.146618 Days

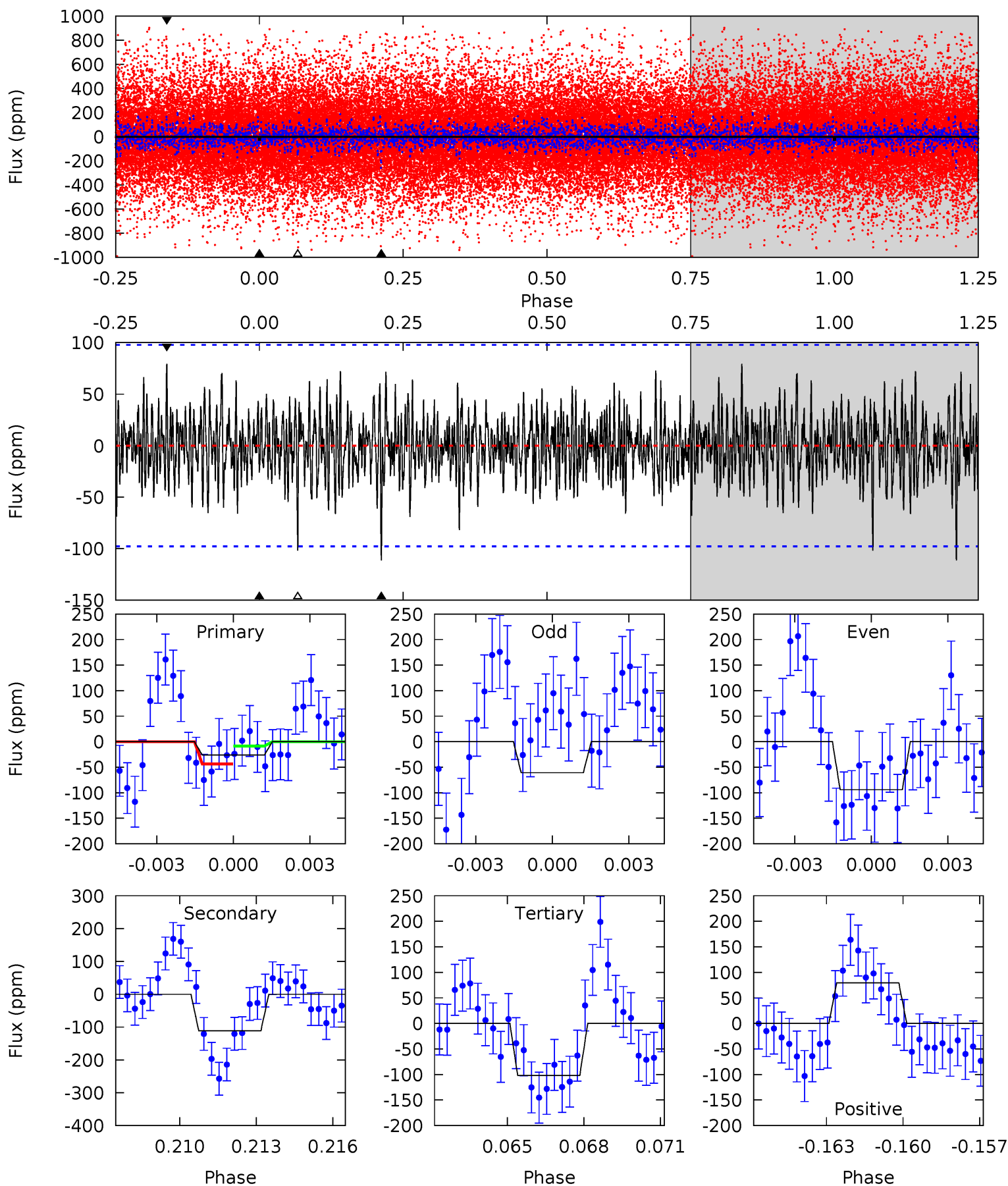
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.31	4.51	4.18	5.45	5.22	2.92	1.41	-1.88	-3.15	0.32	-0.94	0.04	6.69	0.55	2.34



Alt Model-Shift Uniqueness Test

007950550-10, P = 67.948993 Days, E = 68.461616 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.40	6.00	5.48	4.28	5.26	2.97	1.36	-4.07	-2.88	0.52	1.72	0.89	-7.07	0.42	0.94



Stellar Parameters For KIC 007950550

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4929^{+38}_{-135}	$2.688^{+0.030}_{-0.030}$	$-0.200^{+0.100}_{-0.150}$	$10.657^{+1.098}_{-2.562}$	$2.022^{+0.770}_{-0.847}$	$0.002^{+0.001}_{-0.000}$
	+1%/-3%	+1%/-1%	+50%/-75%	+10%/-24%	+38%/-42%	+34%/-9%
Source	PHO55	AST55	SPE55	DSEP		

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

Secondary Eclipse Parameters for KIC 007950550-10 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-91 ± 20	$26.58^{+23.67}_{-17.85}$	1538^{+37}_{-56}	3547^{+1778}_{-658}	12^{+93}_{-9}
Alt.	-111 ± 19	$20.25^{+19.90}_{-15.00}$	1538^{+41}_{-49}	4005^{+3439}_{-838}	25^{+349}_{-19}

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

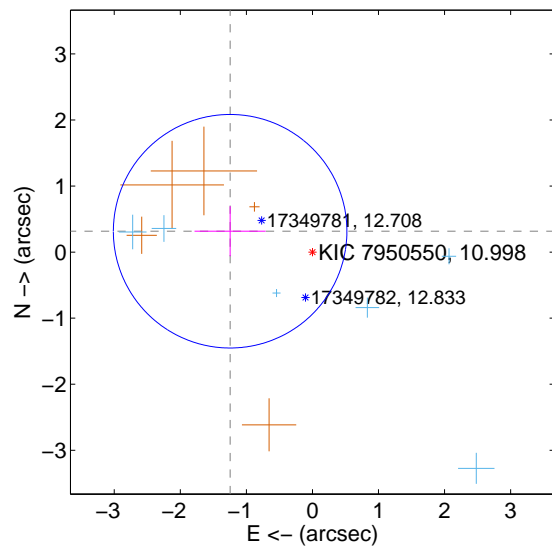
Supplemental centroid analysis for 007950550-10. **Kepler magnitude: 11.00.** Transit SNR 1.45

There are 7 quarters with good PRF difference image offsets

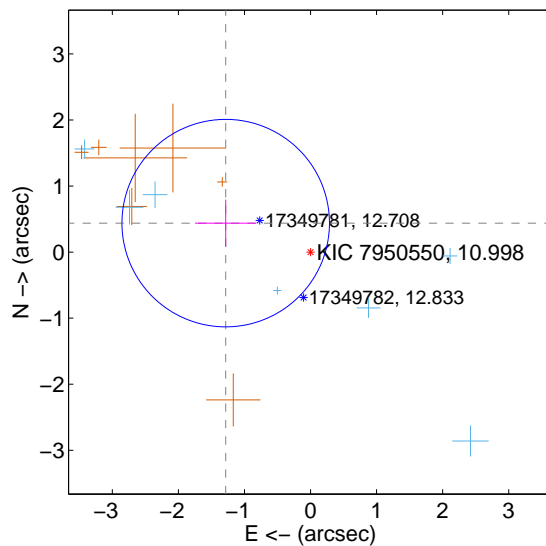
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.285 ± 0.589	2.18	1.245 ± 0.538	0.316 ± 0.379
PRF-fit source offset from KIC position	1.356 ± 0.523	2.59	1.284 ± 0.464	0.438 ± 0.357
photometric centroid source offset	0.67 ± 0.42	1.59	-0.50 ± 0.46	-0.45 ± 0.37

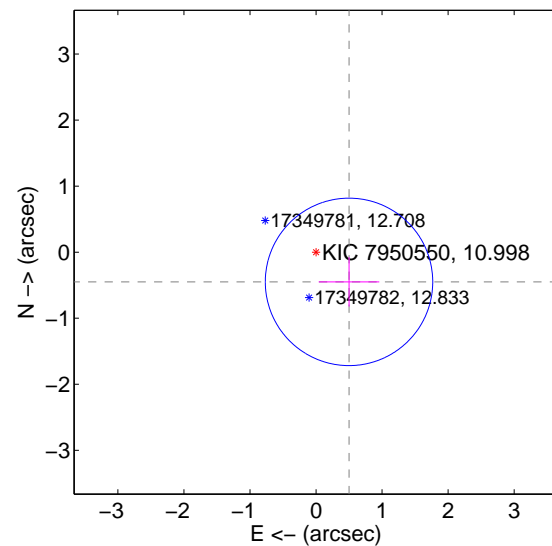
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

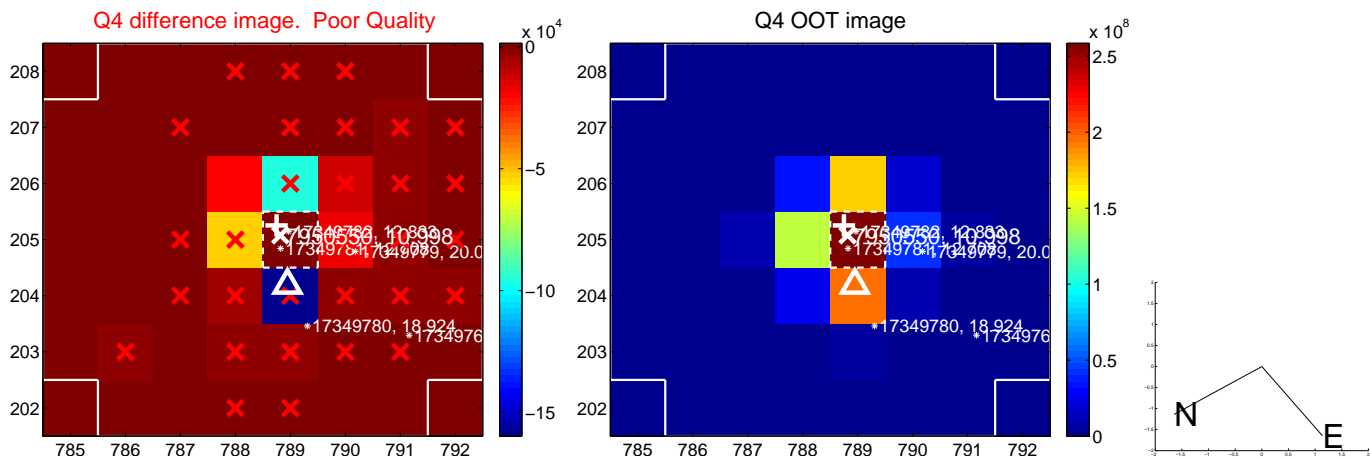
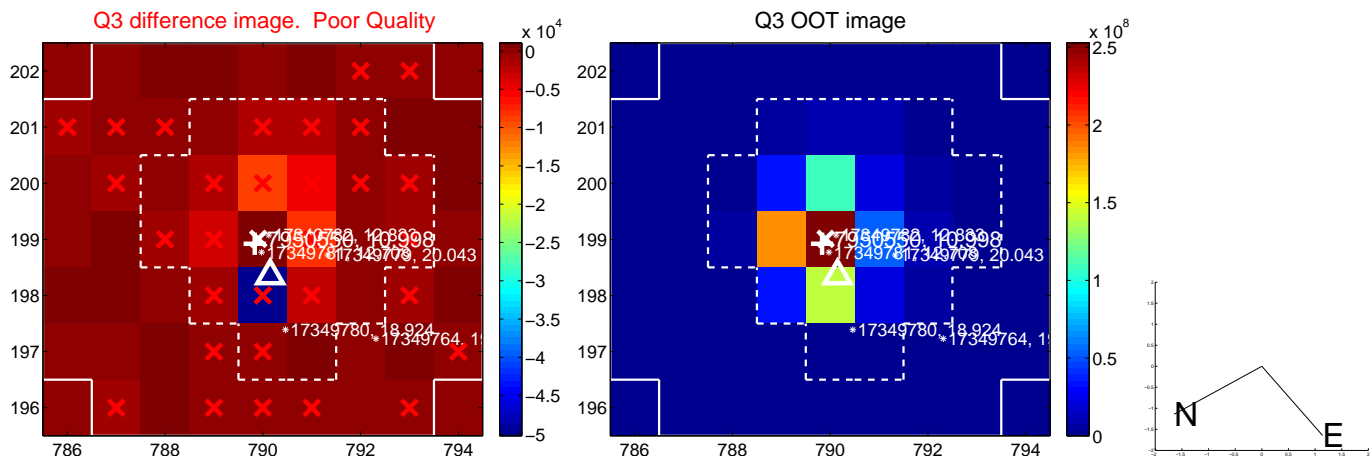
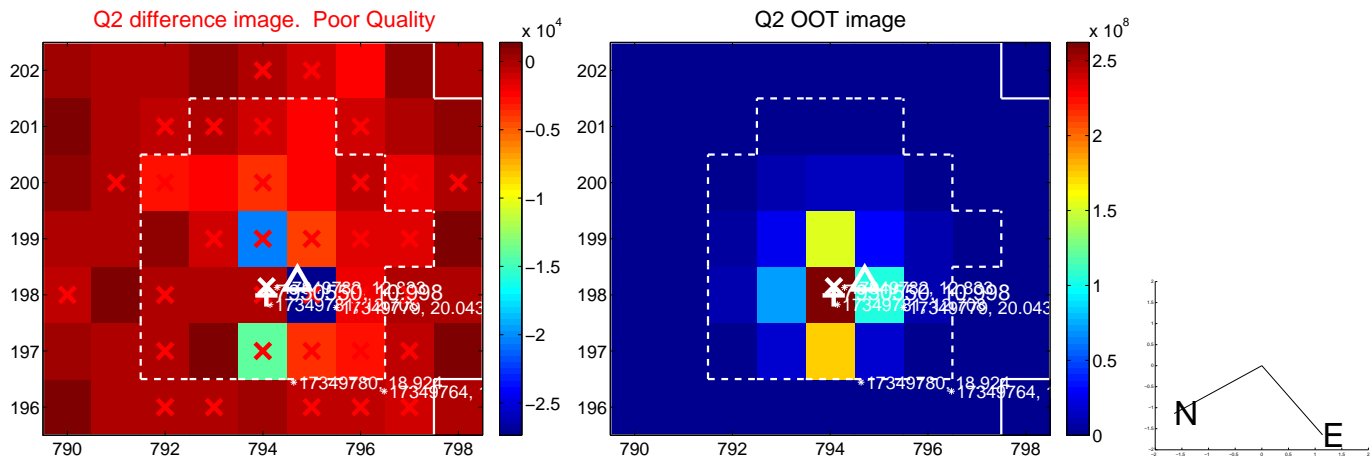
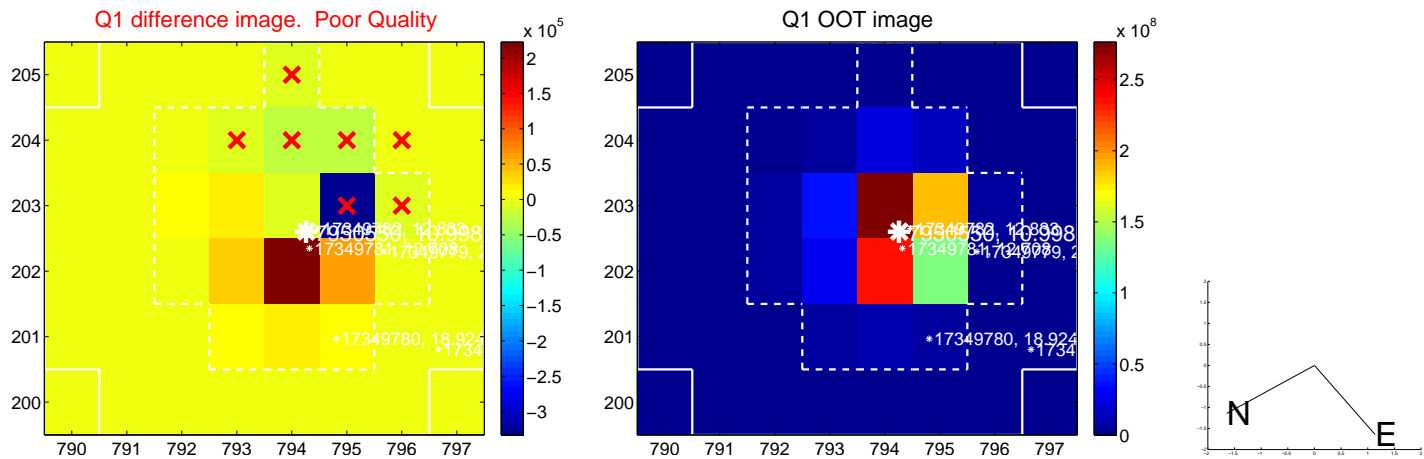


offset from photometric centroids

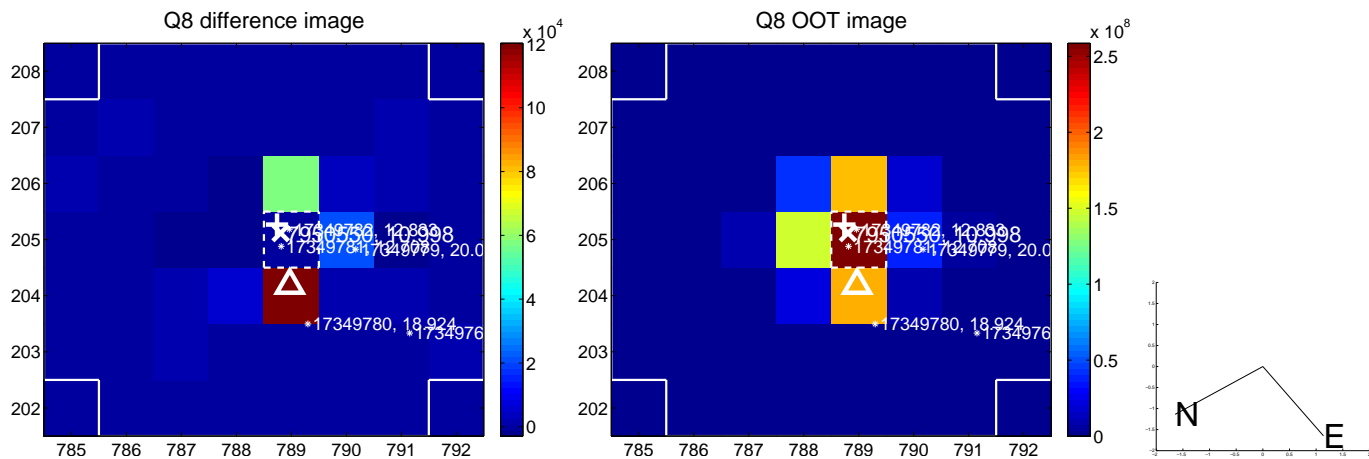
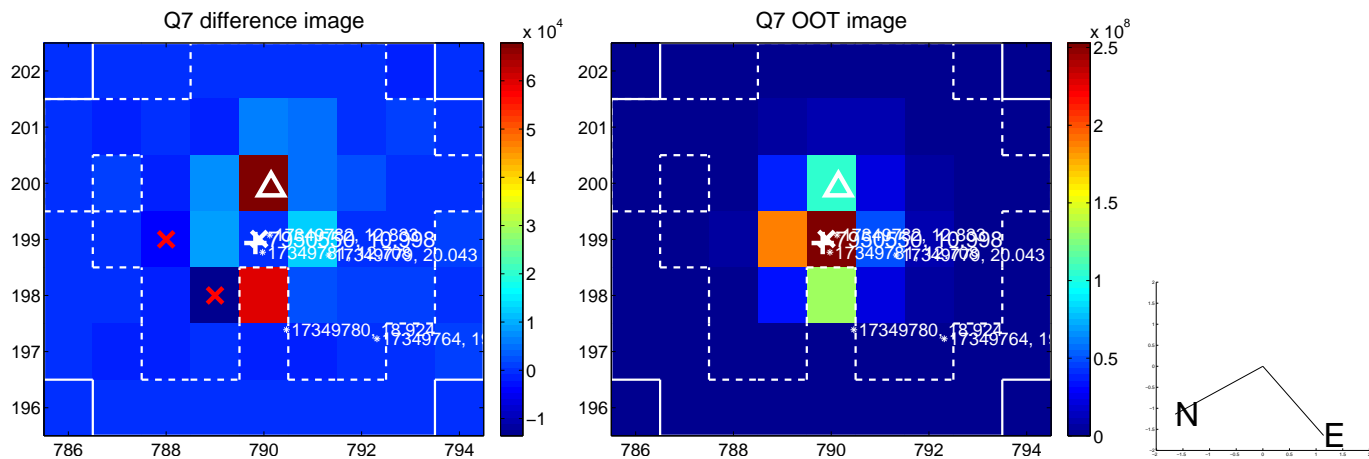
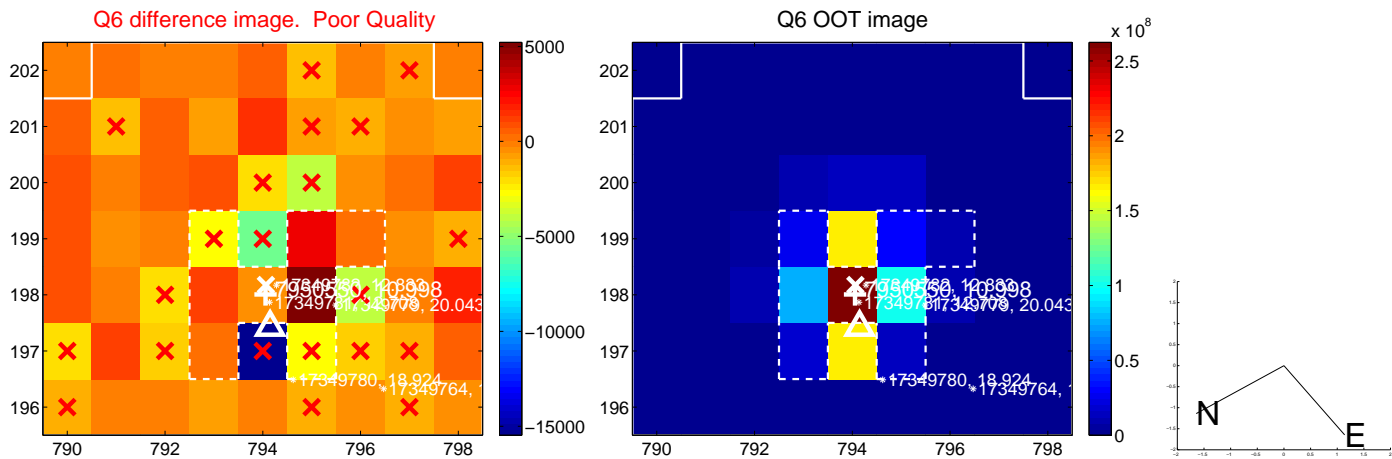
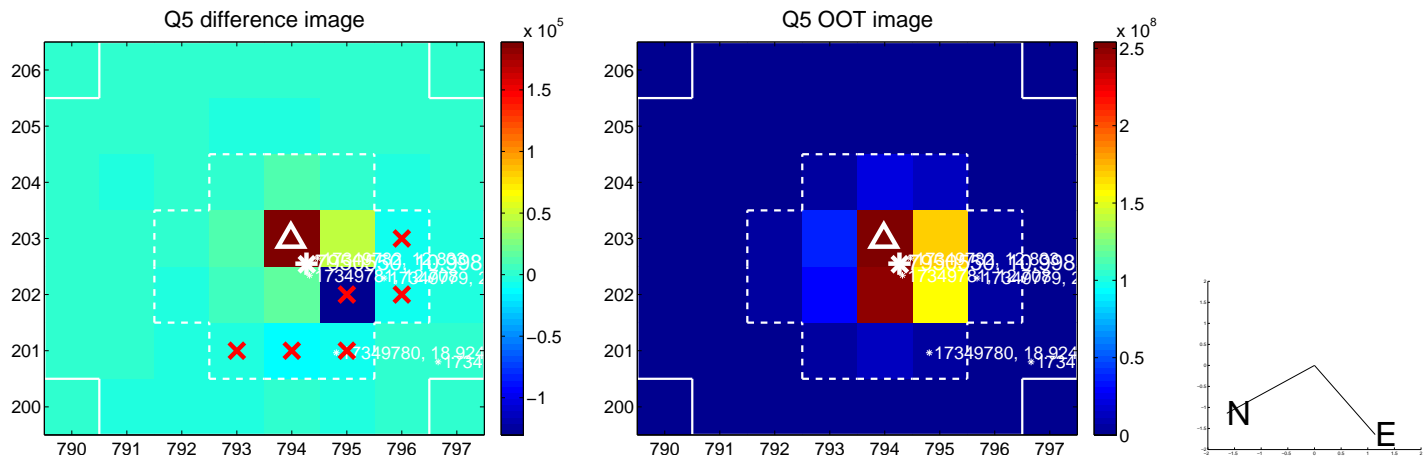


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

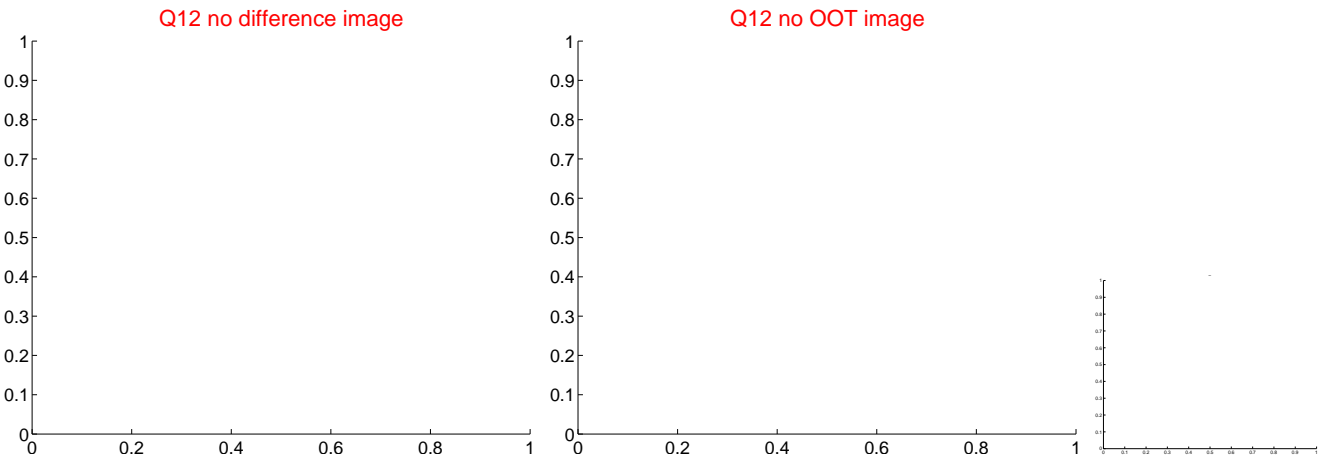
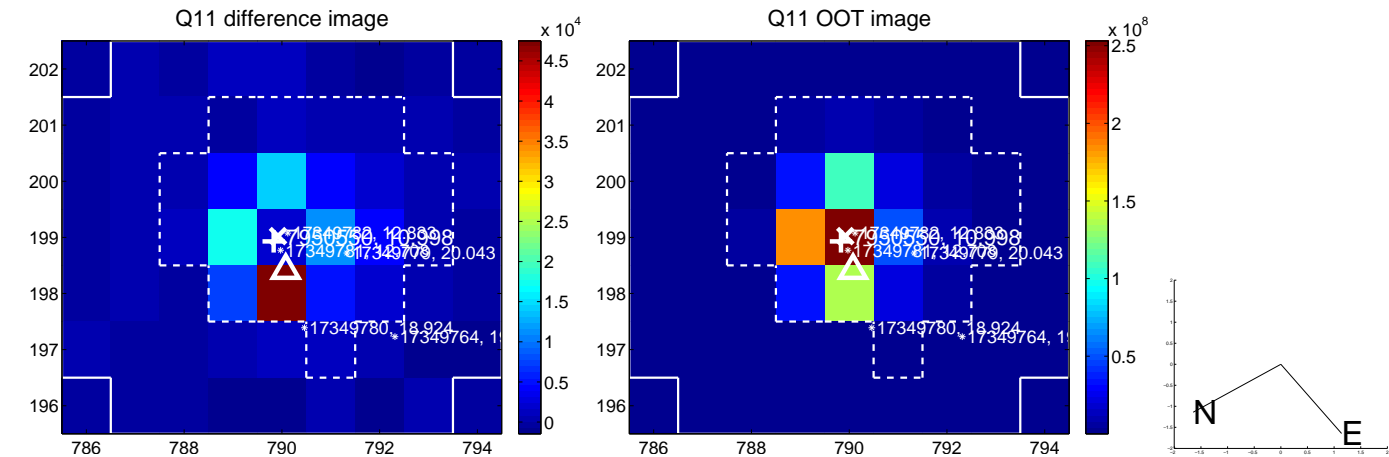
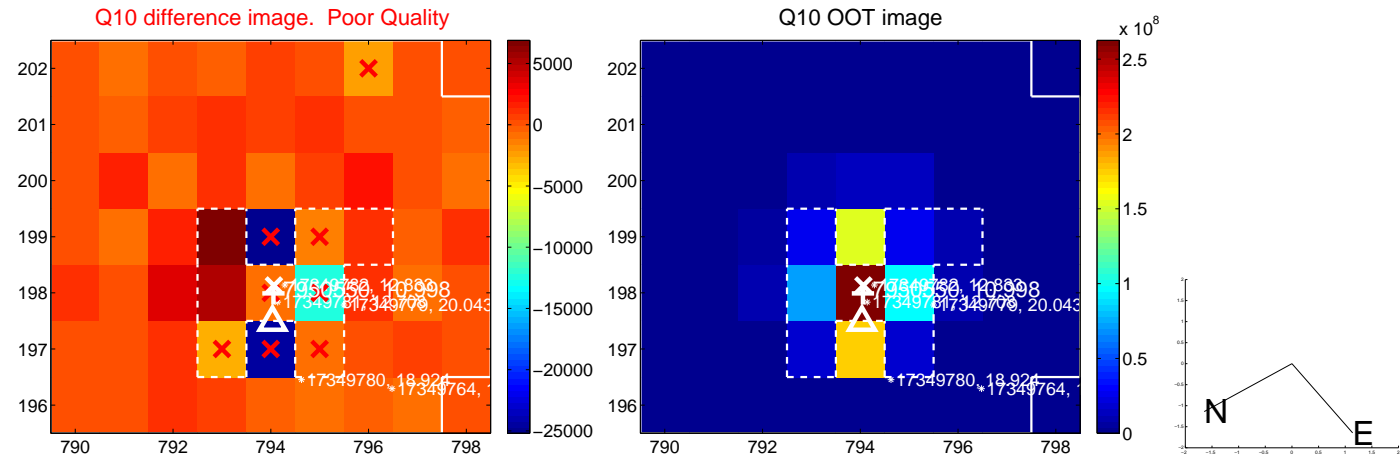
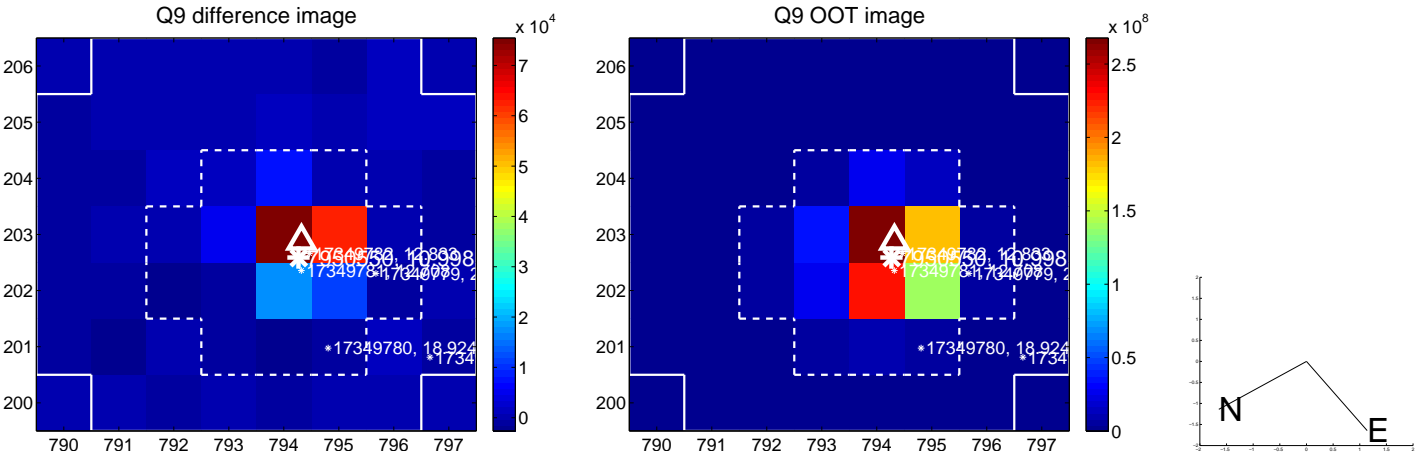
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



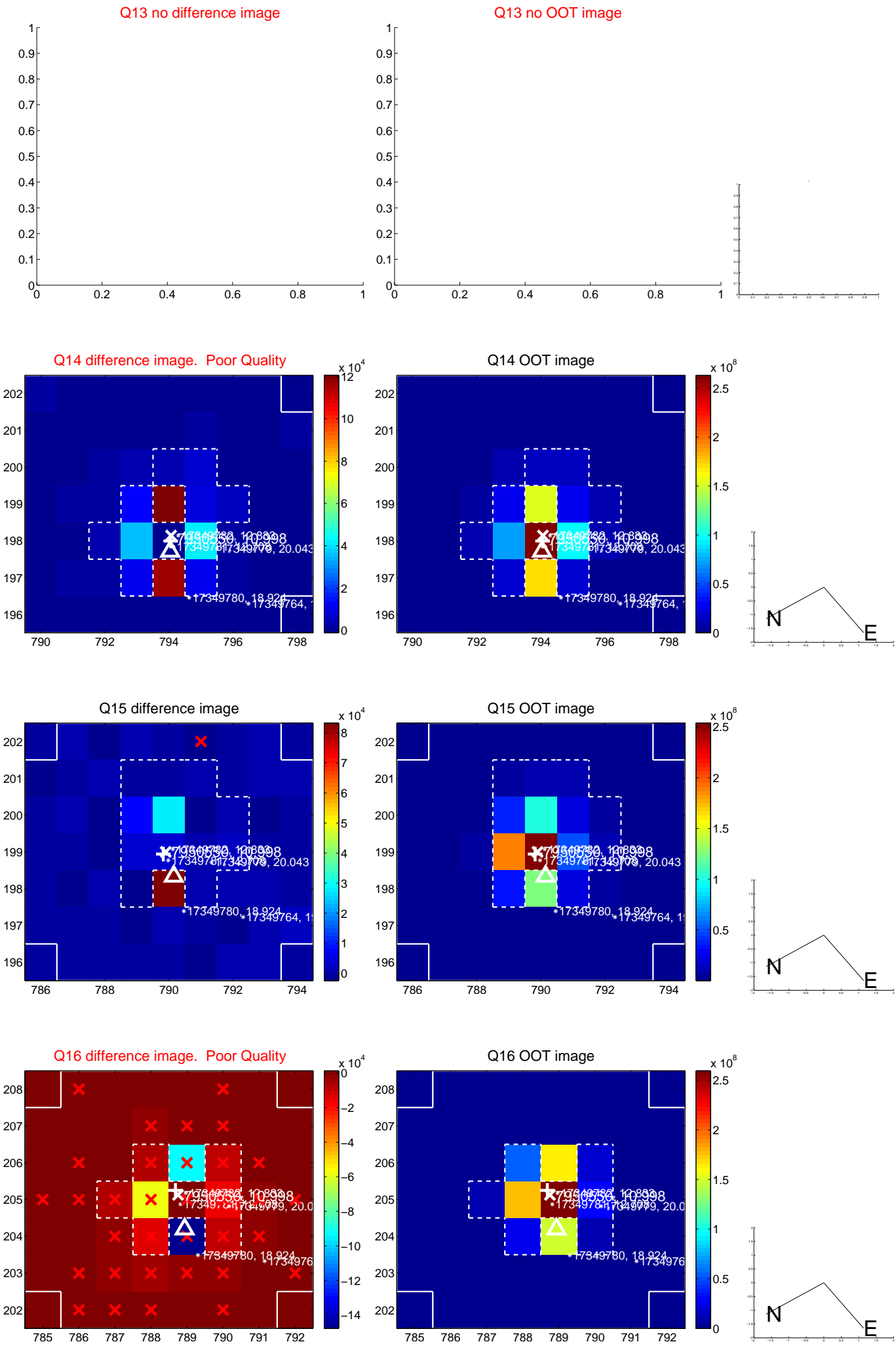
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



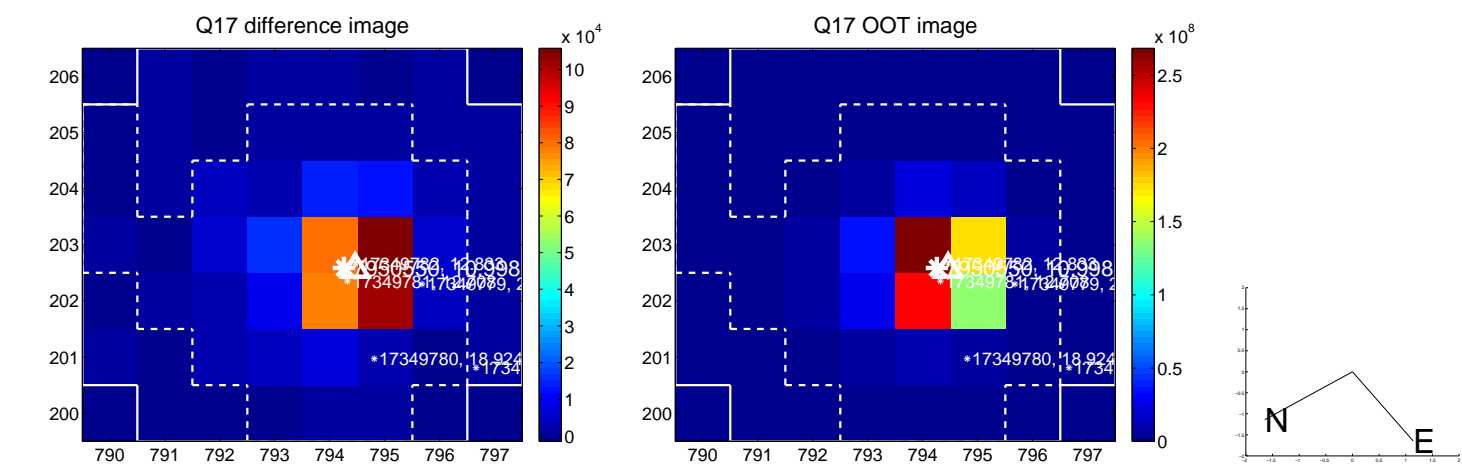
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



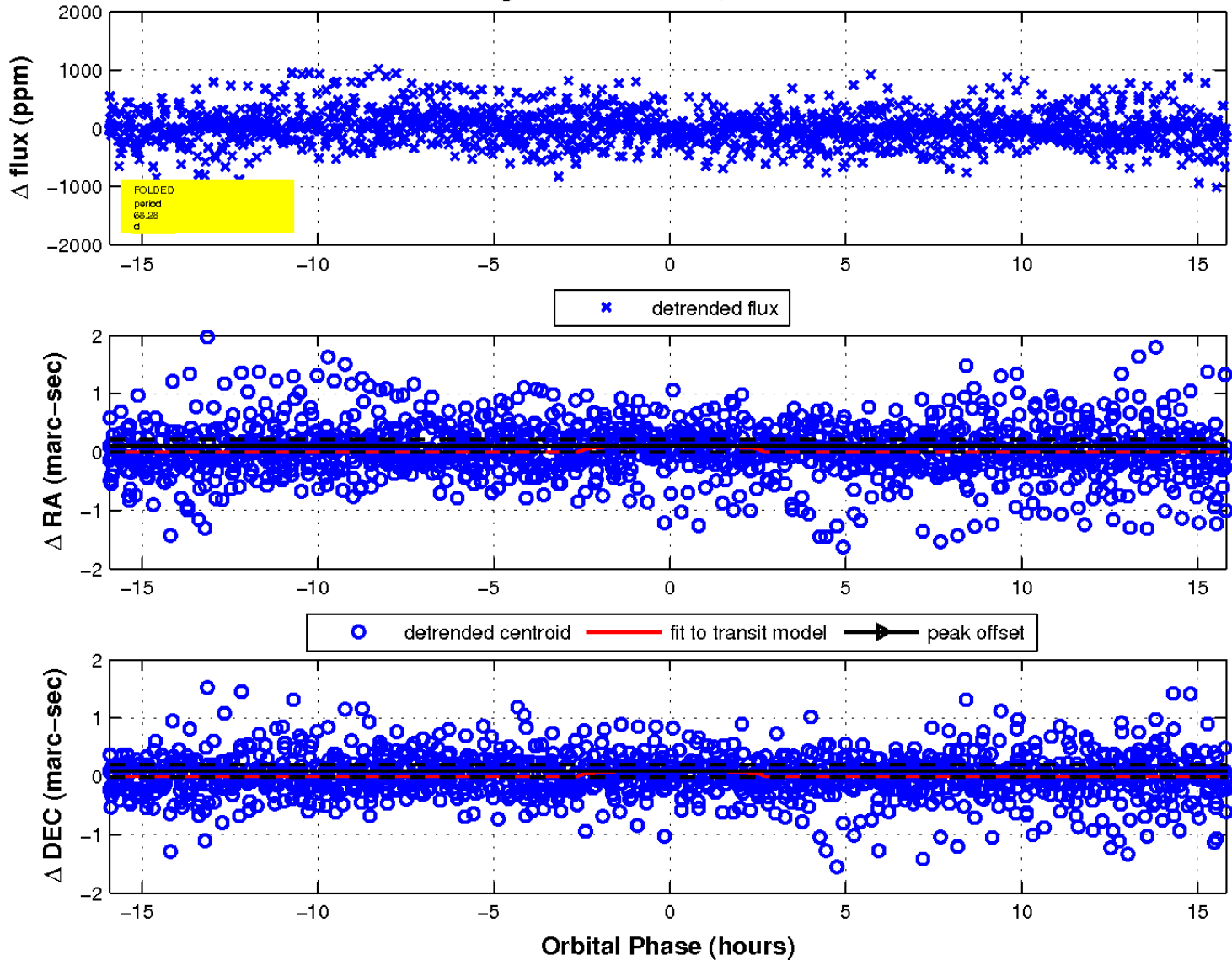
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 10 of 10



UKIRT Image

Declination

