

KIC 011349556

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})
011349556-01	OBS	No	1.692946	131.654327	94.8	10.749	10.0	11.5	0.35	3650	0.36	48.73
011349556-02	OBS	No	74.847656	155.754153	1510.0	5.463	25.2	10.4	0.35	3650	1.45	0.31
011349556-04	OBS	No	50.643544	132.657026	882.4	2.569	9.1	9.0	0.35	3650	1.11	0.53
011349556-05	OBS	No	85.309875	147.730851	556.7	7.288	10.1	5.3	0.35	3650	0.84	0.26
011349556-06	OBS	No	78.807260	134.518839	759.1	2.715	8.2	6.8	0.35	3650	1.00	0.29
011349556-07	OBS	No	57.324570	152.538208	334.2	9.091	8.4	4.0	0.35	3650	0.67	0.45

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011349556-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
011349556-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011349556-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
011349556-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011349556-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
011349556-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT

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

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

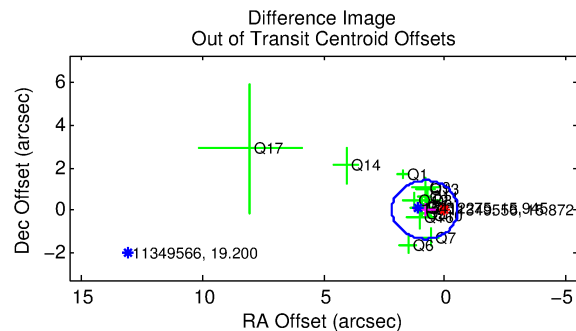
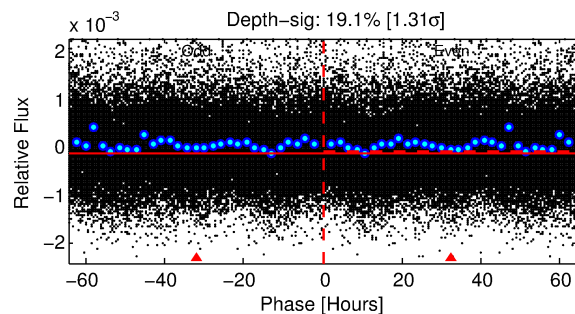
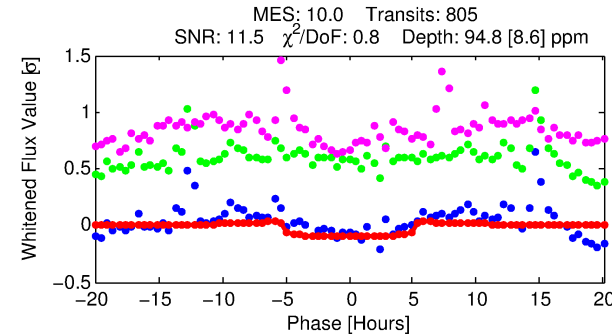
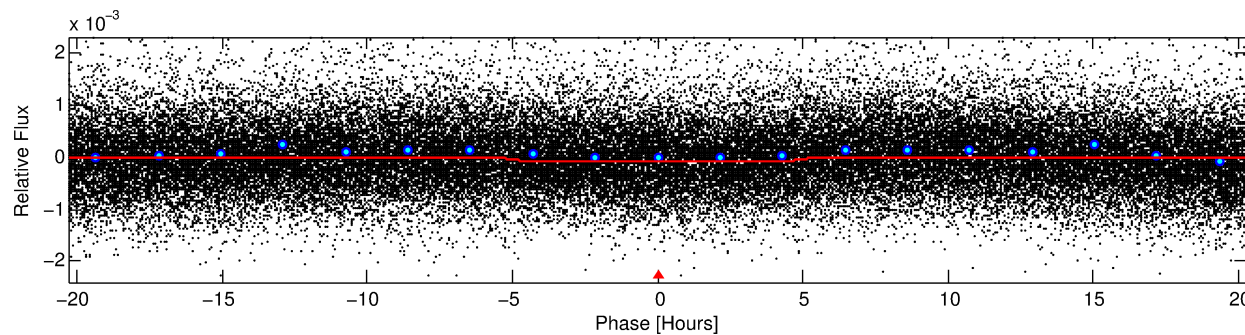
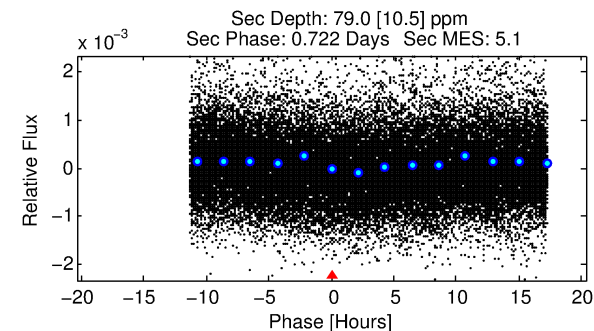
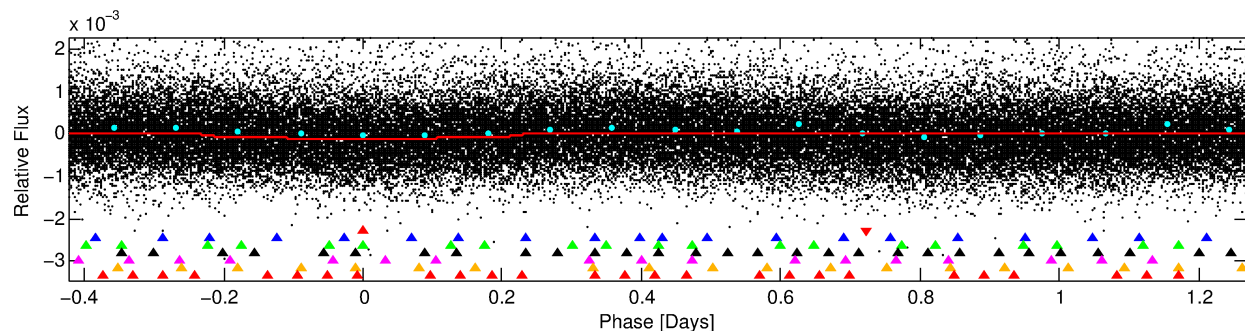
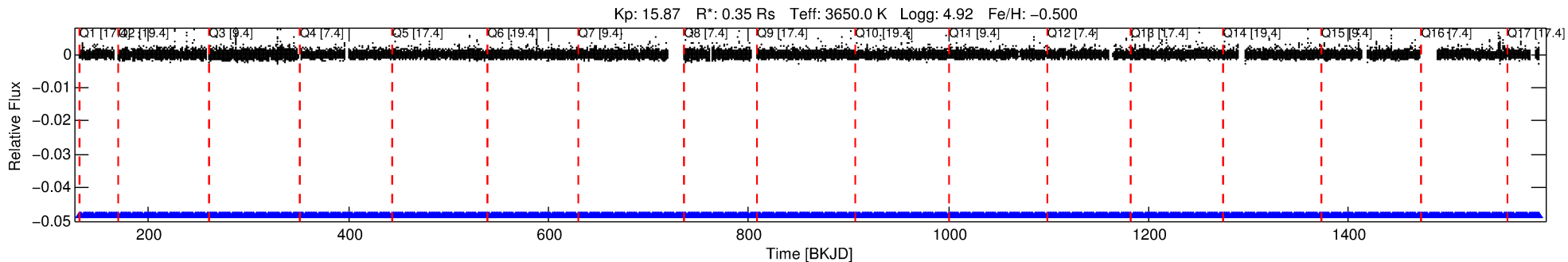
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011349556-01

No Significant Match Found

DV One-Page Summary

KIC: 11349556 Candidate: 1 of 7 Period: 1.693 d



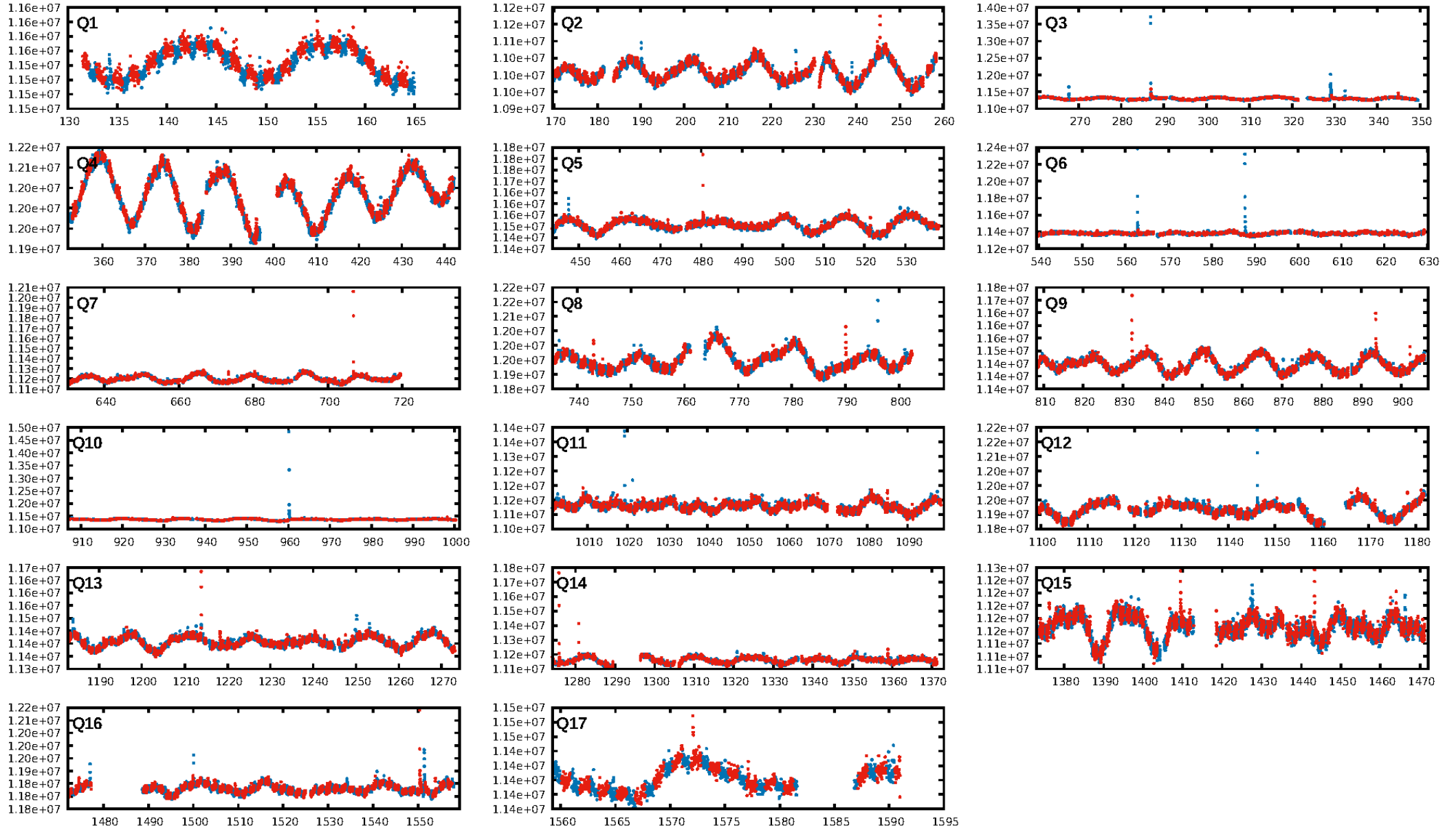
DV Fit Results:

Period = 1.69295 [0.00002] d
Epoch = 131.6543 [0.0063] BKJD
Rp/R* = 0.0094 [0.0047]
a/R* = 1.22 [1.06]
b = 0.67 [2.17]
Seff = 48.73 [4.91]
Teq = 674 [17] K
Rp = 0.36 [0.18] Re
a = 0.0199 [0.0014] AU
Ag = 133.45 [134.75] [0.98 σ]
Teffp = 3540 [892] K [3.21 σ]

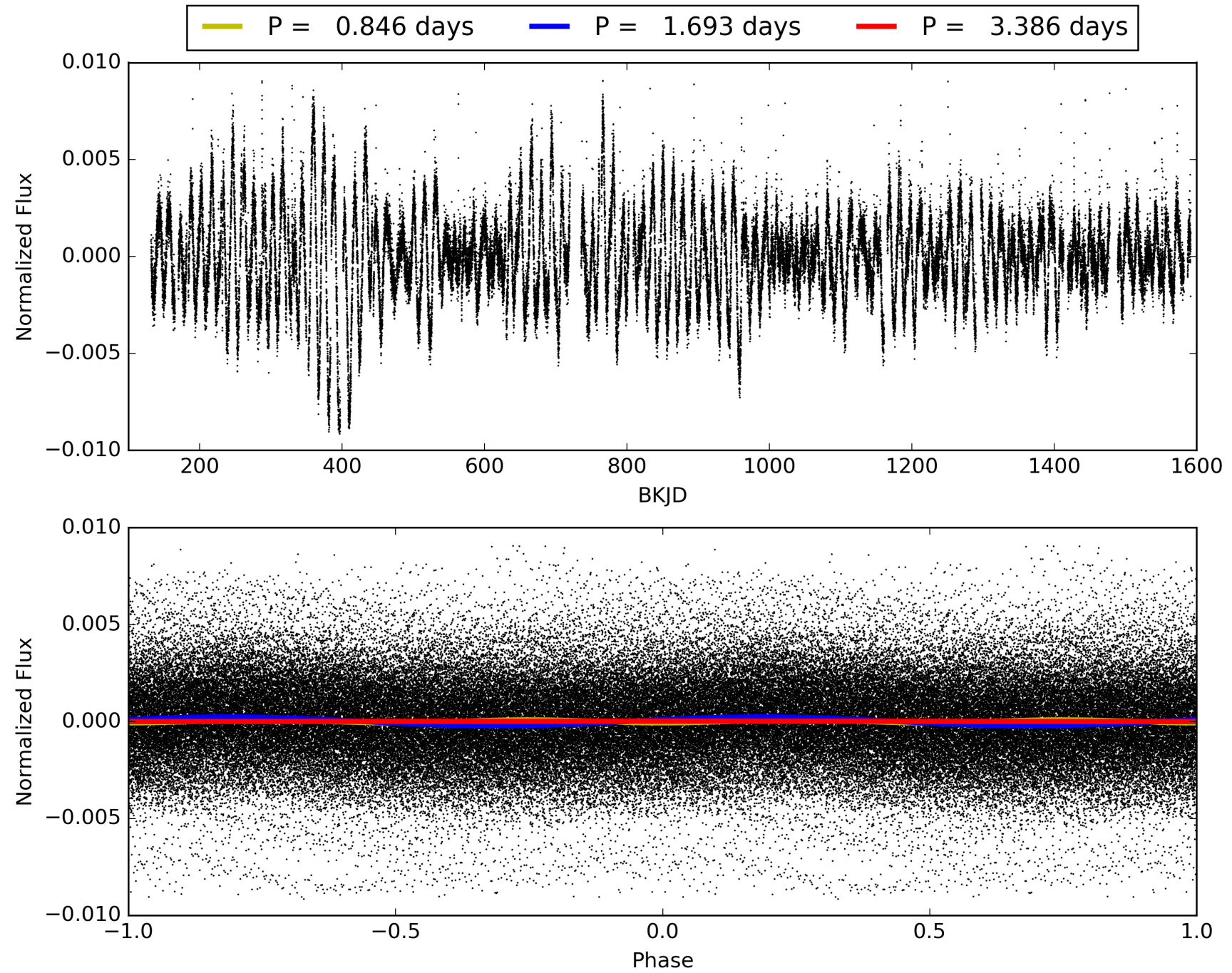
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [106.30 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.00e-13
RollingBand-fgt: 1.00 [769/769]
GhostDiagnostic-chr: 5.942
Centroid-sig: 32.7%
Centroid-so: 0.788 arcsec [1.06 σ]
OotOffset-rm: 0.819 arcsec [1.80 σ]
KicOffset-rm: 0.817 arcsec [1.69 σ]
OotOffset-st: 4/3/4/5 [16]
KicOffset-st: 4/3/4/5 [16]
DiffImageQuality-fgm: 0.56 [9/16]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 011349556-01, PDC Light Curves

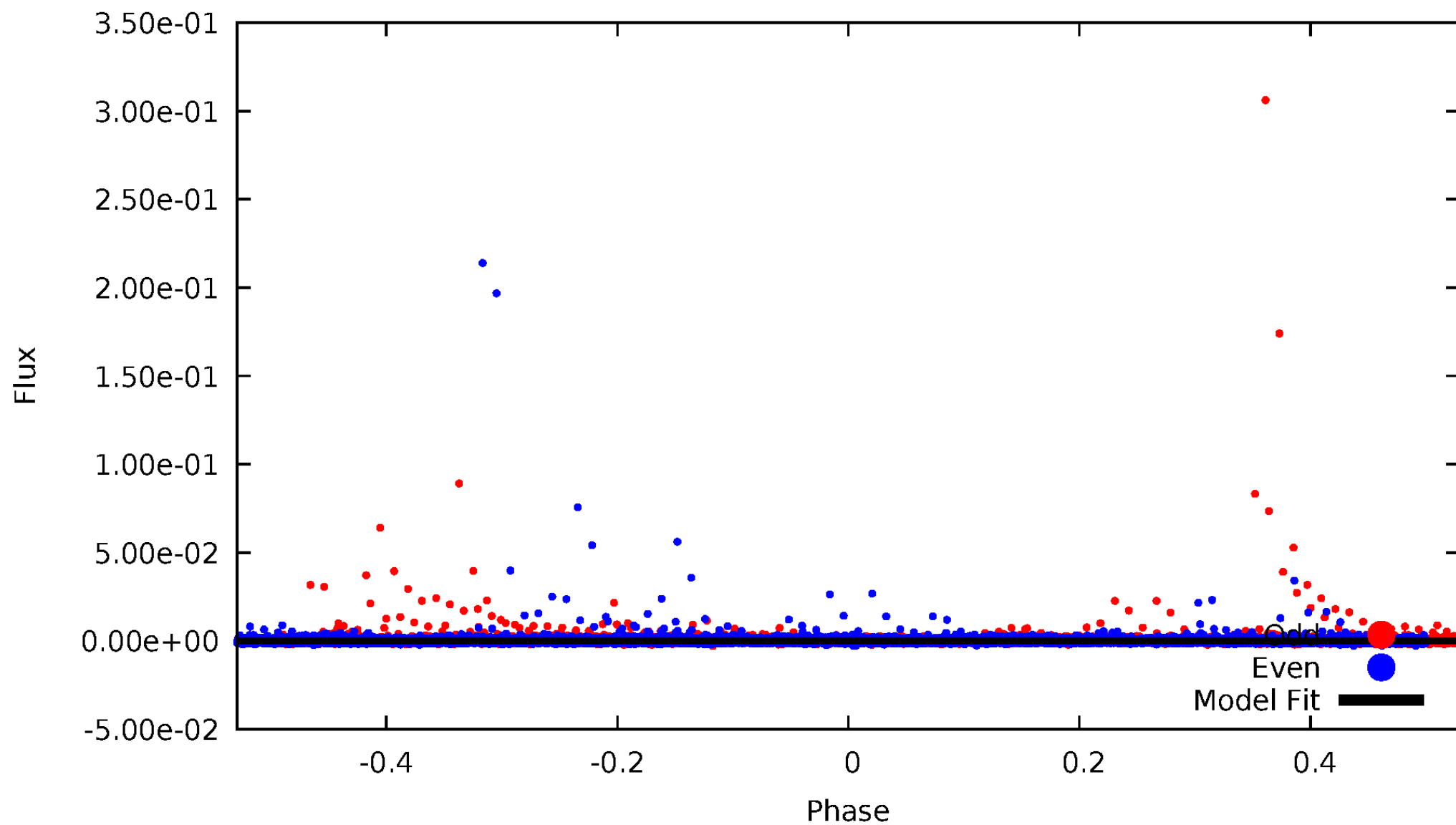


TCE 011349556-01



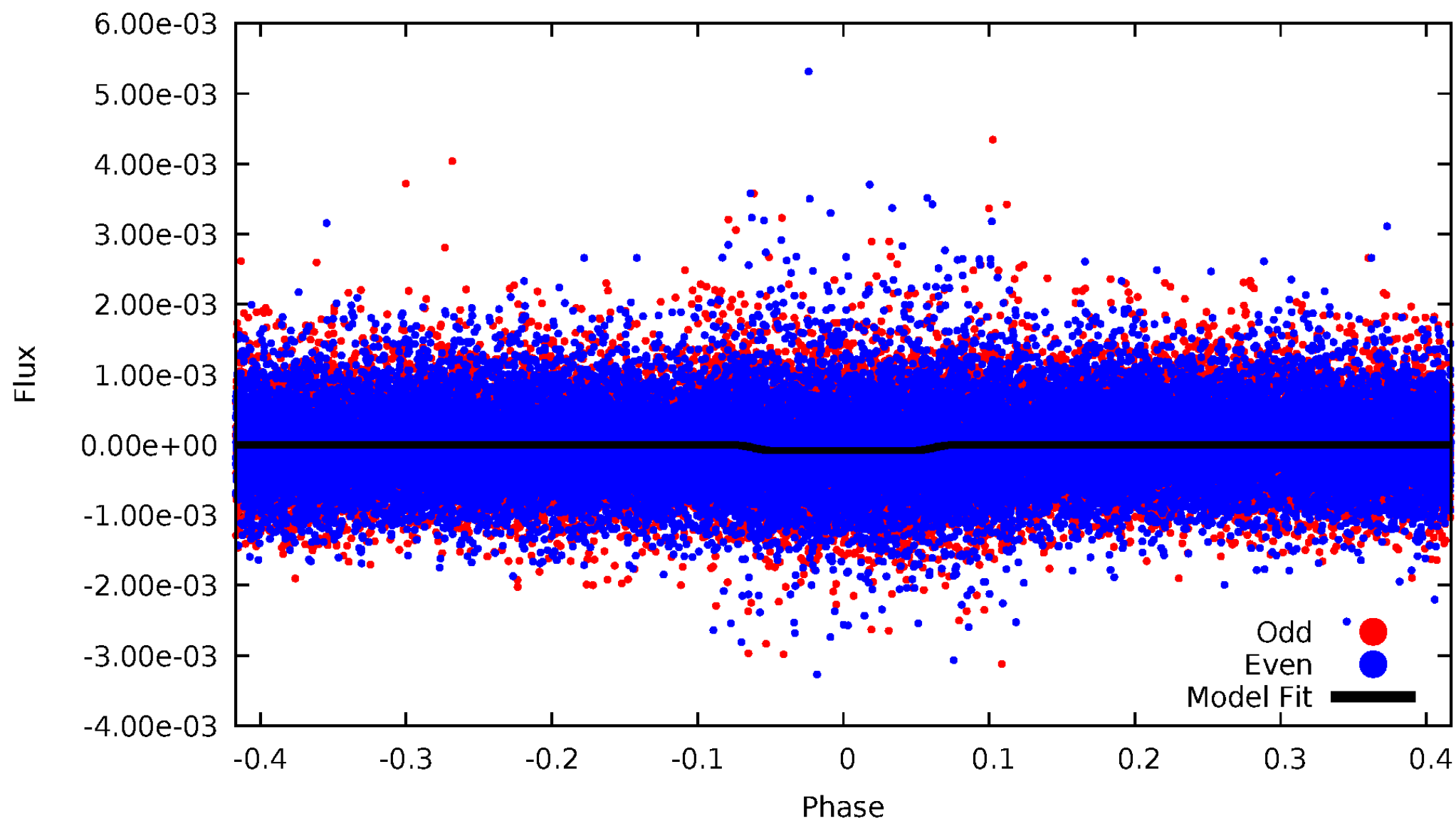
DV Odd/Even

TCE 011349556-01

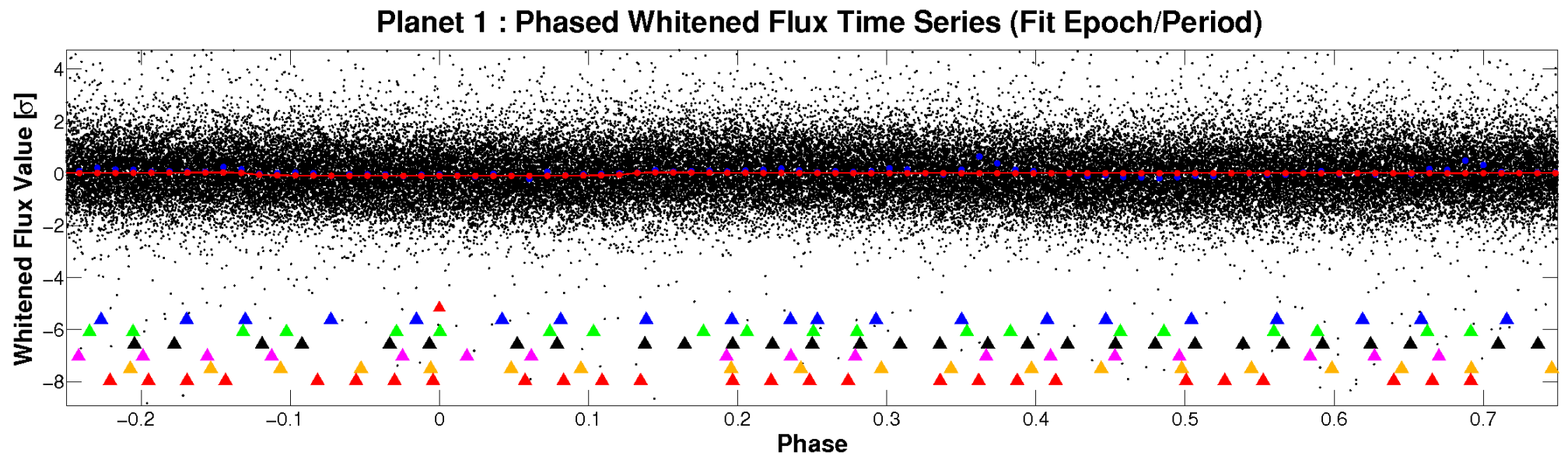
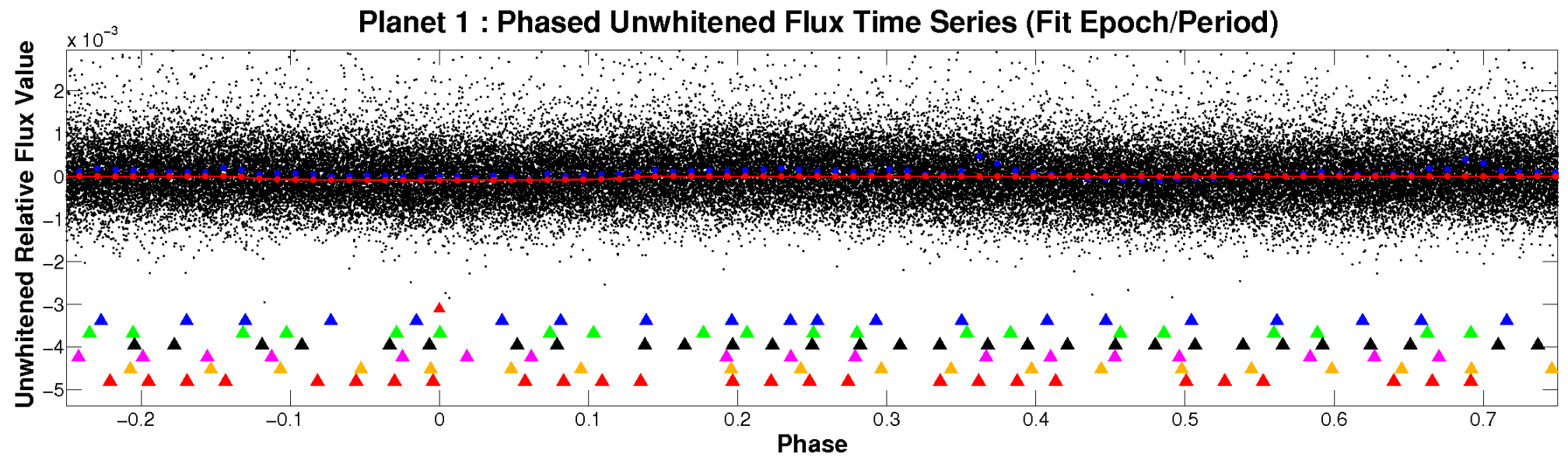


ALT Odd/Even

TCE 011349556-01

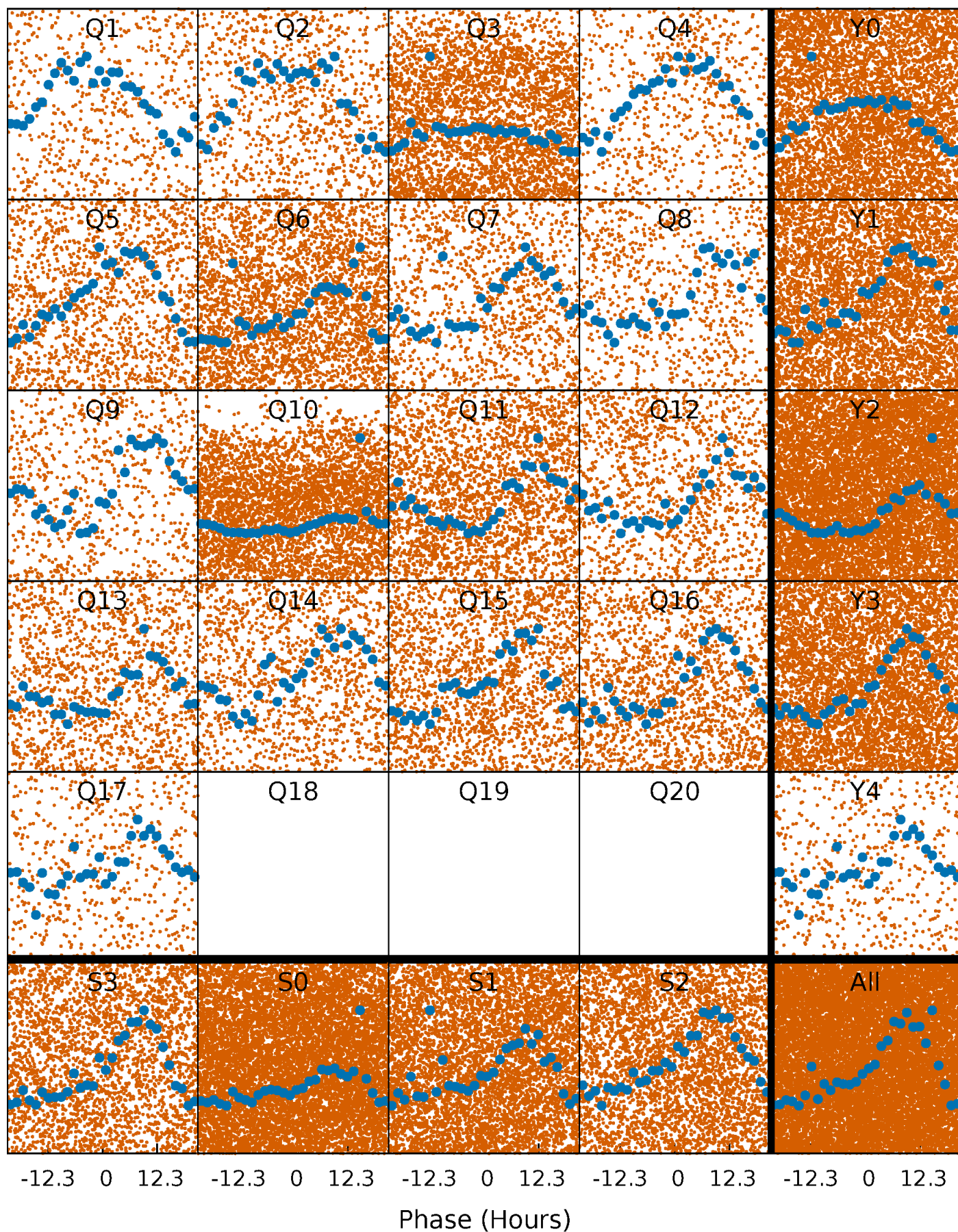


Non-Whitened Vs. Whitened Light Curve



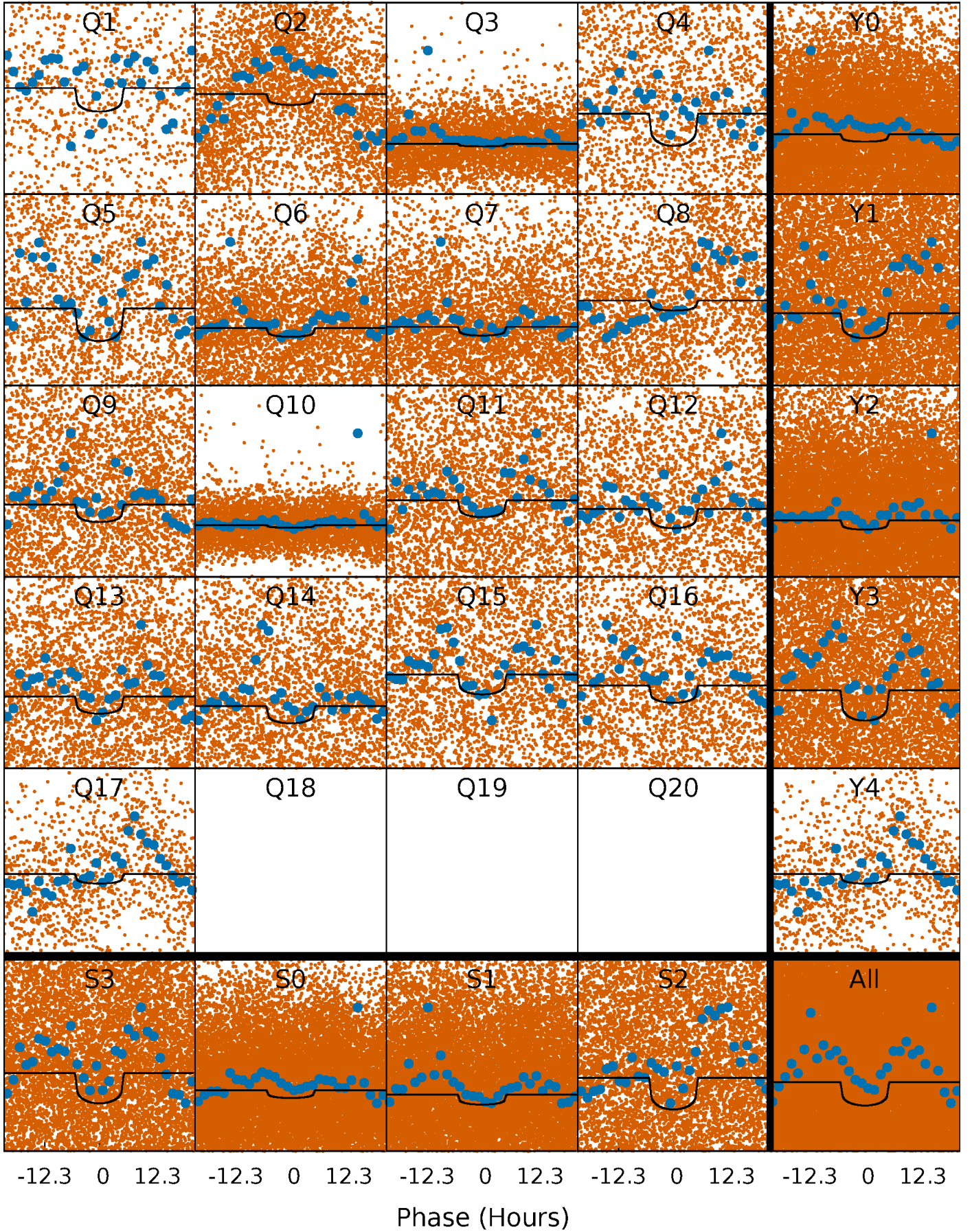
PDC Quarter-Phased Transit Curves

TCE 011349556-01 P= 1.692946 Days $T_0=131.654327$ (BKJD)



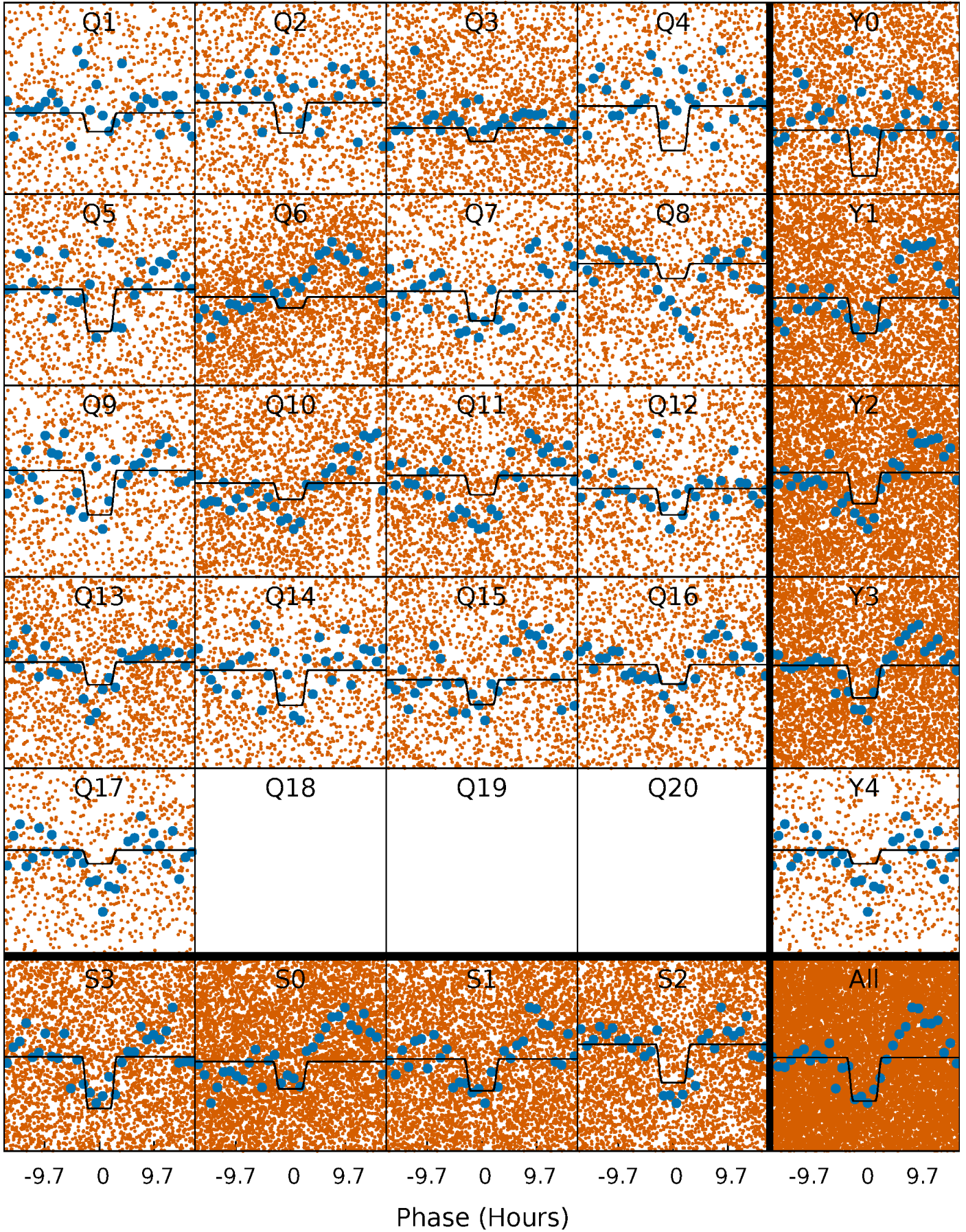
DV Quarter-Phased Transit Curves

TCE 011349556-01 P= 1.692946 Days $T_0=131.654327$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

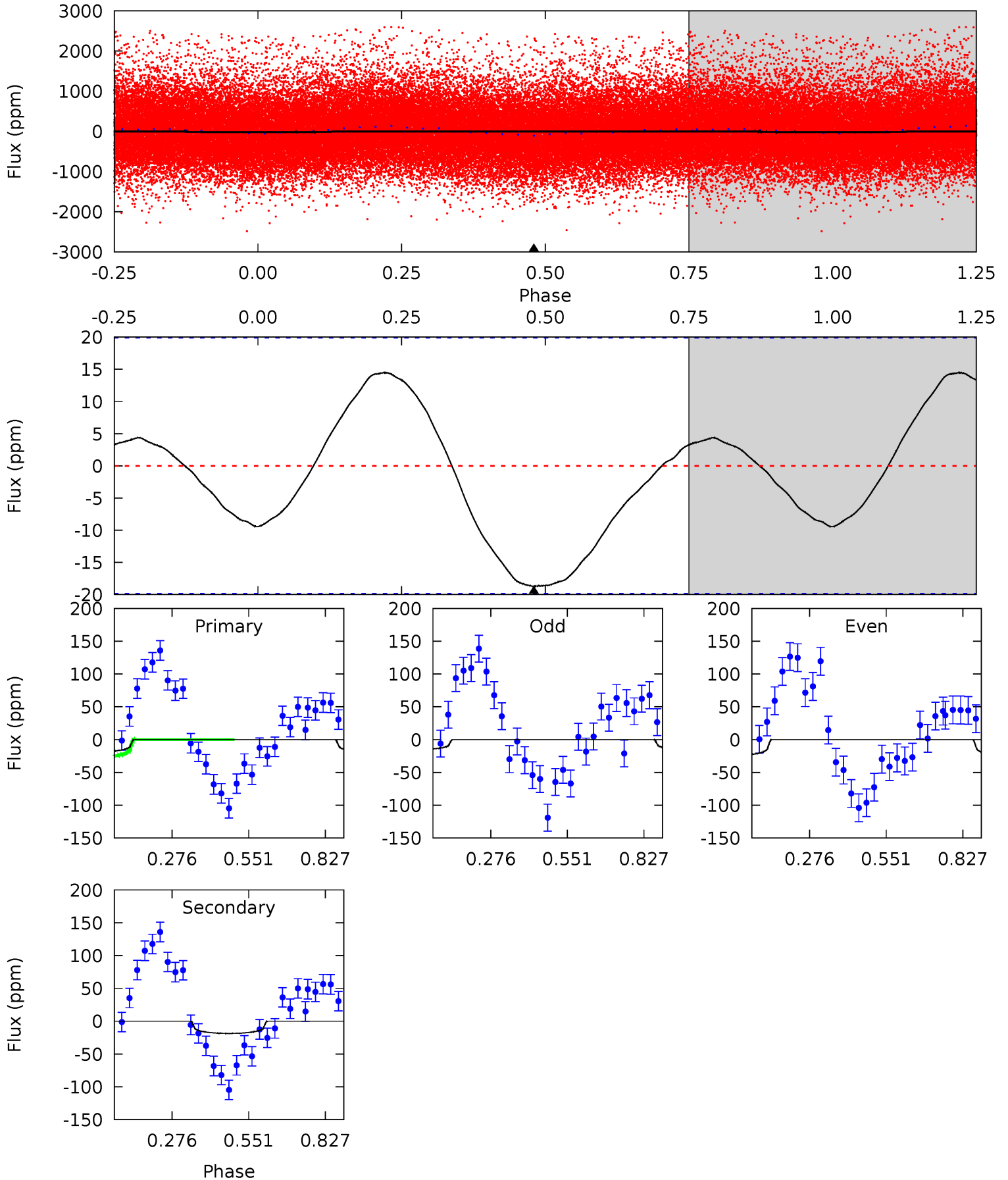
TCE 011349556-01 P= 1.693068 Days $T_0=131.612511$ (BKJD)



DV Model-Shift Uniqueness Test

011349556-01, P = 1.692946 Days, E = 129.961381 Days

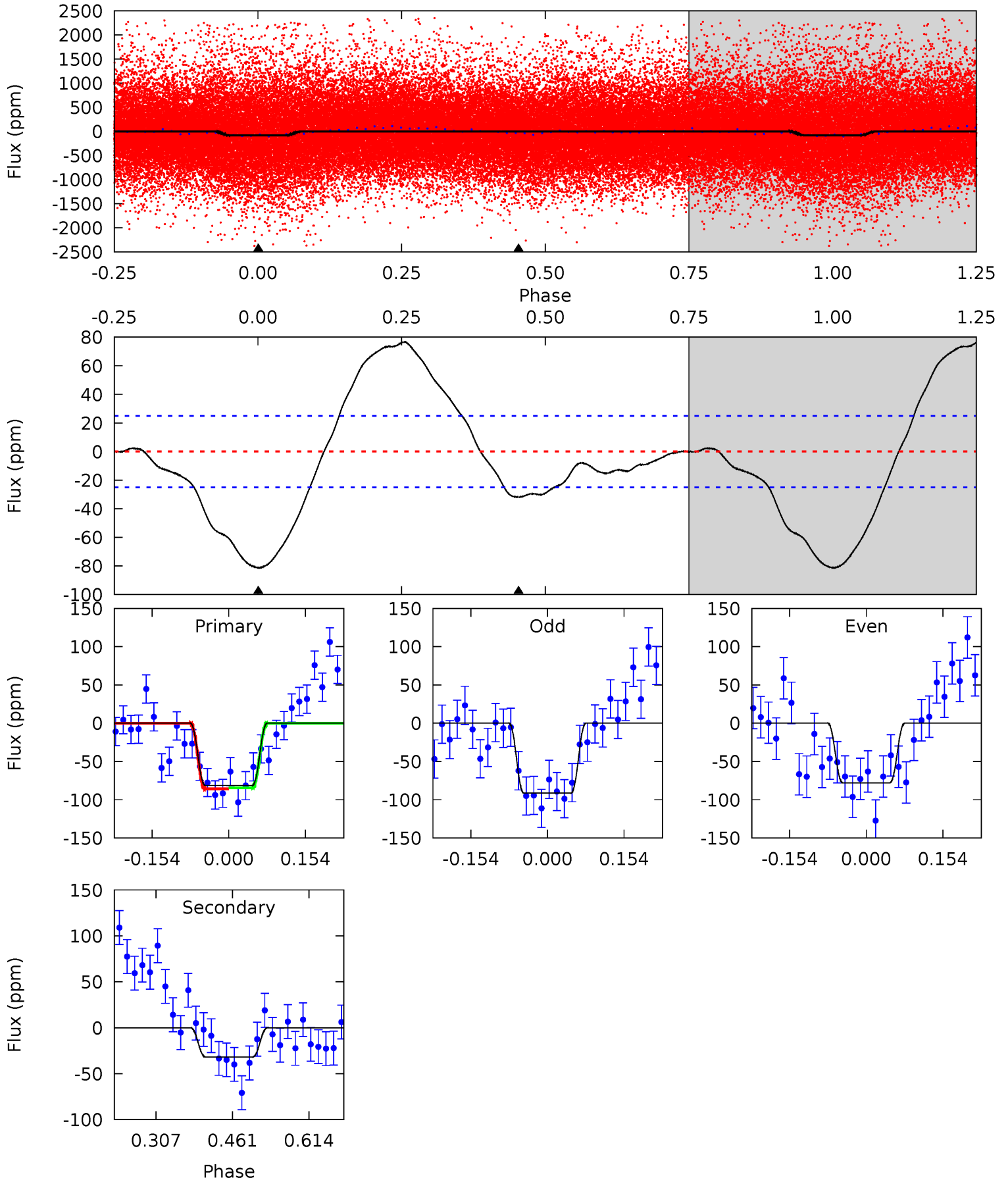
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.08	4.08	0	0	4.35	1.09	1.42	4.08	4.08	4.08	4.08	1.00	-0.62	0.44	1.60



Alt Model-Shift Uniqueness Test

011349556-01, P = 1.693068 Days, E = 129.919443 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.6	5.70	0	0	4.47	1.43	6.35	14.6	14.6	5.70	5.70	1.20	0.85	0.49	0.13



Stellar Parameters For KIC 011349556

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3650^{+43}_{-49}	$4.919^{+0.036}_{-0.036}$	$-0.500^{+0.100}_{-0.100}$	$0.349^{+0.030}_{-0.034}$	$0.370^{+0.029}_{-0.043}$	$12.220^{+2.307}_{-1.762}$
	+1%/-1%	+1%/-1%	+20%/-20%	+9%/-10%	+8%/-12%	+19%/-14%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 011349556-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-19 ± 5	$0.37^{+0.17}_{-0.18}$	942^{+18}_{-20}	2864^{+593}_{-280}	30^{+76}_{-17}
Alt.	-32 ± 6	$0.35^{+0.18}_{-0.17}$	942^{+18}_{-20}	3129^{+719}_{-360}	56^{+151}_{-32}

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 $A_{obs} \gg 1.0$

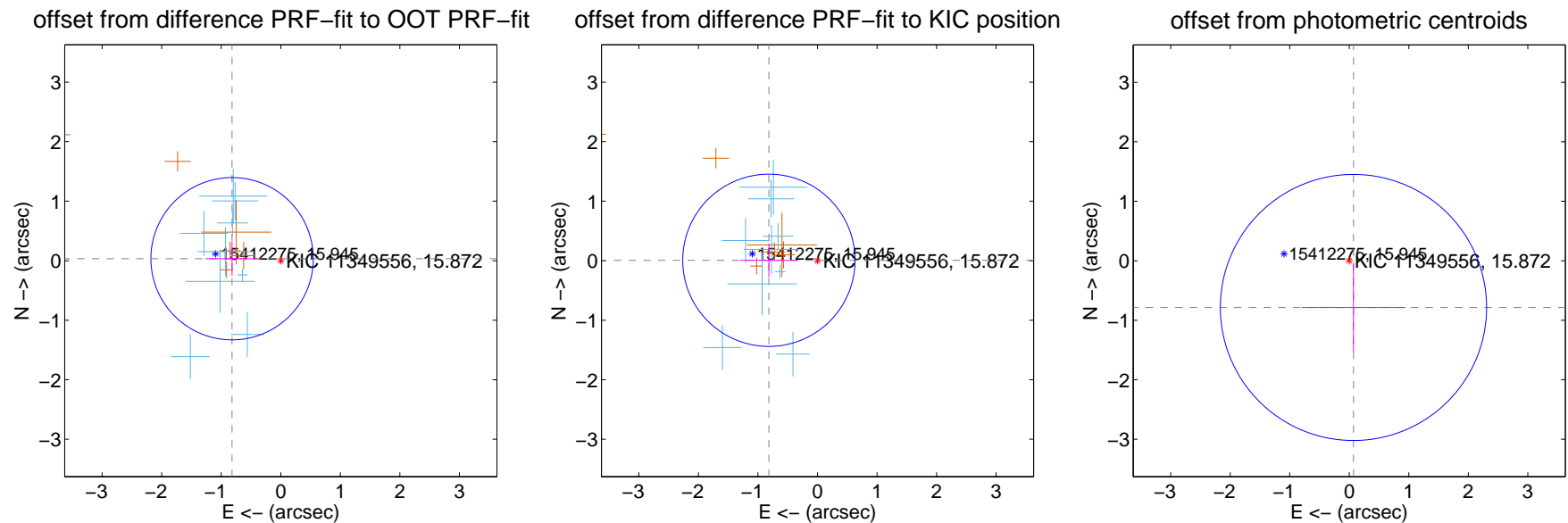
DV Centroid Data

Supplemental centroid analysis for 011349556-01. Kepler magnitude: 15.87. Transit SNR 11.53

There are 9 quarters with good PRF difference image offsets

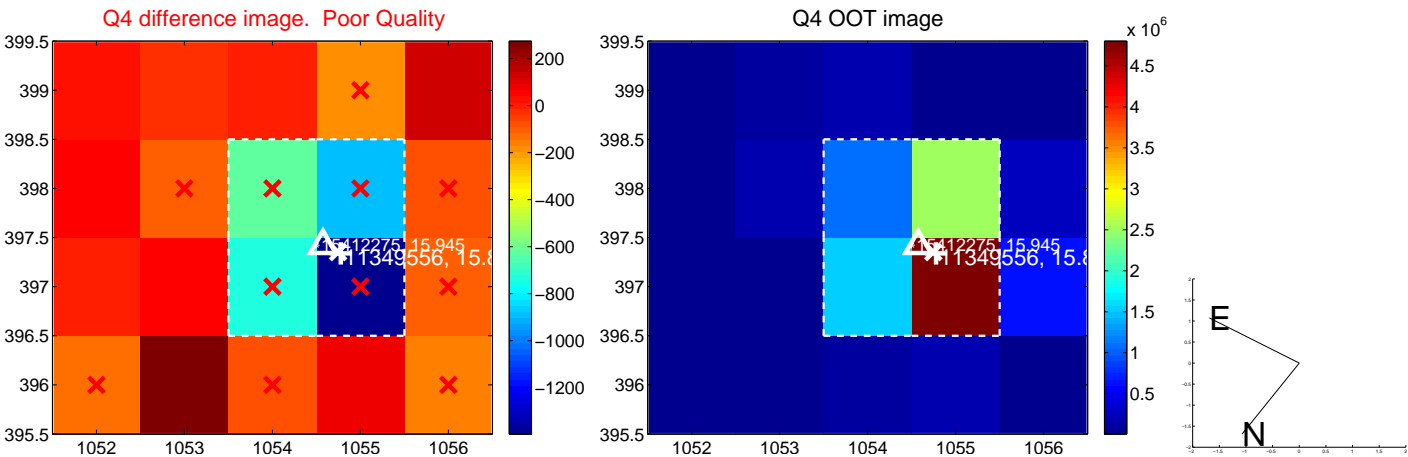
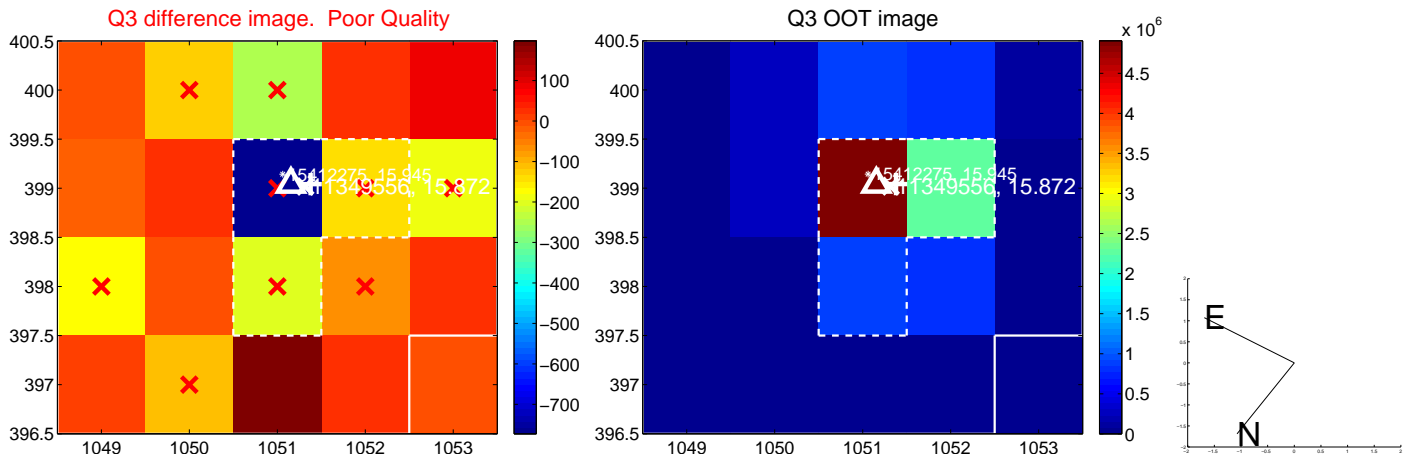
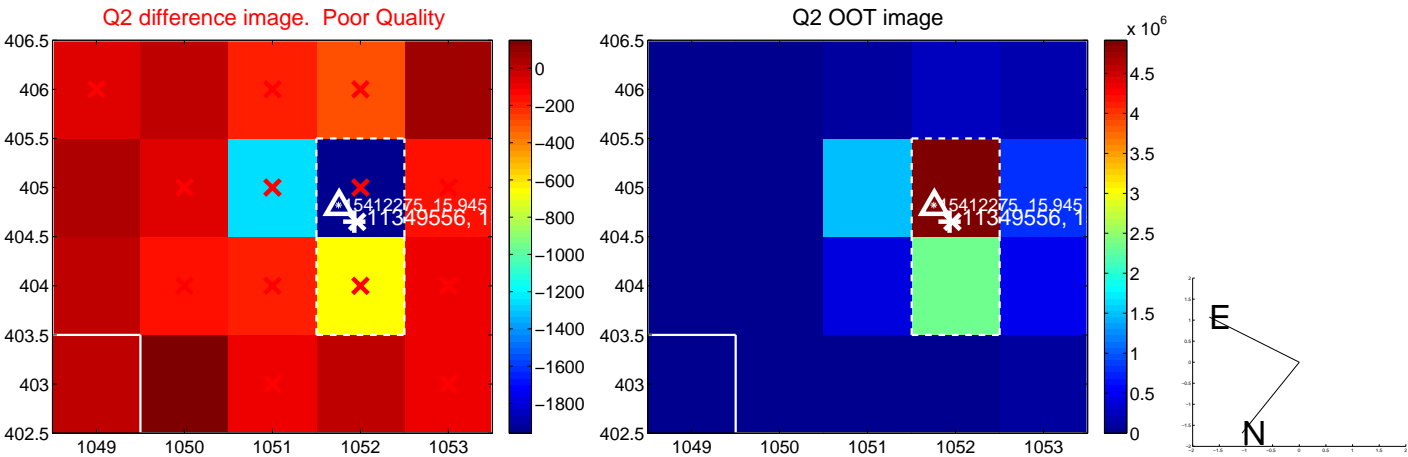
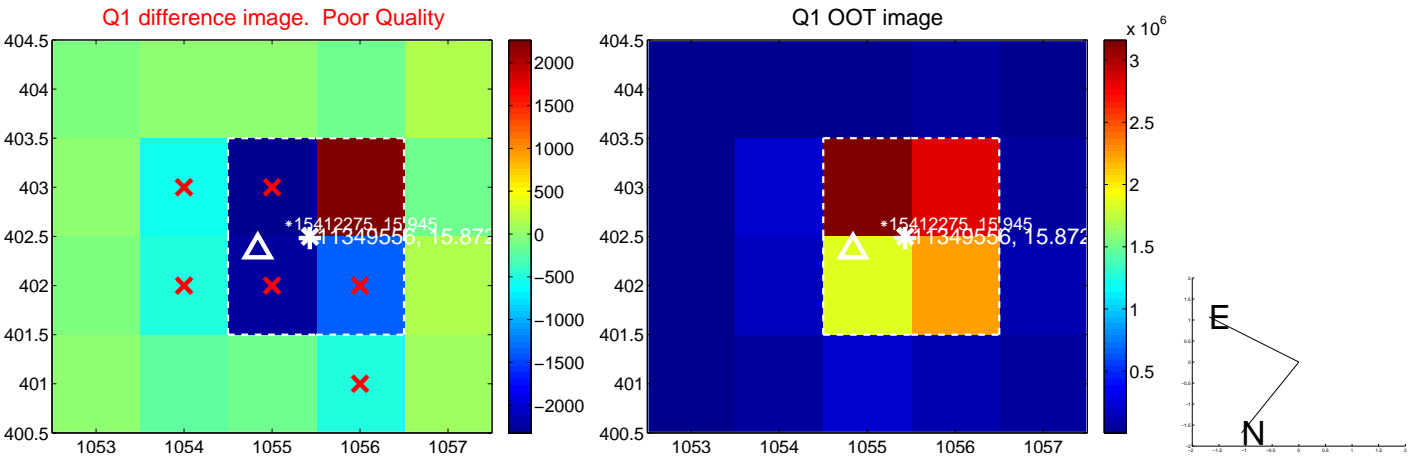
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.819 ± 0.455	1.80	0.818 ± 0.447	0.033 ± 0.287
PRF-fit source offset from KIC position	0.817 ± 0.482	1.69	0.817 ± 0.481	0.007 ± 0.285
photometric centroid source offset	0.79 ± 0.75	1.06	-0.07 ± 0.87	-0.79 ± 0.74

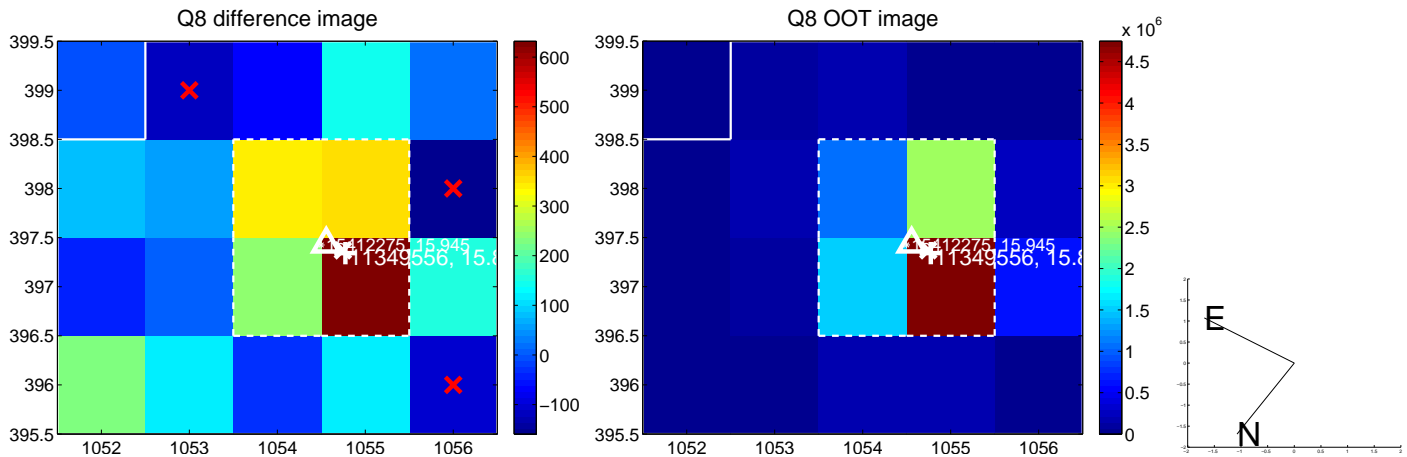
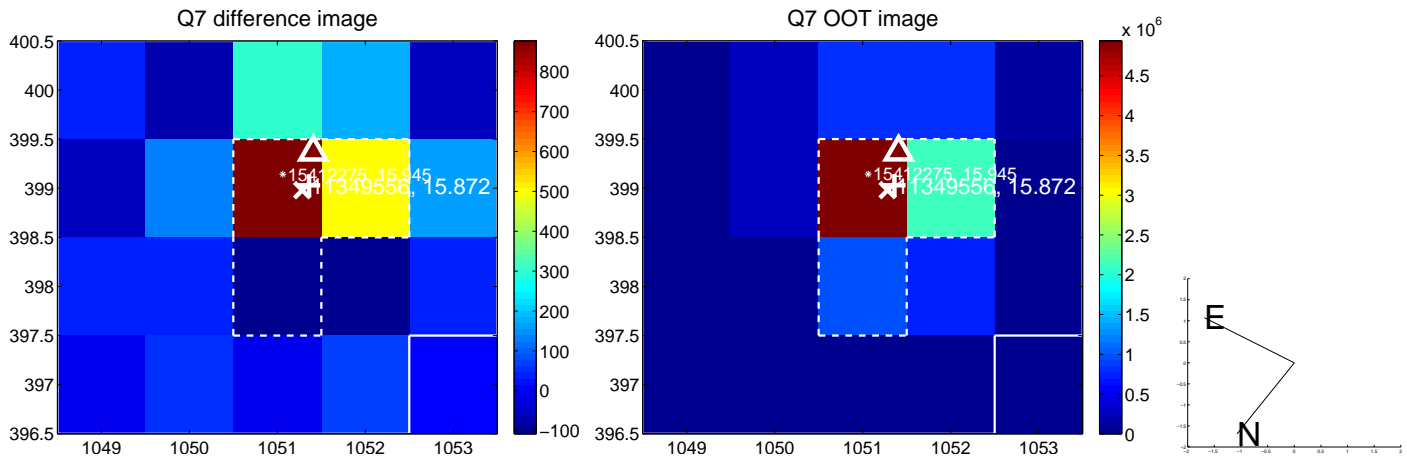
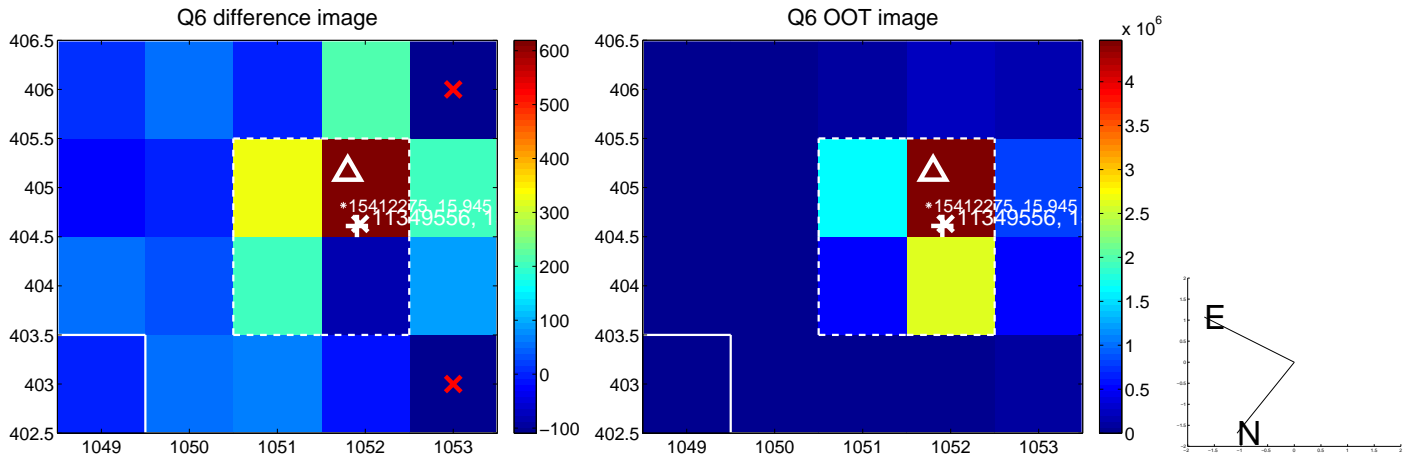
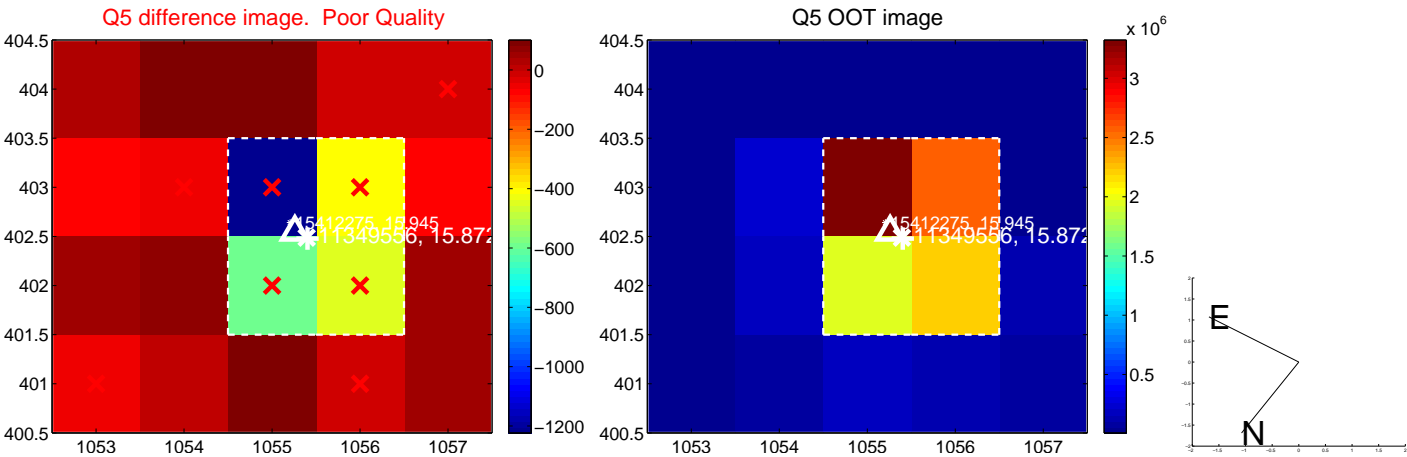


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

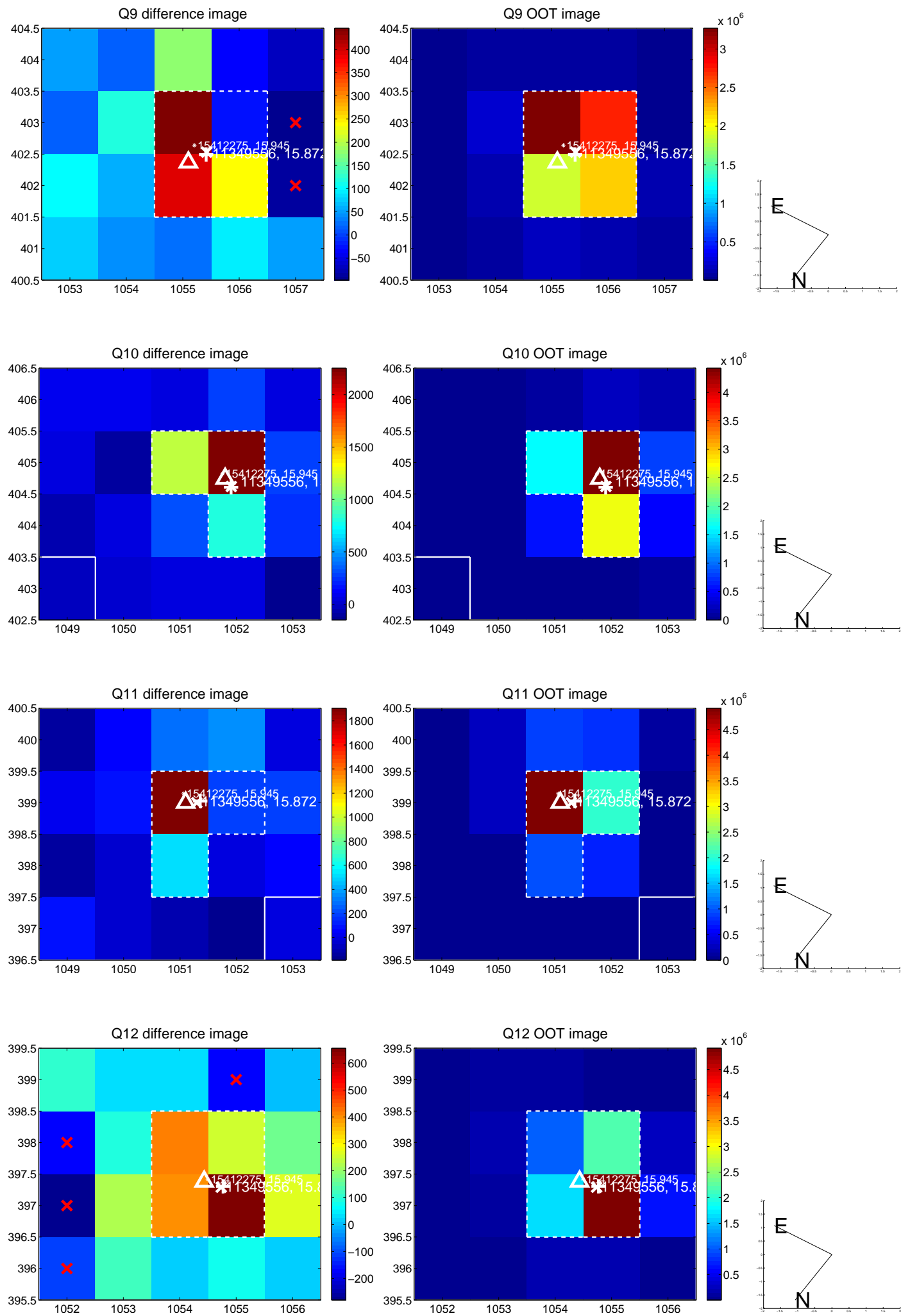
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



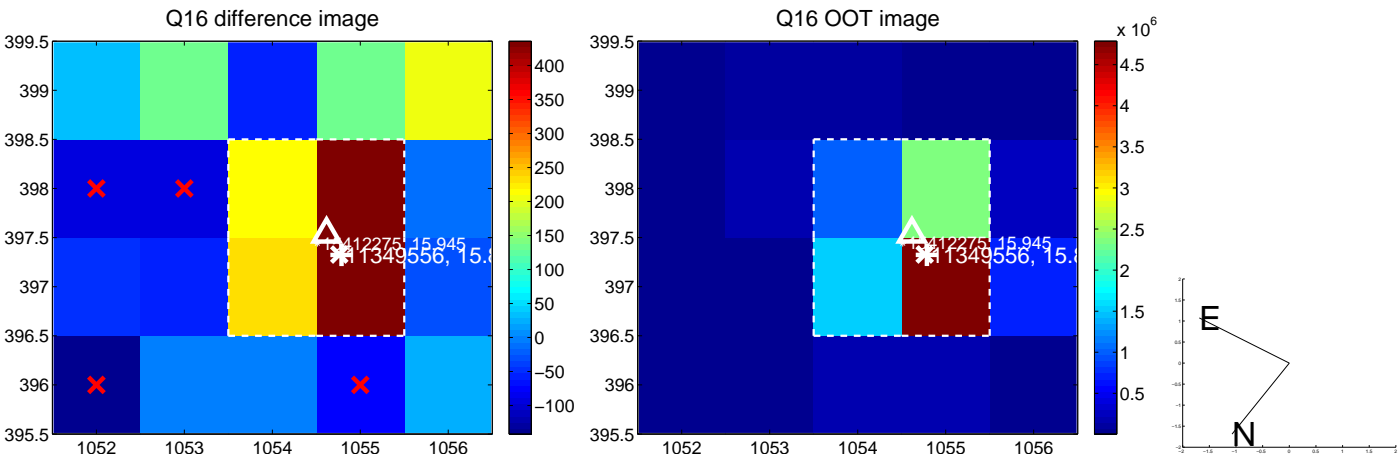
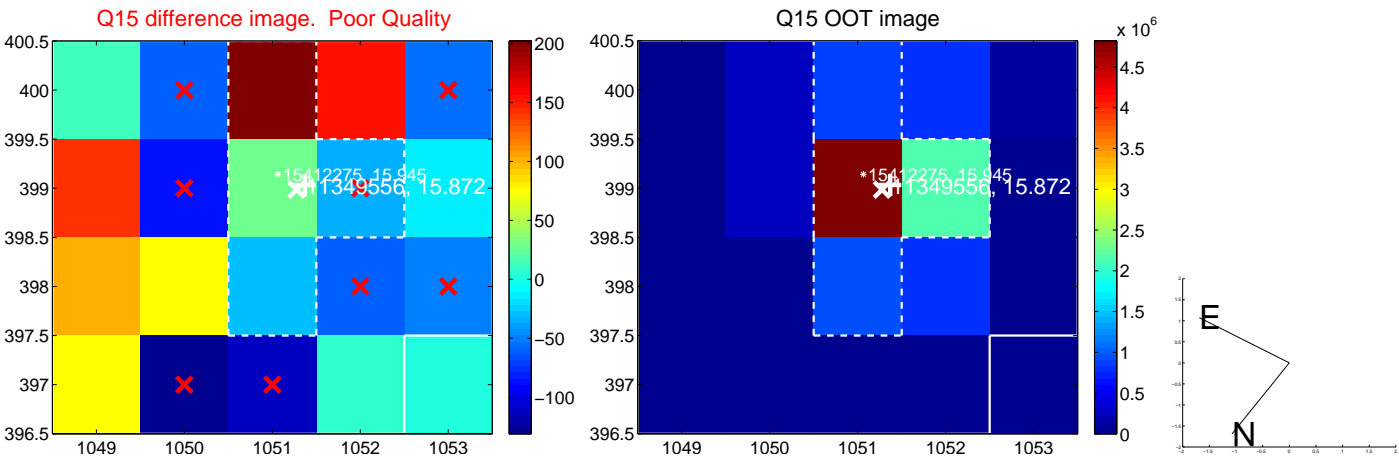
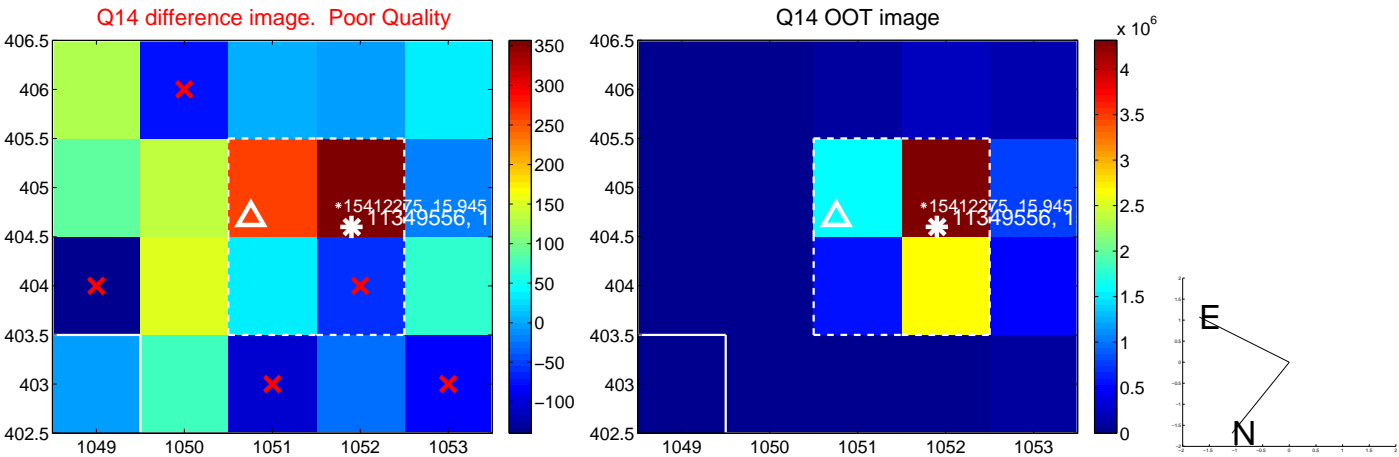
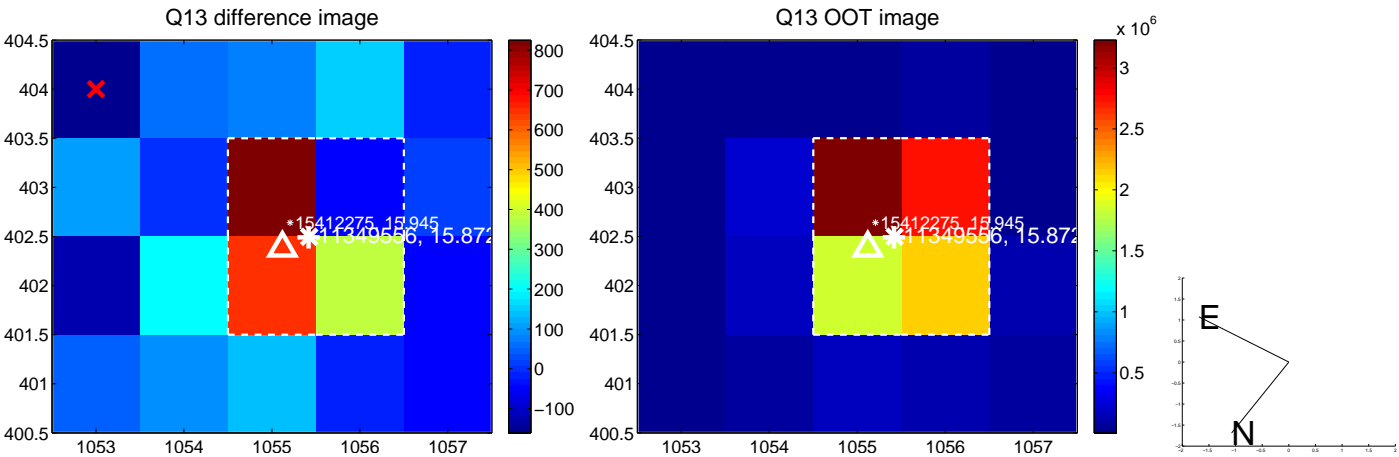
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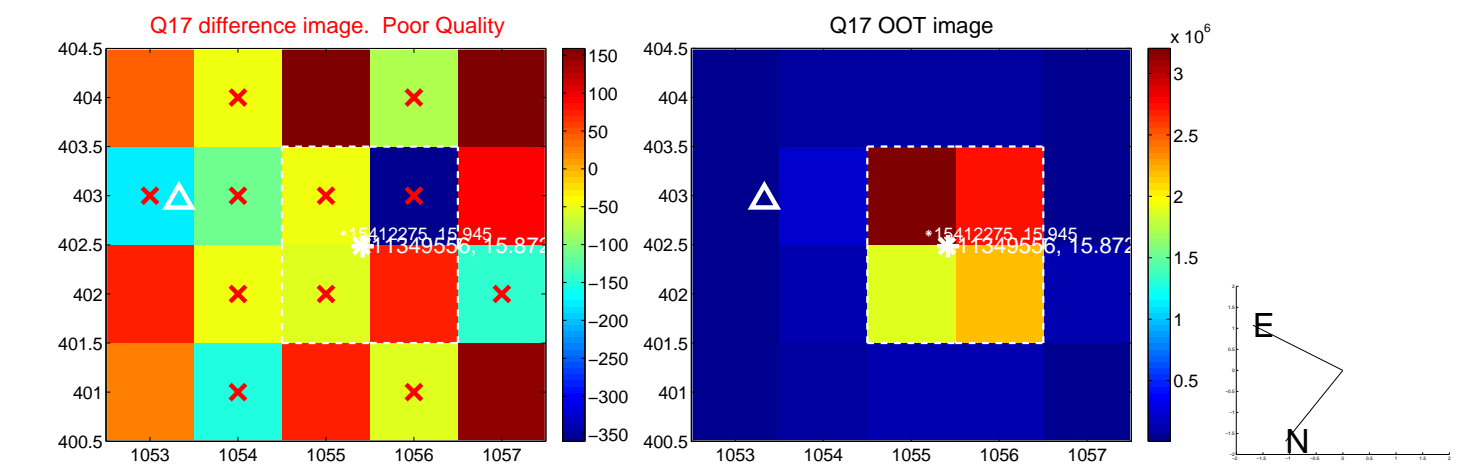
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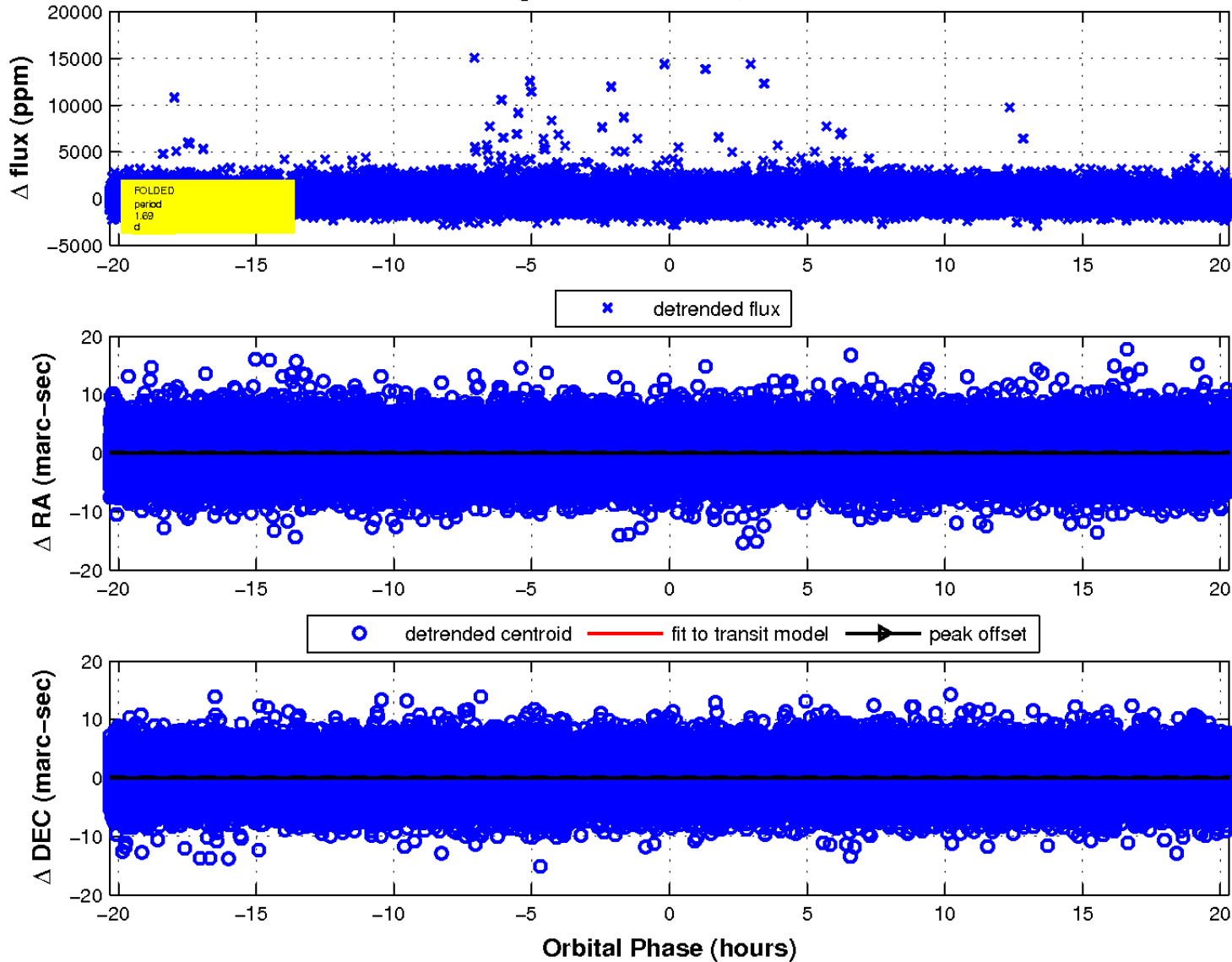
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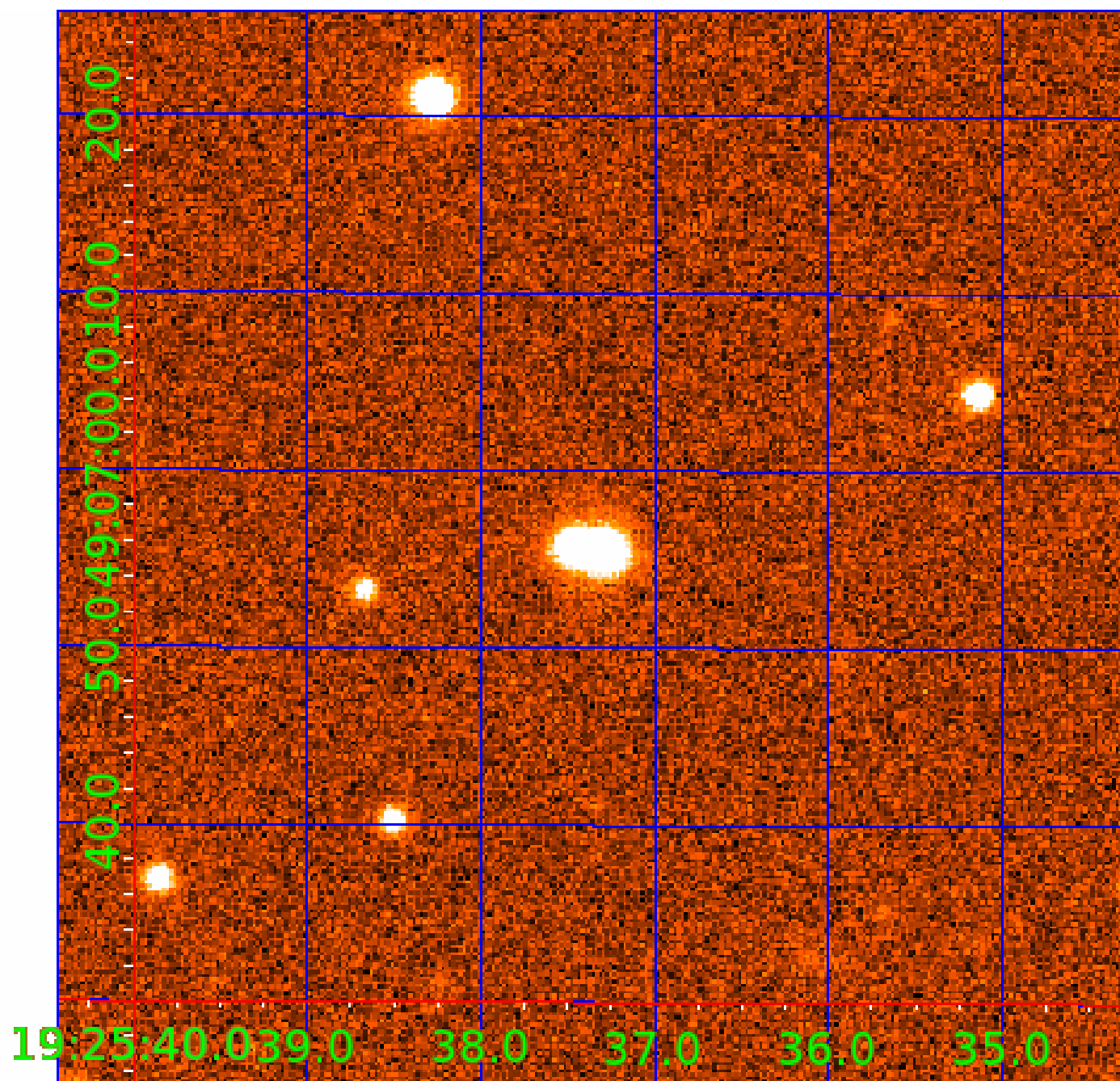


fluxWeightedCentroids, Planet 1 of 7



UKIRT Image

Declination



KIC 011349556

Q1-17 DR25 TCE Parameters

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011349556-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011349556-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
011349556-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011349556-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
011349556-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT

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

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

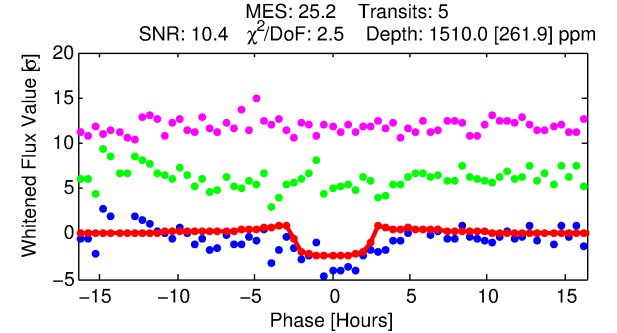
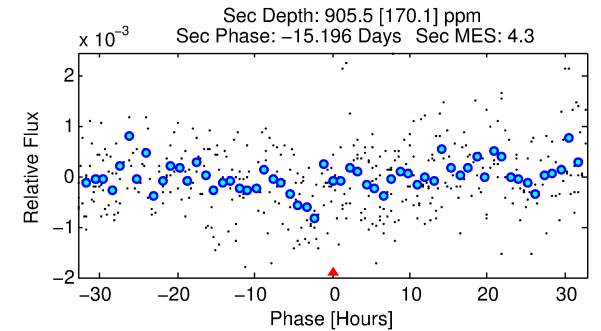
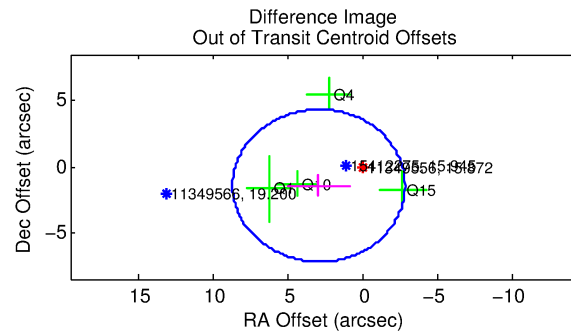
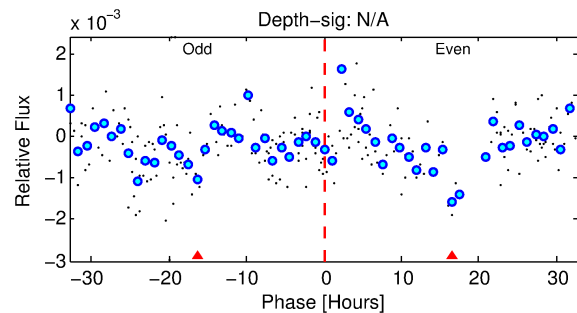
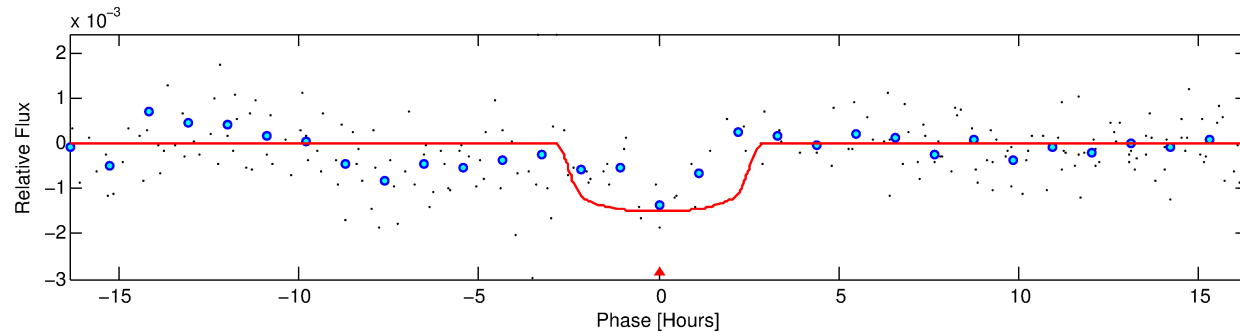
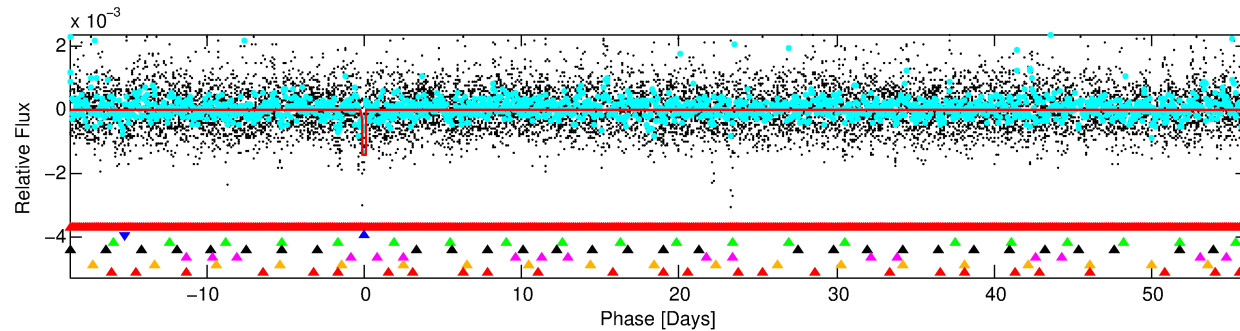
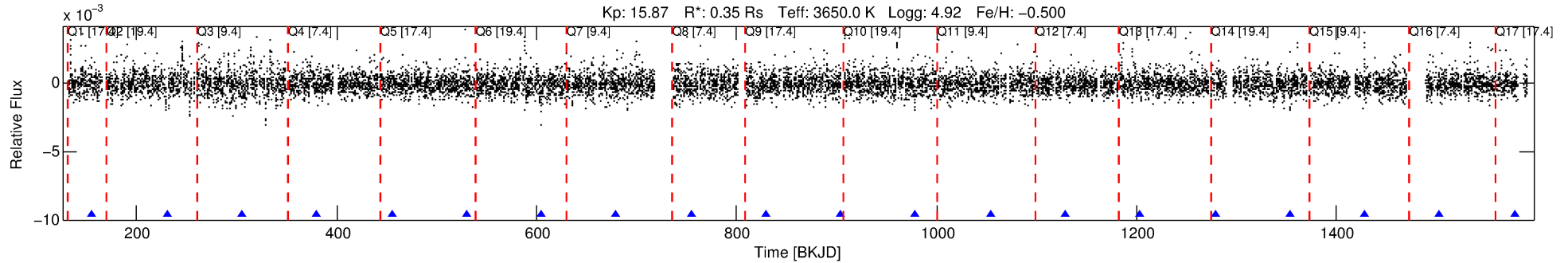
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011349556-02

No Significant Match Found

DV One-Page Summary

KIC: 11349556 Candidate: 2 of 7 Period: 74.848 d



DV Fit Results:

Period = 74.84766 [0.00167] d
Epoch = 155.7542 [0.0169] BKJD
Rp/R* = 0.0380 [0.0250]
a/R* = 80.74 [272.62]
b = 0.69 [2.51]
Seff = 0.31 [0.03]
Teq = 191 [5] K
Rp = 1.45 [0.96] Re
a = 0.2493 [0.0176] AU
Ag = 14817.91 [19776.92] [0.75σ]
Teffp = 3250 [1083] K [2.82σ]

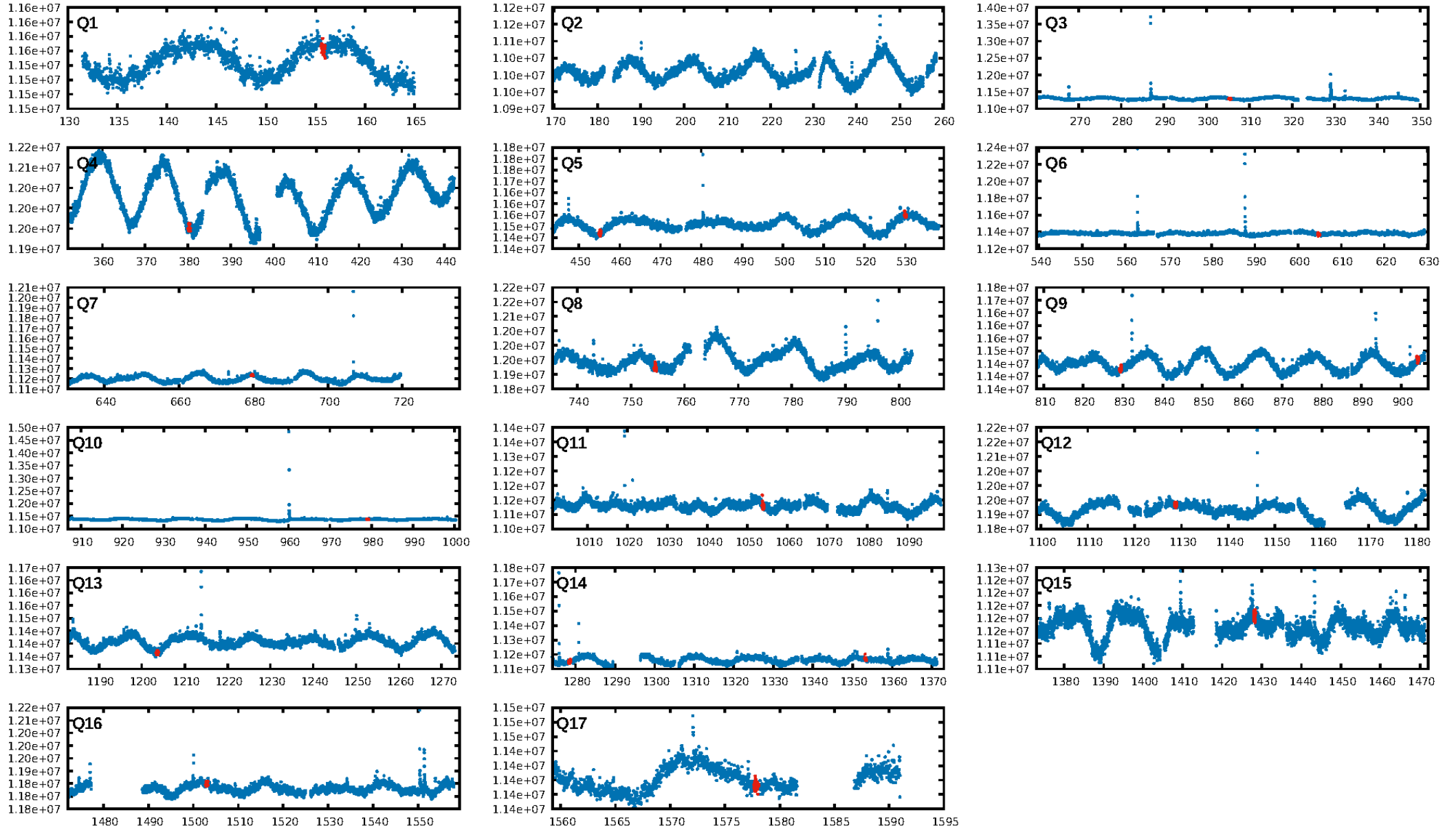
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [7.45σ]
LongPeriod-sig: 100.0% [15.58σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 94.2%
Bootstrap-pfa: 8.84e-81
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: -0.3143
Centroid-sig: 12.9%
Centroid-so: 0.356 arcsec [0.76σ]
OotOffset-rm: 3.222 arcsec [1.68σ]
KicOffset-rm: 3.172 arcsec [1.64σ]
OotOffset-st: 1/1/1/1 [4]
KicOffset-st: 1/1/1/1 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 0.12 [2/16]

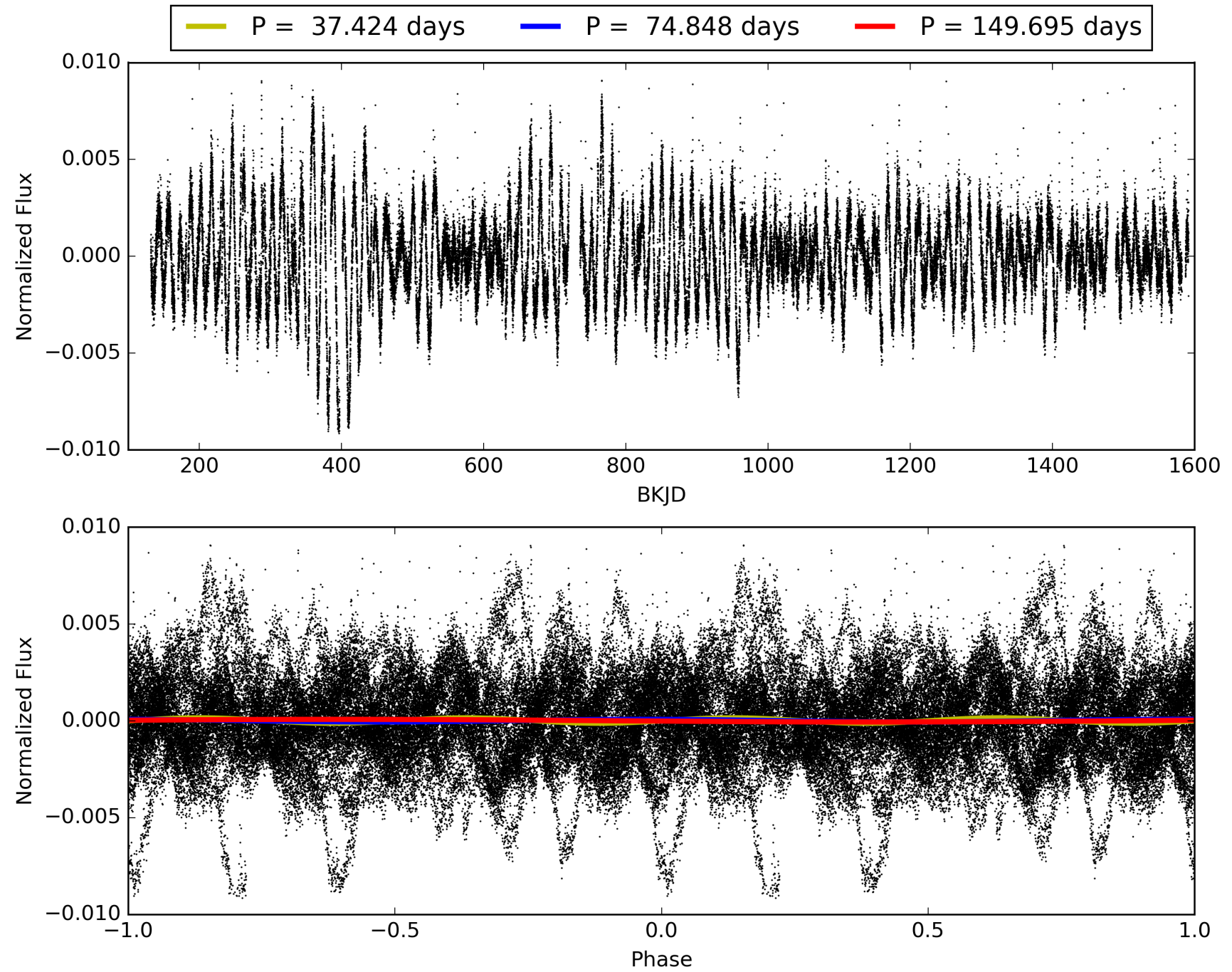
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:58:10 Z

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

TCE 011349556-02, PDC Light Curves

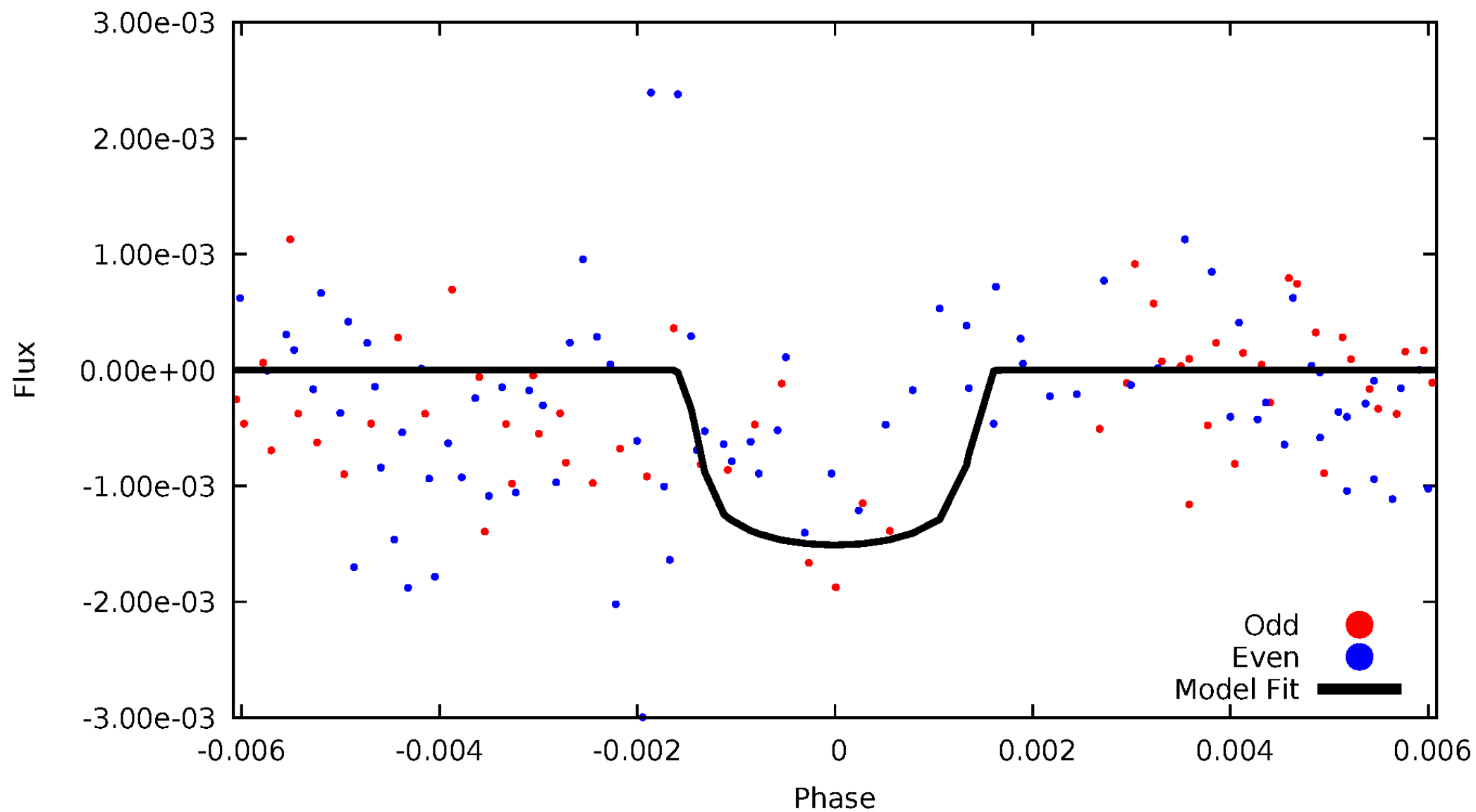


TCE 011349556-02



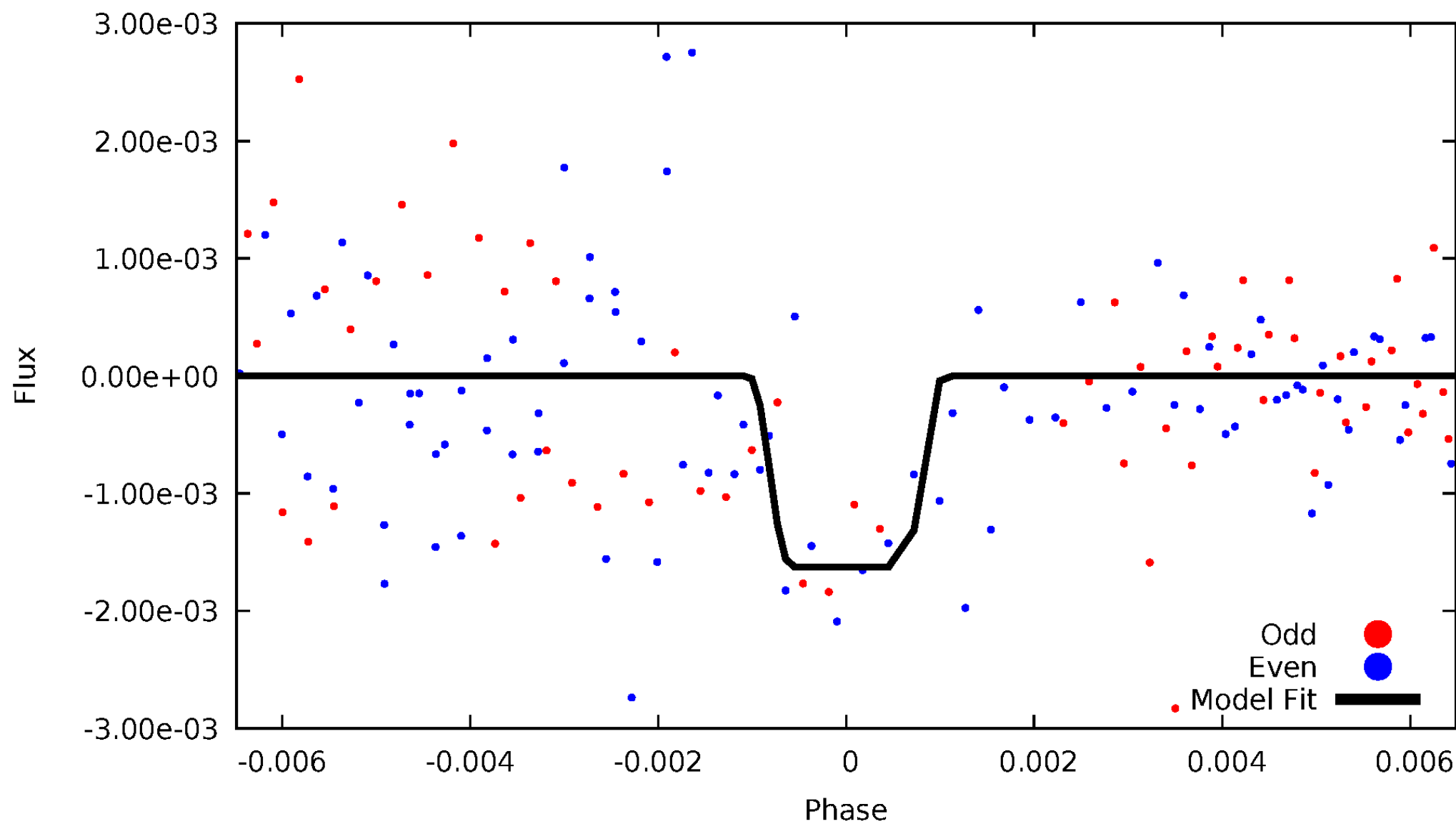
DV Odd/Even

TCE 011349556-02



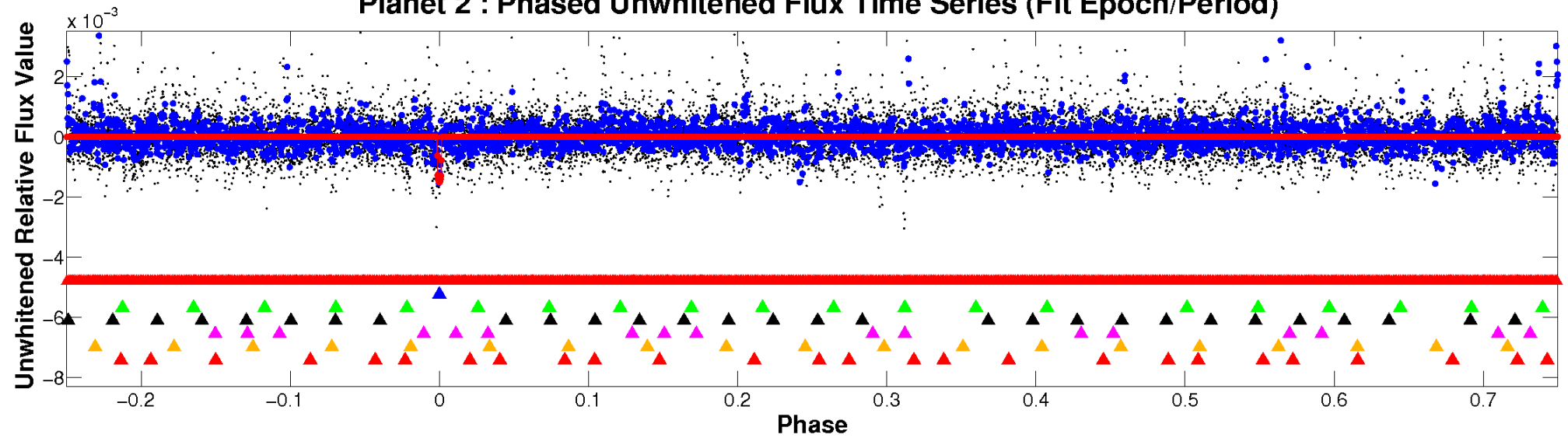
ALT Odd/Even

TCE 011349556-02

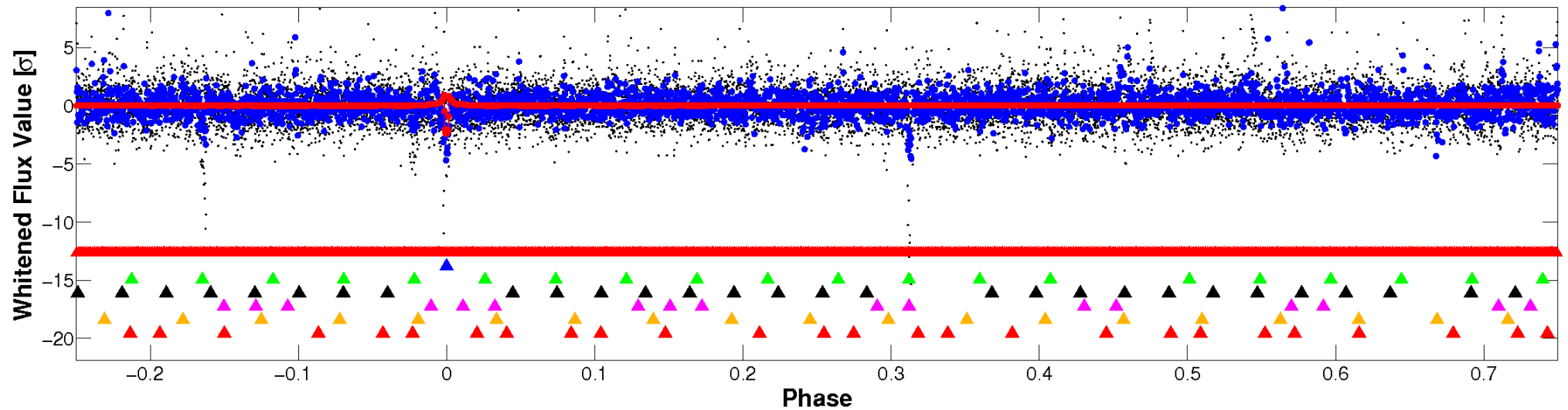


Non-Whitened Vs. Whitened Light Curve

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

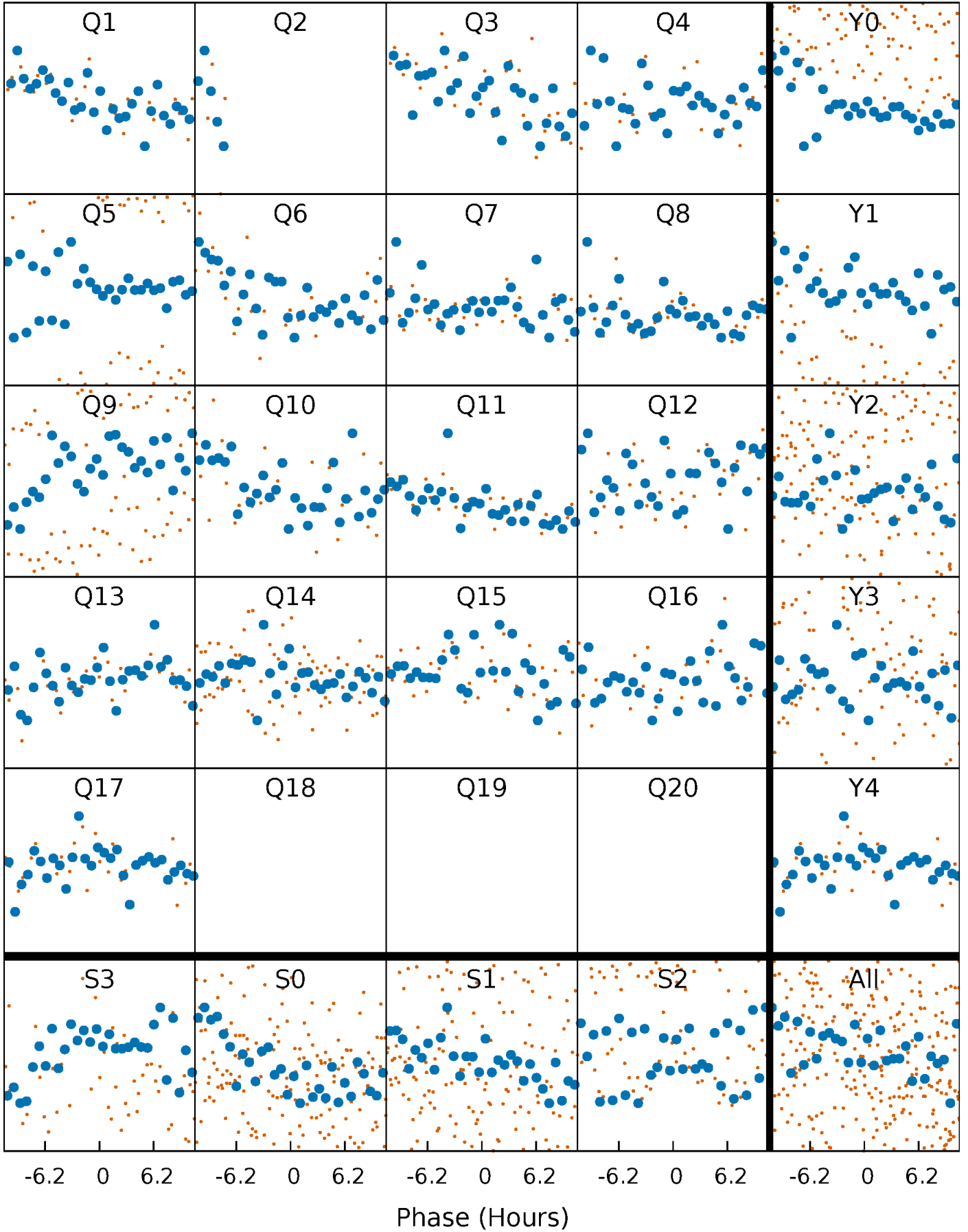


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



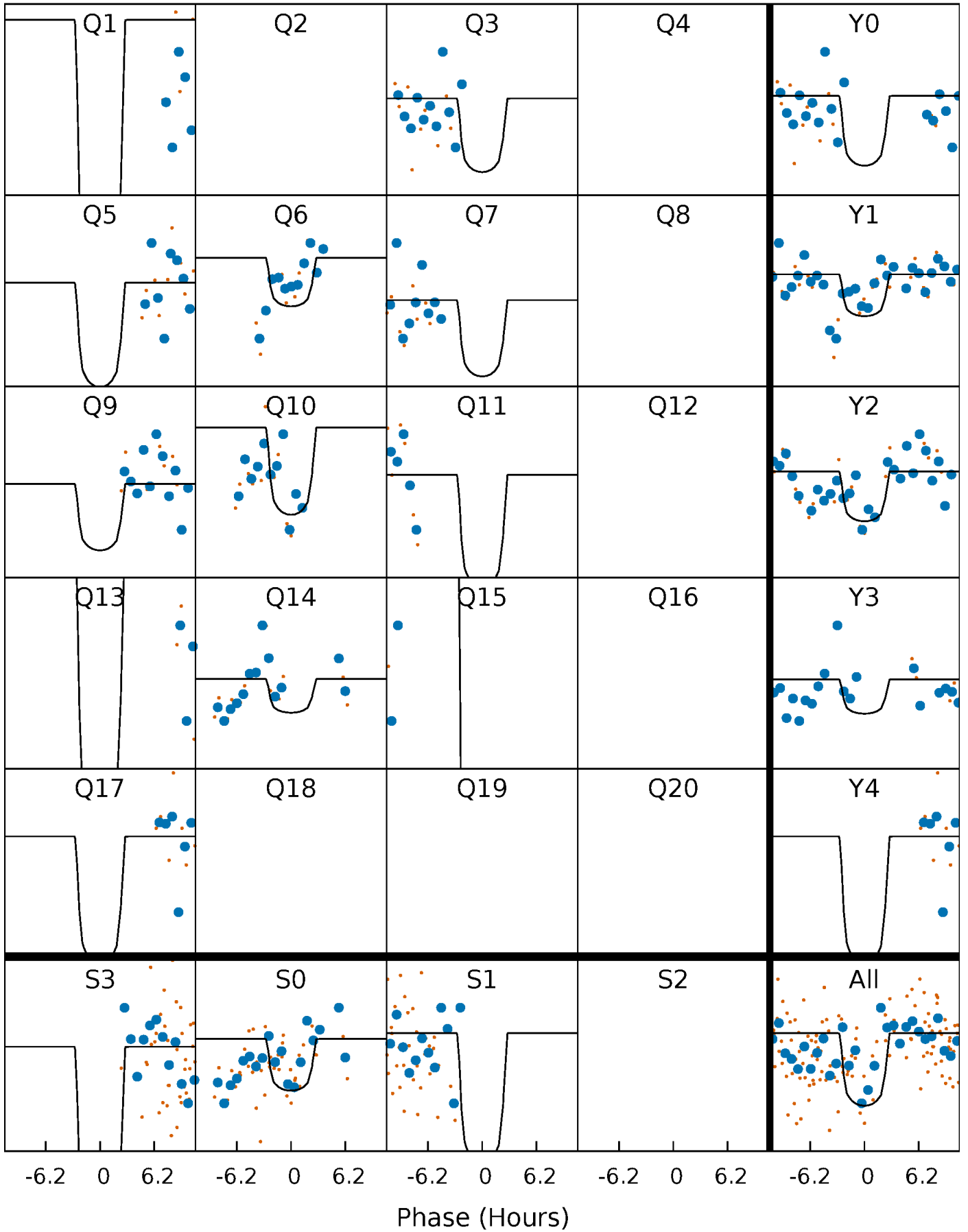
PDC Quarter-Phased Transit Curves

TCE 011349556-02 P= 74.847656 Days $T_0=155.754153$ (BKJD)



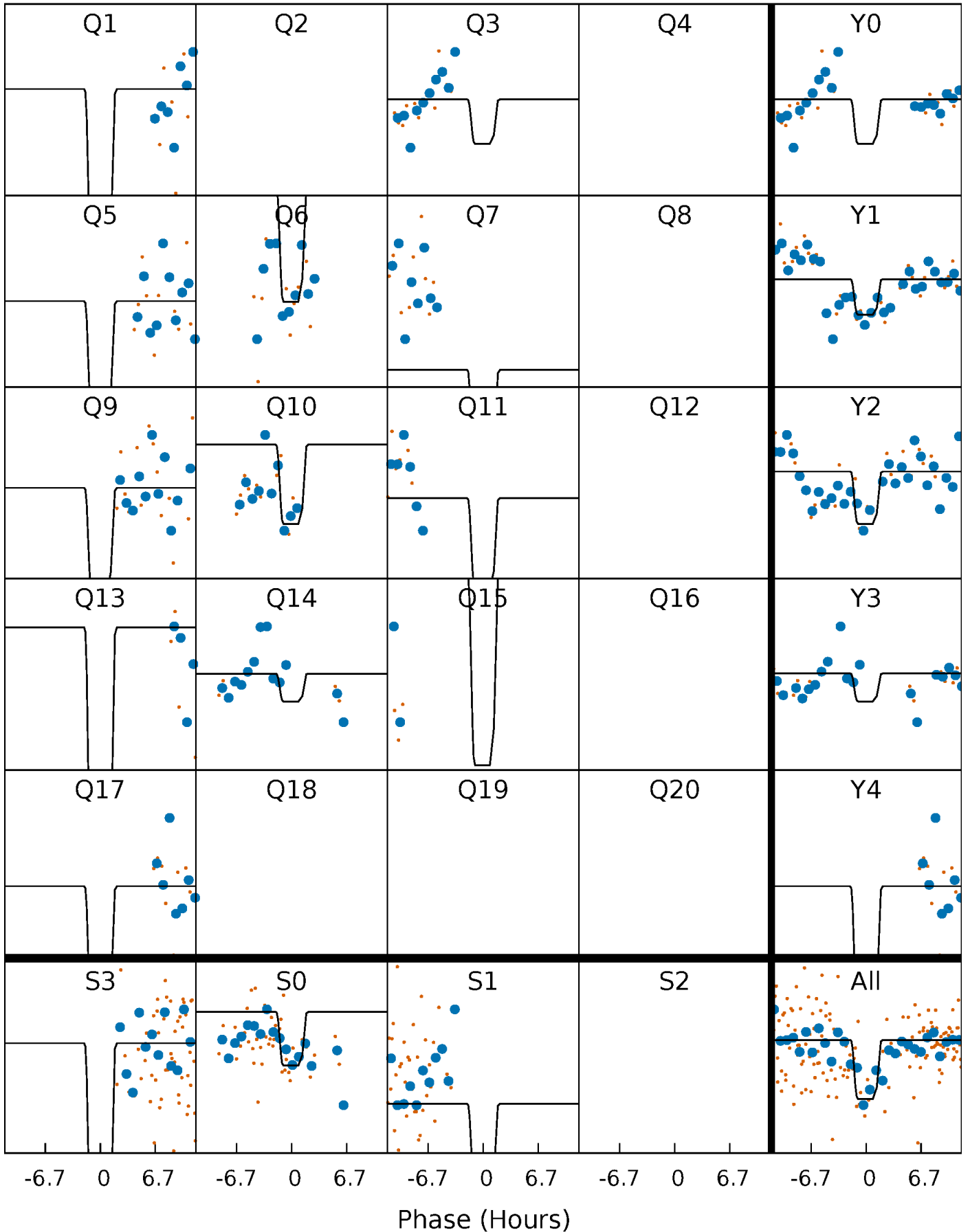
DV Quarter-Phased Transit Curves

TCE 011349556-02 P= 74.847656 Days $T_0=155.754153$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

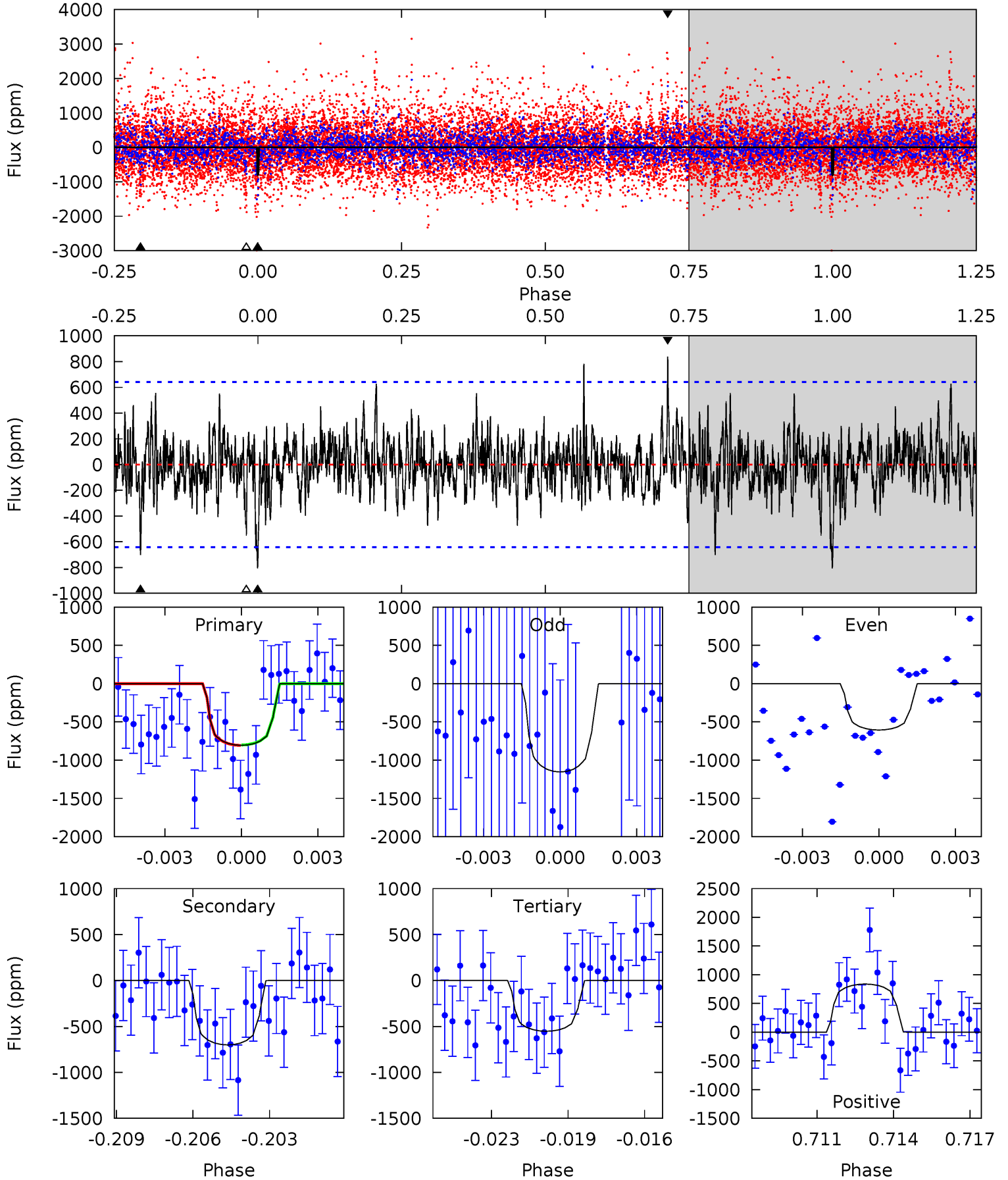
TCE 011349556-02 P= 74.845501 Days $T_0=155.792415$ (BKJD)



DV Model-Shift Uniqueness Test

011349556-02, P = 74.847656 Days, E = 80.906497 Days

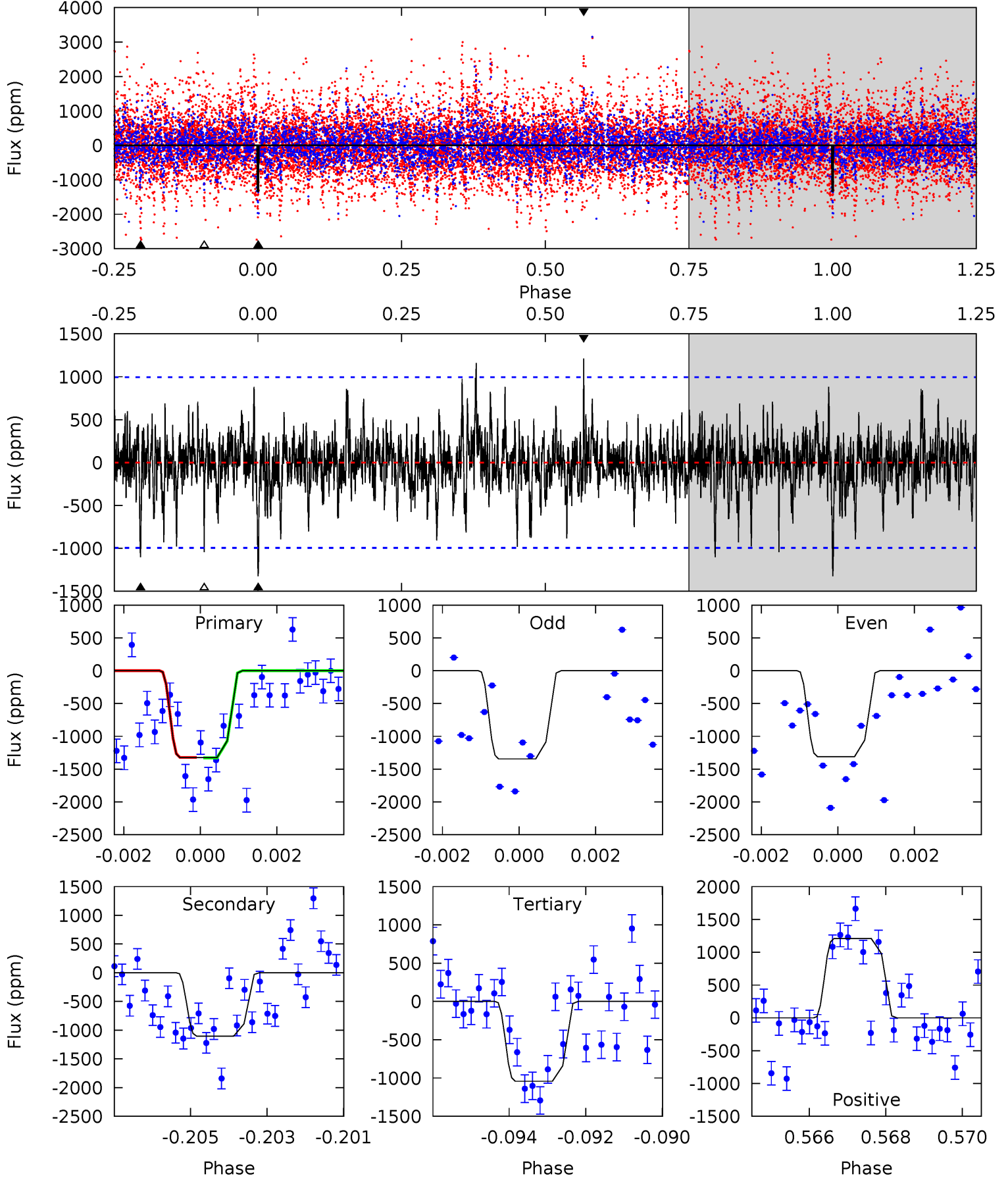
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.58	5.73	4.51	6.84	5.24	2.95	1.38	2.07	-0.26	1.22	-1.11	1.77	1.11	0.51	0.03



Alt Model-Shift Uniqueness Test

011349556-02, P = 74.845501 Days, E = 80.946914 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.09	5.90	5.58	6.48	5.32	3.08	1.37	1.51	0.61	0.33	-0.57	0.09	0.69	0.48	0.02



Stellar Parameters For KIC 011349556

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3650^{+43}_{-49}	$4.919^{+0.036}_{-0.036}$	$-0.500^{+0.100}_{-0.100}$	$0.349^{+0.030}_{-0.034}$	$0.370^{+0.029}_{-0.043}$	$12.220^{+2.307}_{-1.762}$
	+1%/-1%	+1%/-1%	+20%/-20%	+9%/-10%	+8%/-12%	+19%/-14%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 011349556-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-701 ± 122	$1.50^{+1.01}_{-0.85}$	266^{+5}_{-6}	3227^{+977}_{-433}	10524^{+42559}_{-6789}
Alt.	-1103 ± 187	$1.59^{+0.95}_{-0.89}$	266^{+5}_{-5}	3397^{+1097}_{-444}	15151^{+60764}_{-9273}

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

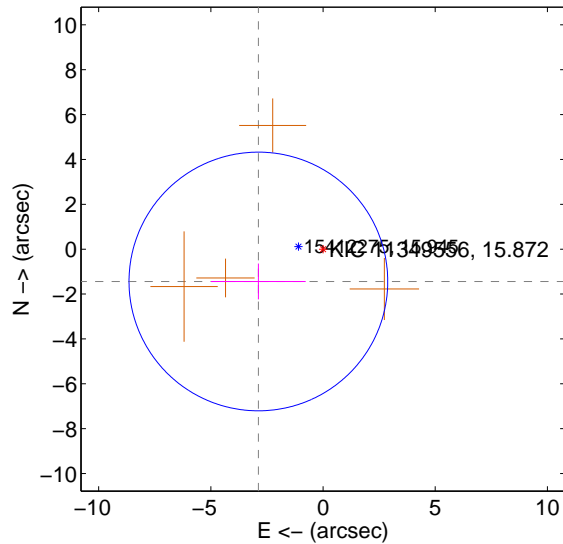
Supplemental centroid analysis for 011349556-02. Kepler magnitude: 15.87. Transit SNR 10.41

There are 0 quarters with good PRF difference image offsets

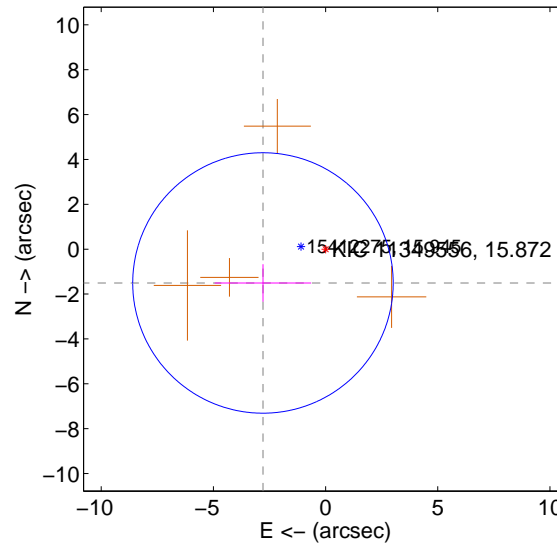
The direct PRF centroid is offset from the target star catalog position by about 0.41 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.222 ± 1.922	1.68	2.882 ± 2.111	-1.440 ± 0.800
PRF-fit source offset from KIC position	3.172 ± 1.935	1.64	2.791 ± 2.152	-1.507 ± 0.834
photometric centroid source offset	0.36 ± 0.47	0.76	-0.17 ± 0.52	0.31 ± 0.45

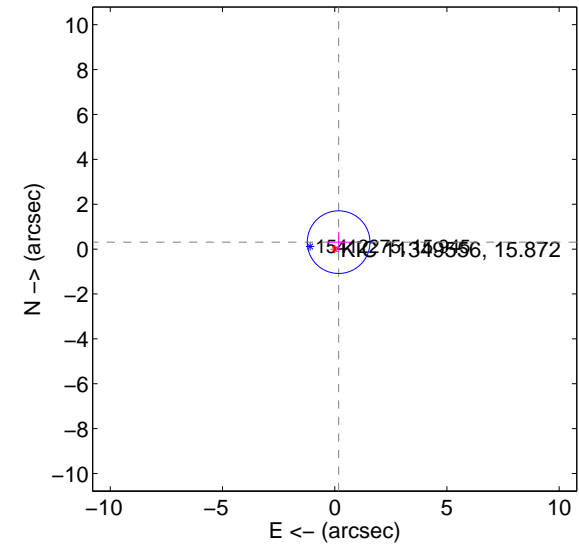
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

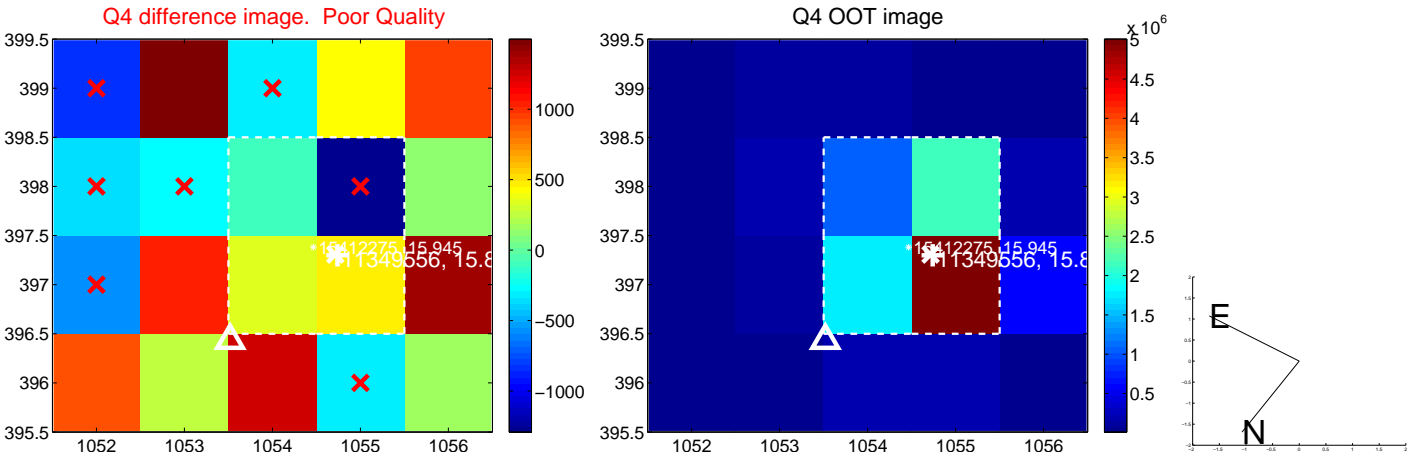
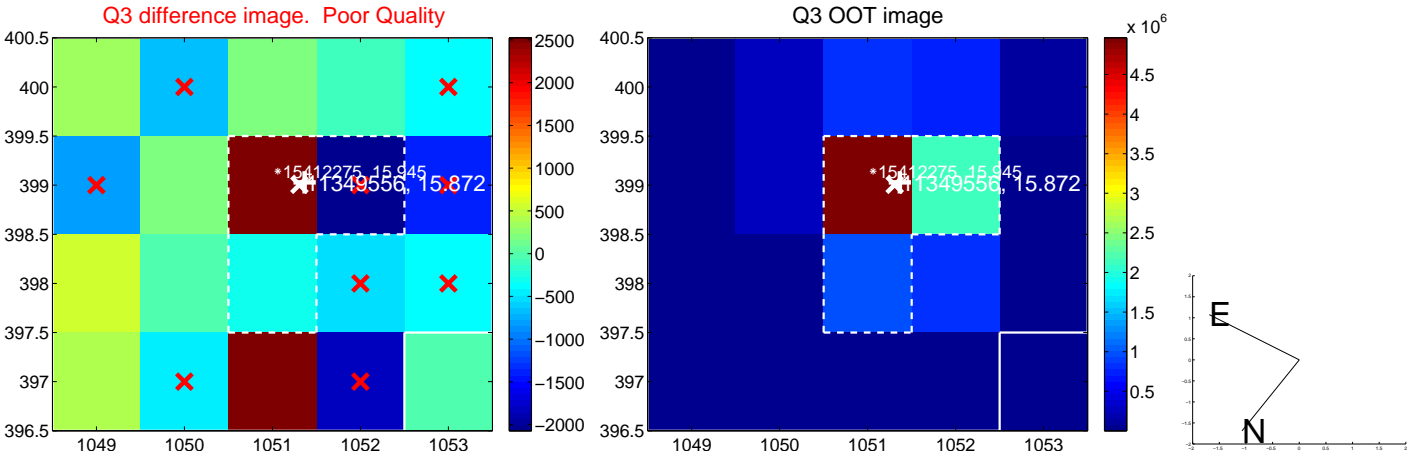
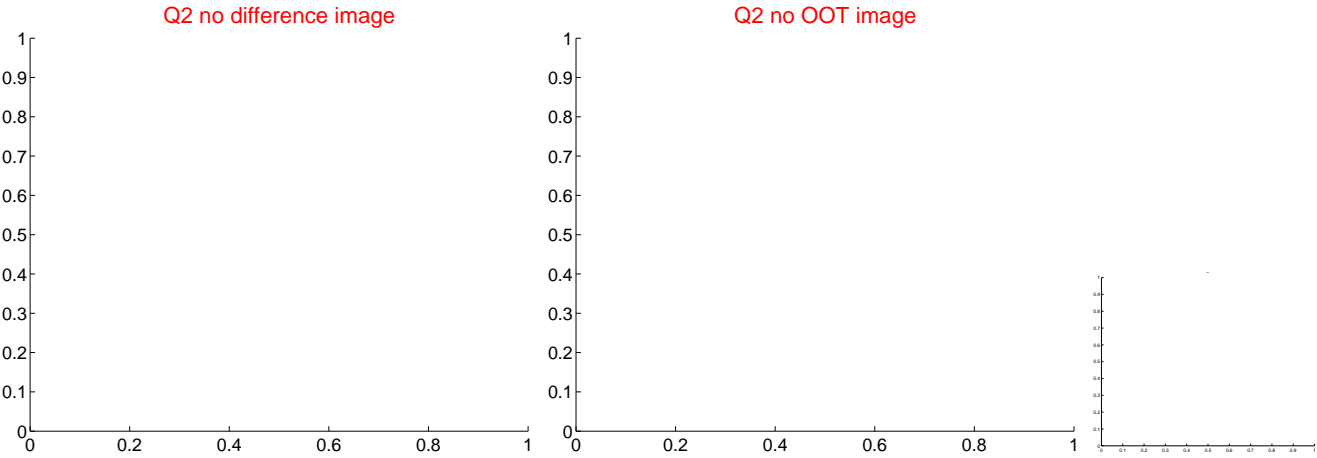
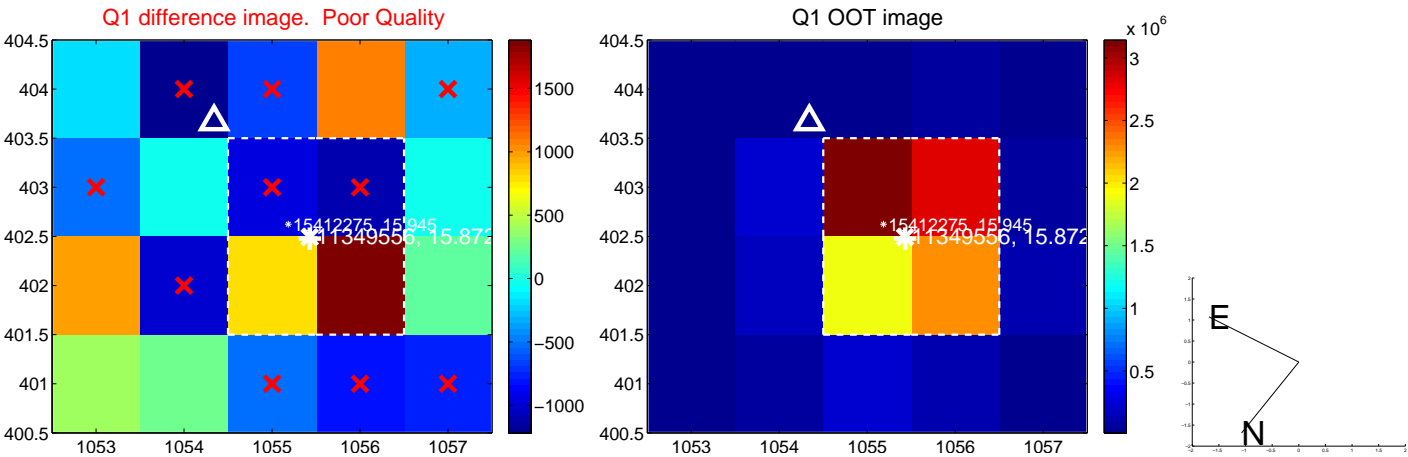


offset from photometric centroids

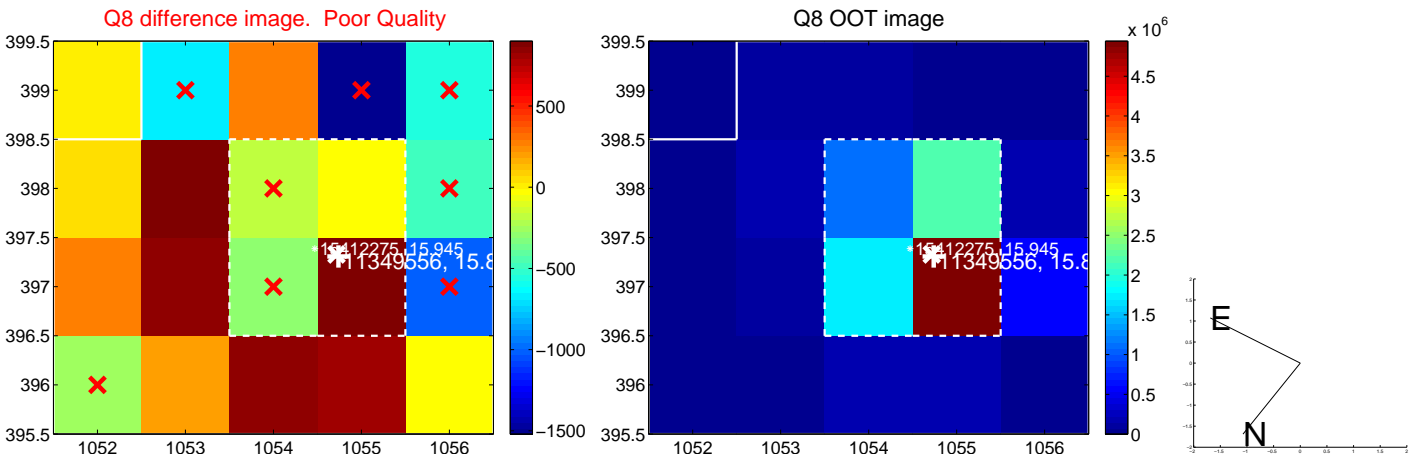
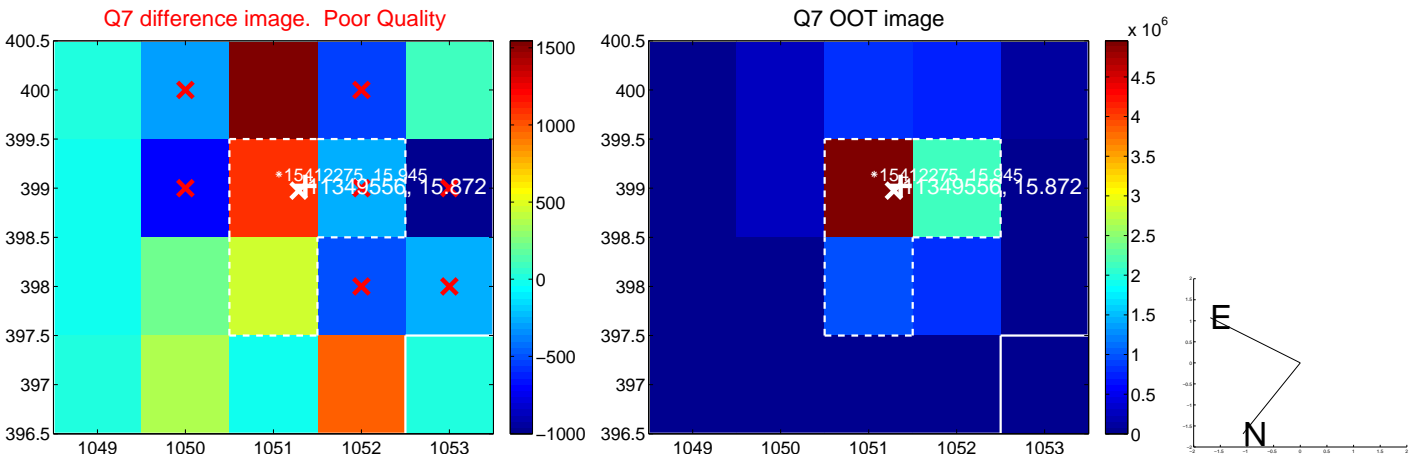
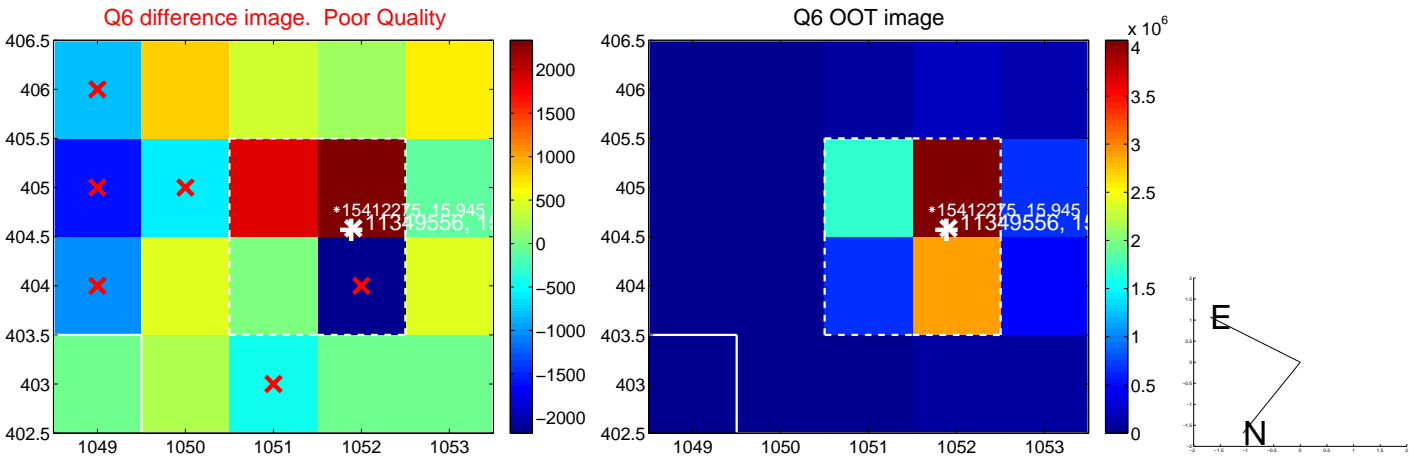
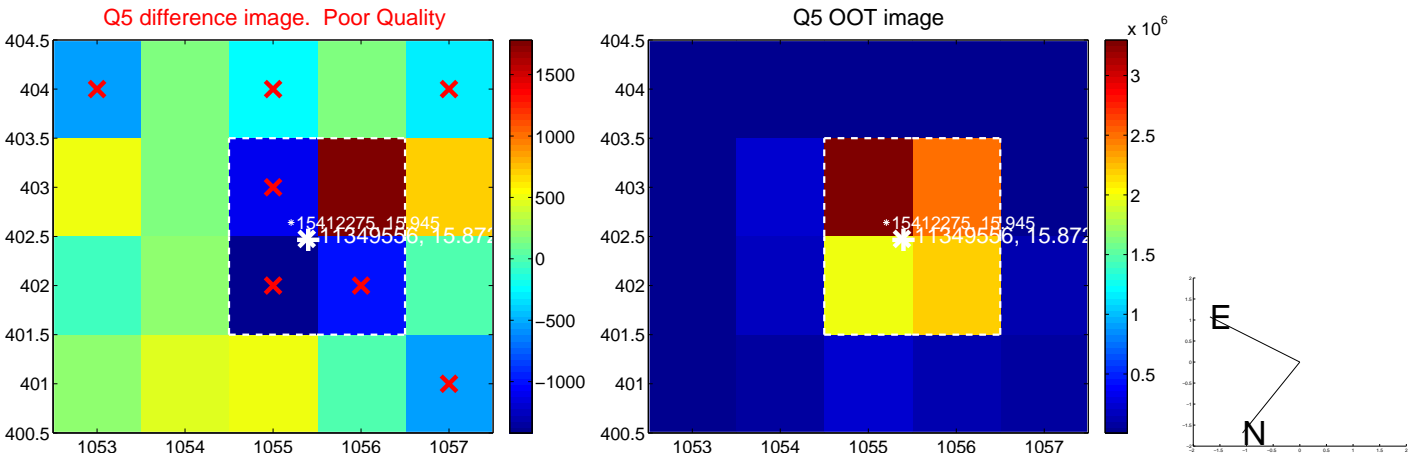


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

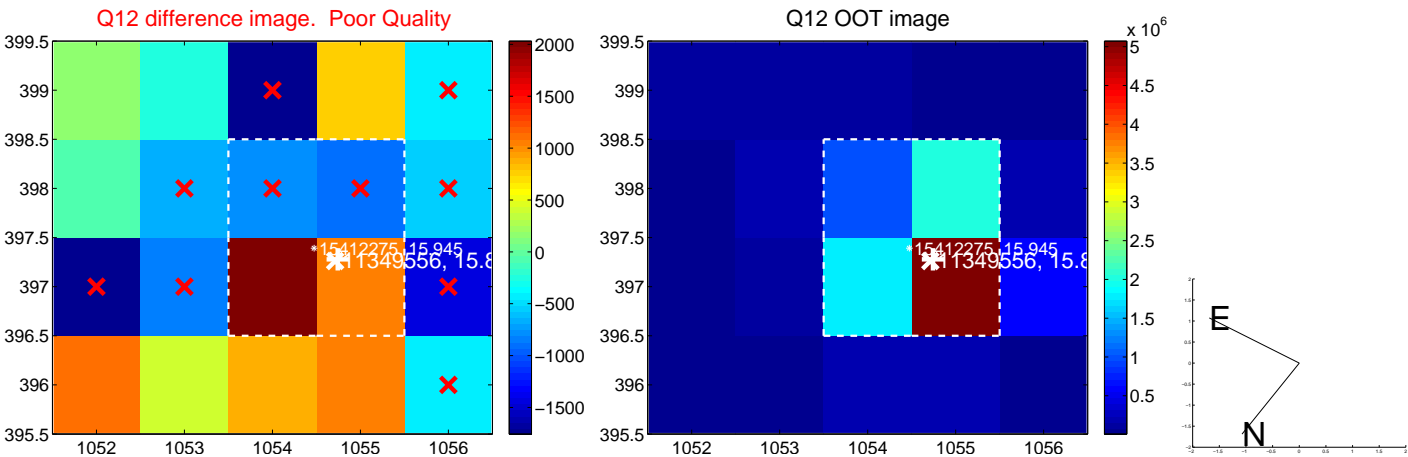
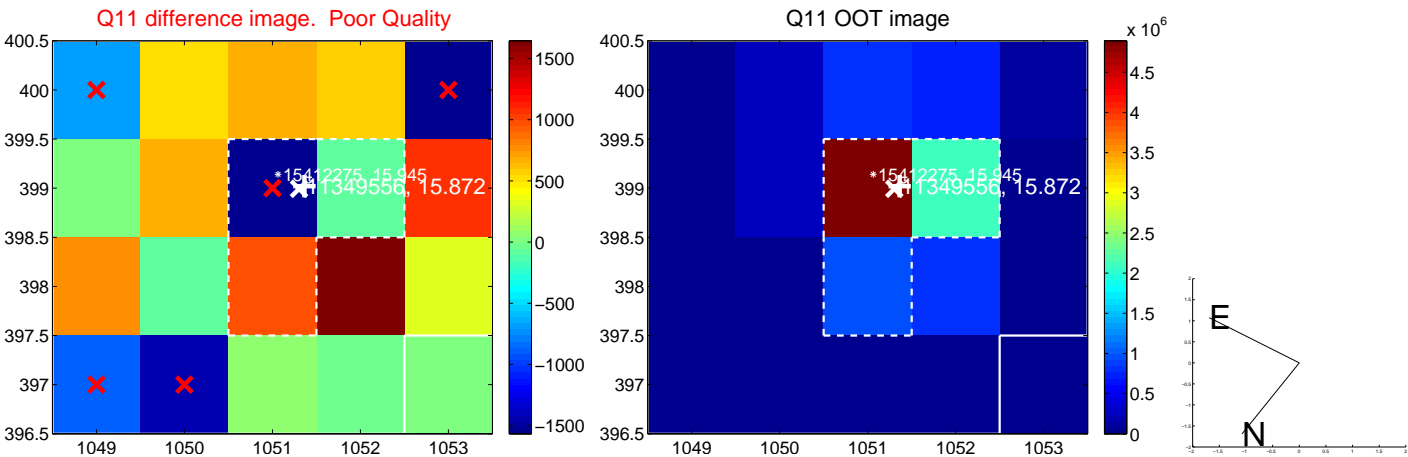
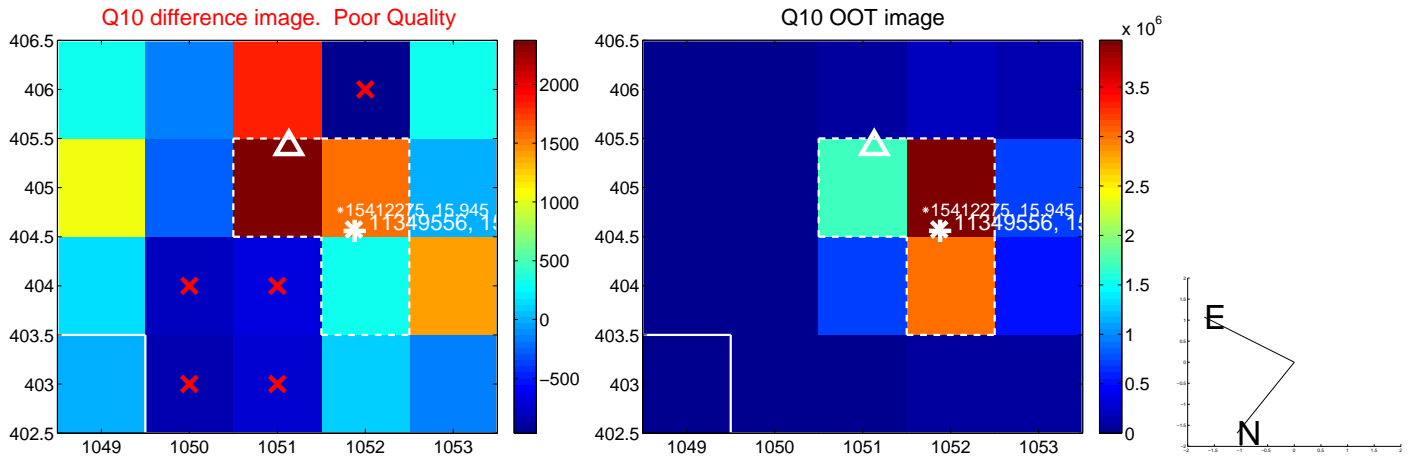
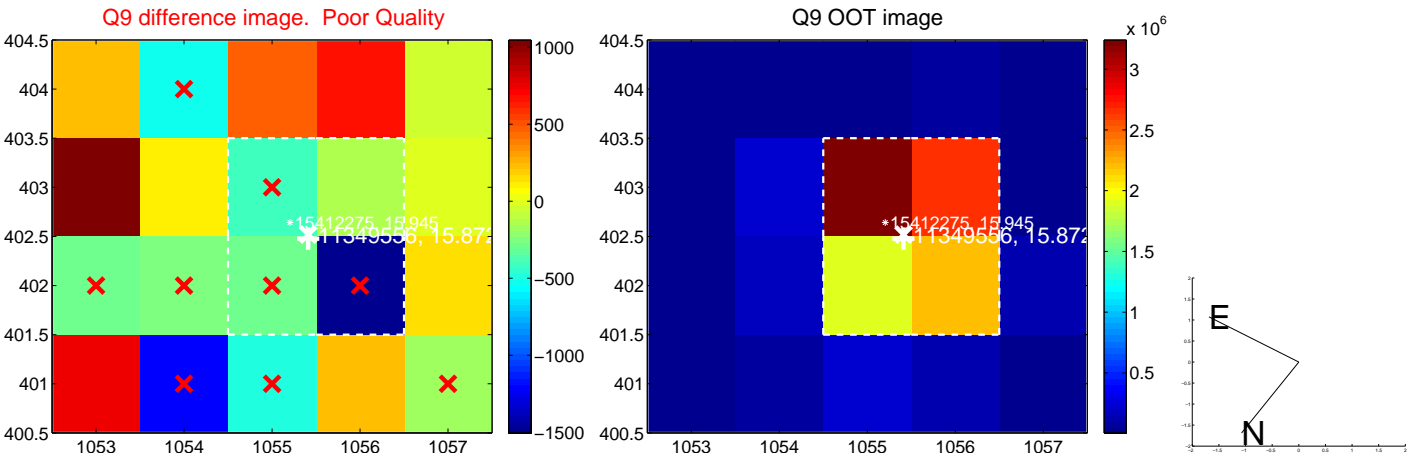
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



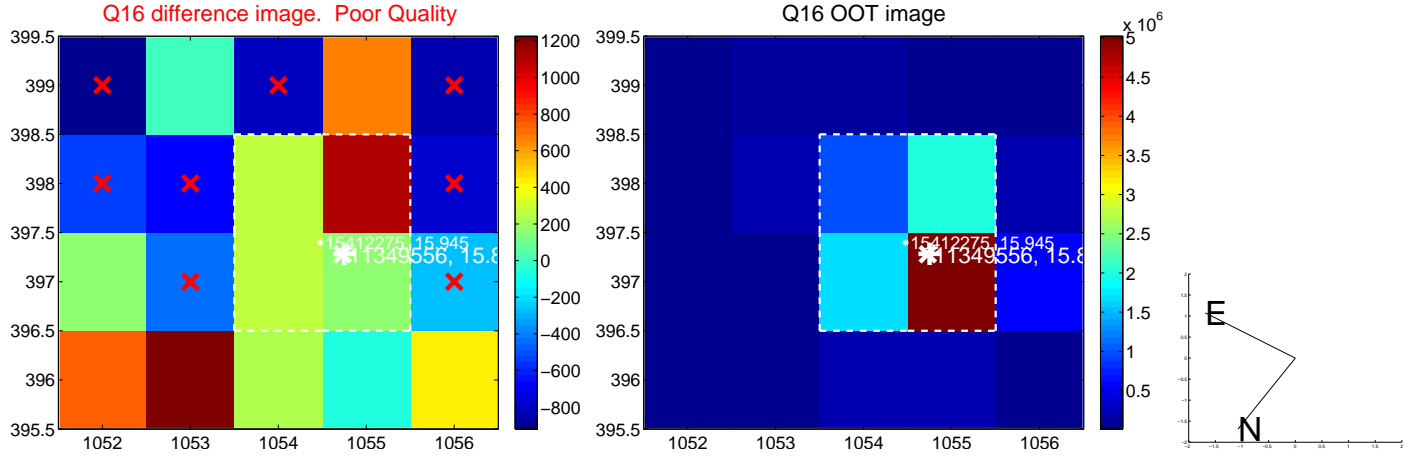
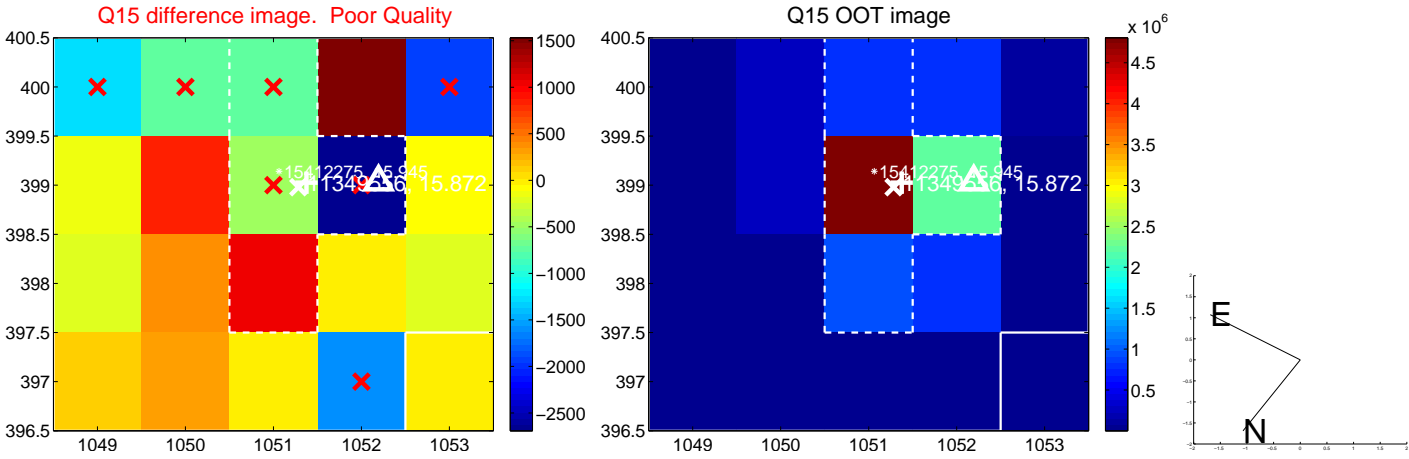
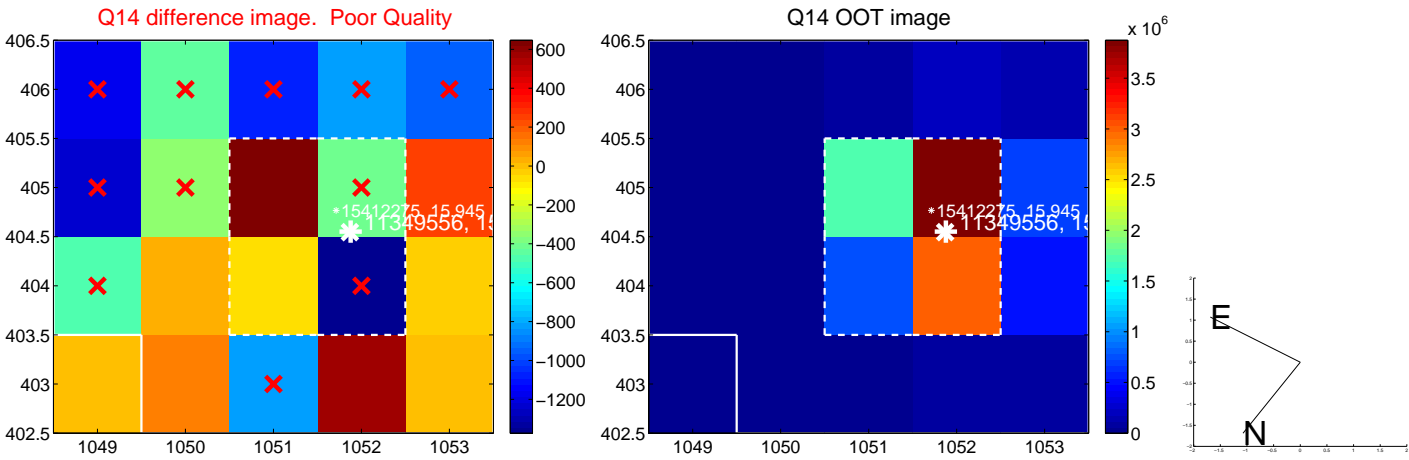
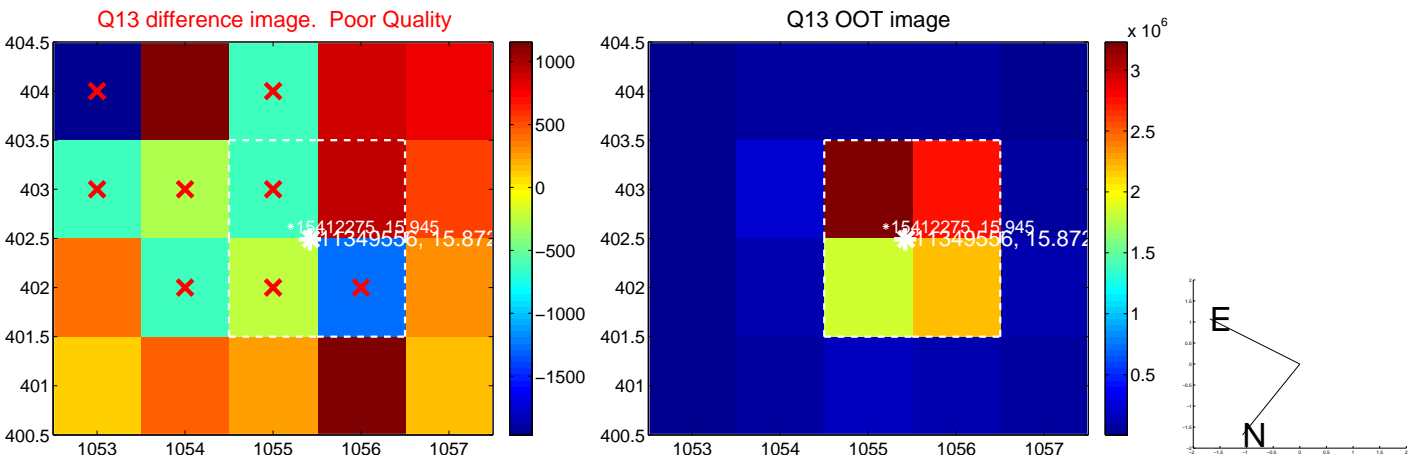
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



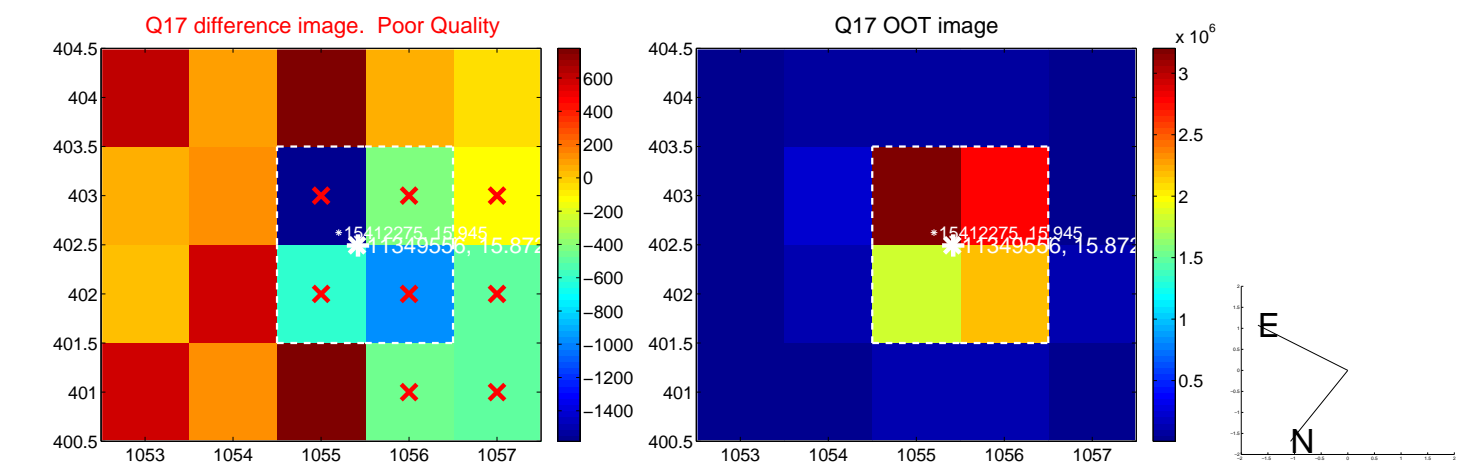
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



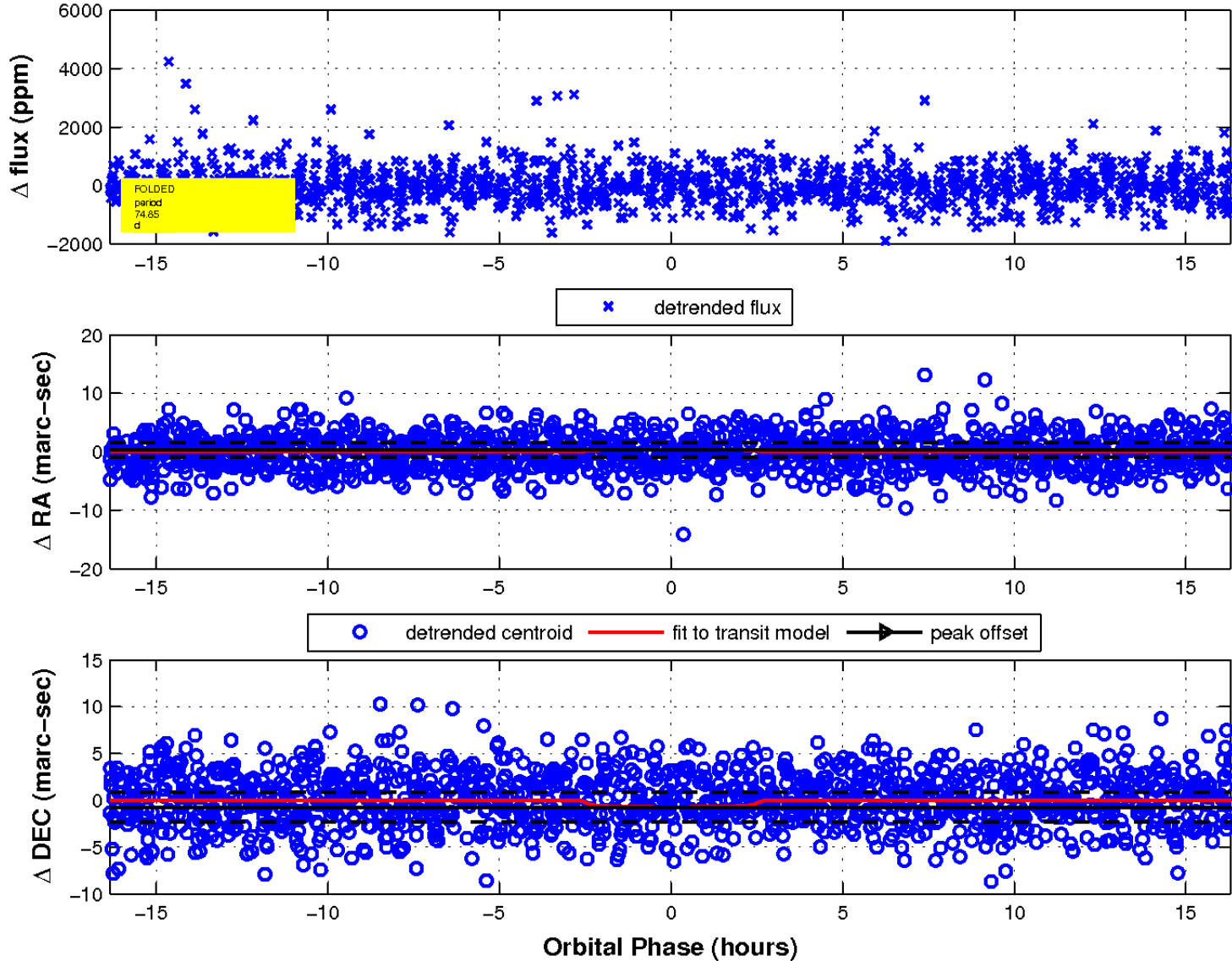
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

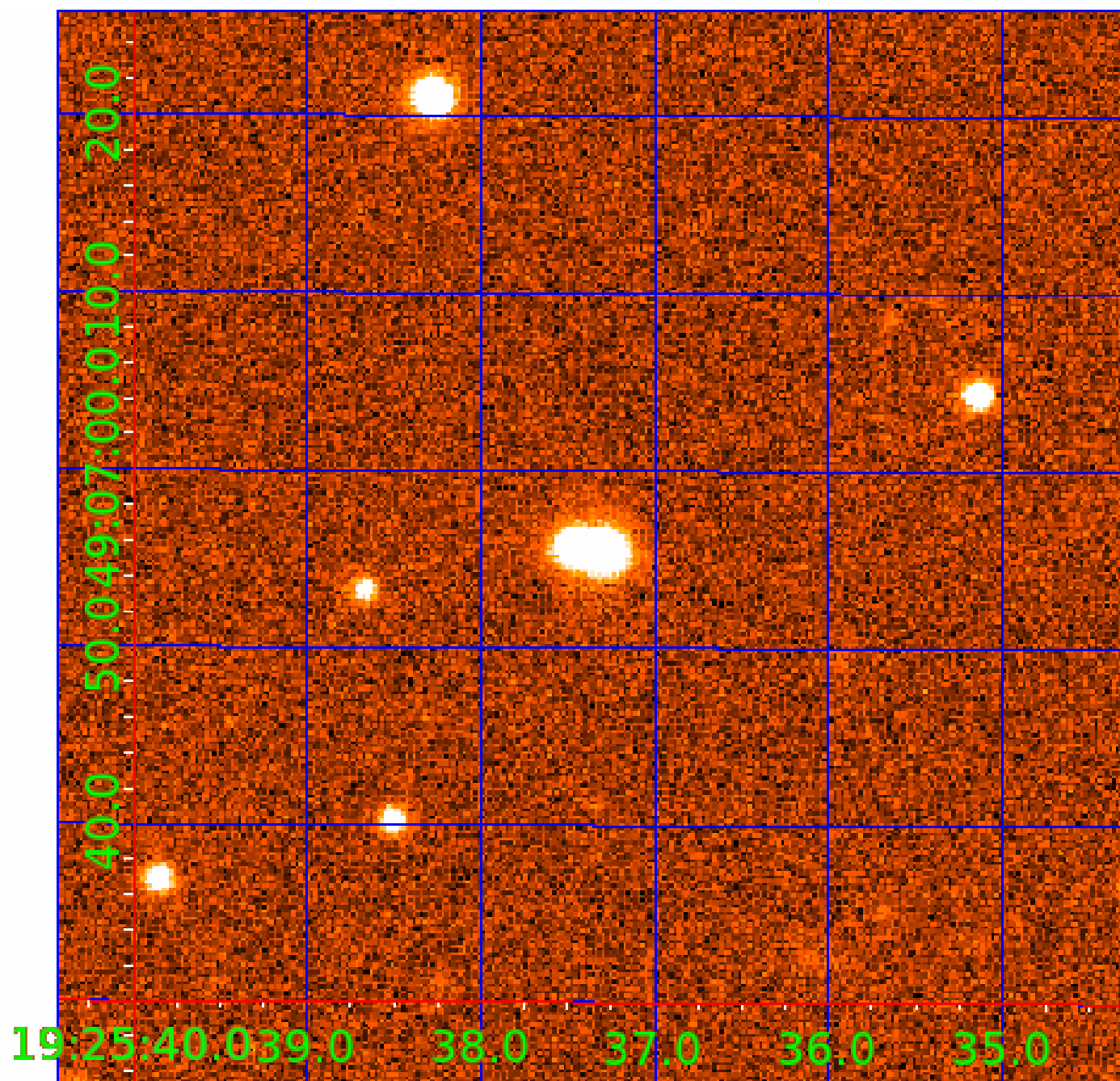


fluxWeightedCentroids, Planet 2 of 7



UKIRT Image

Declination



KIC 011349556

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})
011349556-01	OBS	No	1.692946	131.654327	94.8	10.749	10.0	11.5	0.35	3650	0.36	48.73
011349556-02	OBS	No	74.847656	155.754153	1510.0	5.463	25.2	10.4	0.35	3650	1.45	0.31
011349556-04	OBS	No	50.643544	132.657026	882.4	2.569	9.1	9.0	0.35	3650	1.11	0.53
011349556-05	OBS	No	85.309875	147.730851	556.7	7.288	10.1	5.3	0.35	3650	0.84	0.26
011349556-06	OBS	No	78.807260	134.518839	759.1	2.715	8.2	6.8	0.35	3650	1.00	0.29
011349556-07	OBS	No	57.324570	152.538208	334.2	9.091	8.4	4.0	0.35	3650	0.67	0.45

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011349556-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
011349556-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011349556-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
011349556-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011349556-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
011349556-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT

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

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

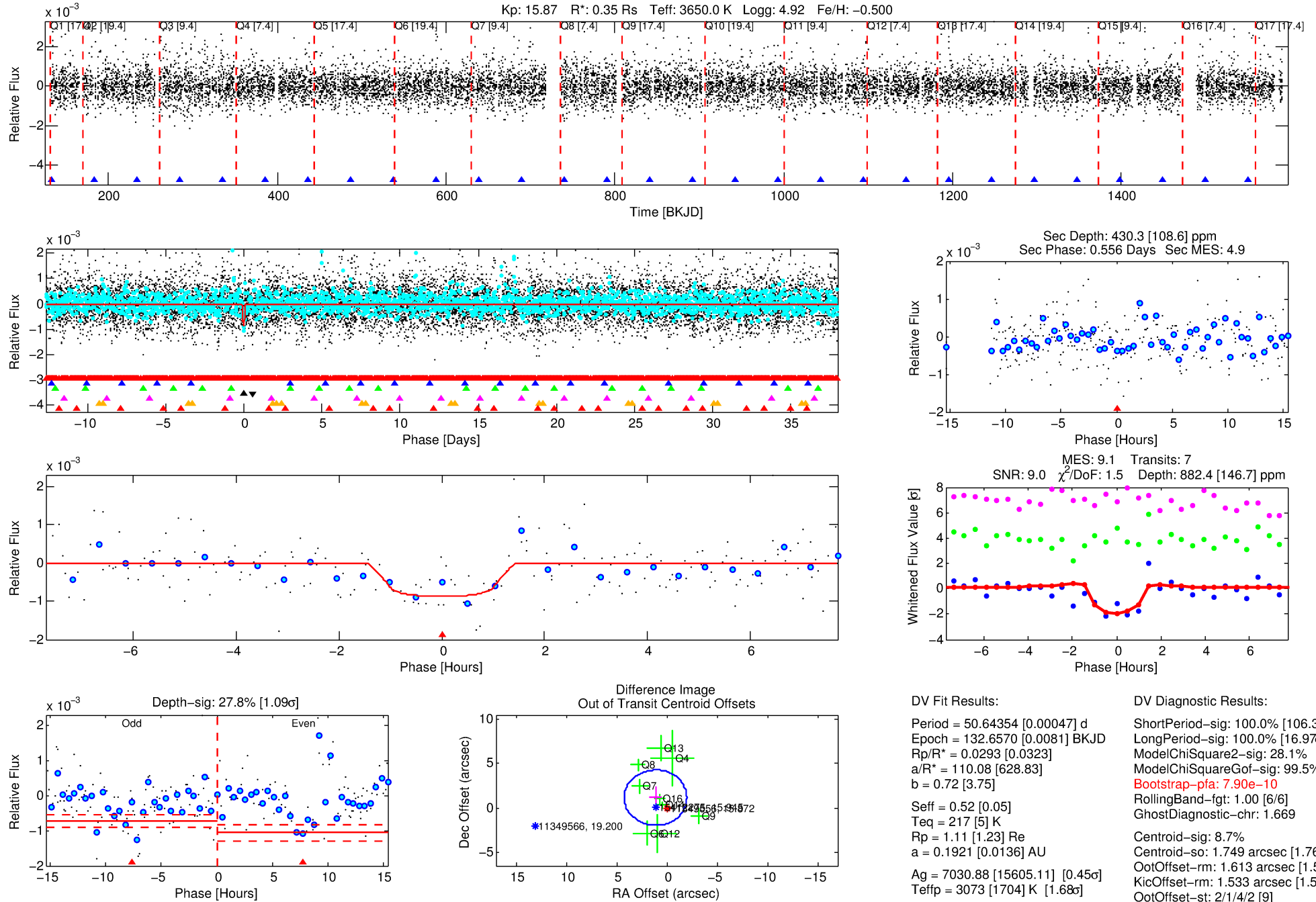
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011349556-04

No Significant Match Found

DV One-Page Summary

KIC: 11349556 Candidate: 4 of 7 Period: 50.644 d



DV Fit Results:

Period = 50.64354 [0.00047] d
Epoch = 132.6570 [0.0081] BKJD
Rp/R* = 0.0293 [0.0323]
a/R* = 110.08 [628.83]
b = 0.72 [3.75]
Seff = 0.52 [0.05]
Teq = 217 [5] K
Rp = 1.11 [1.23] Re
a = 0.1921 [0.0136] AU
Ag = 7030.88 [15605.11] [0.45 σ]
Teffp = 3073 [1704] K [1.68 σ]

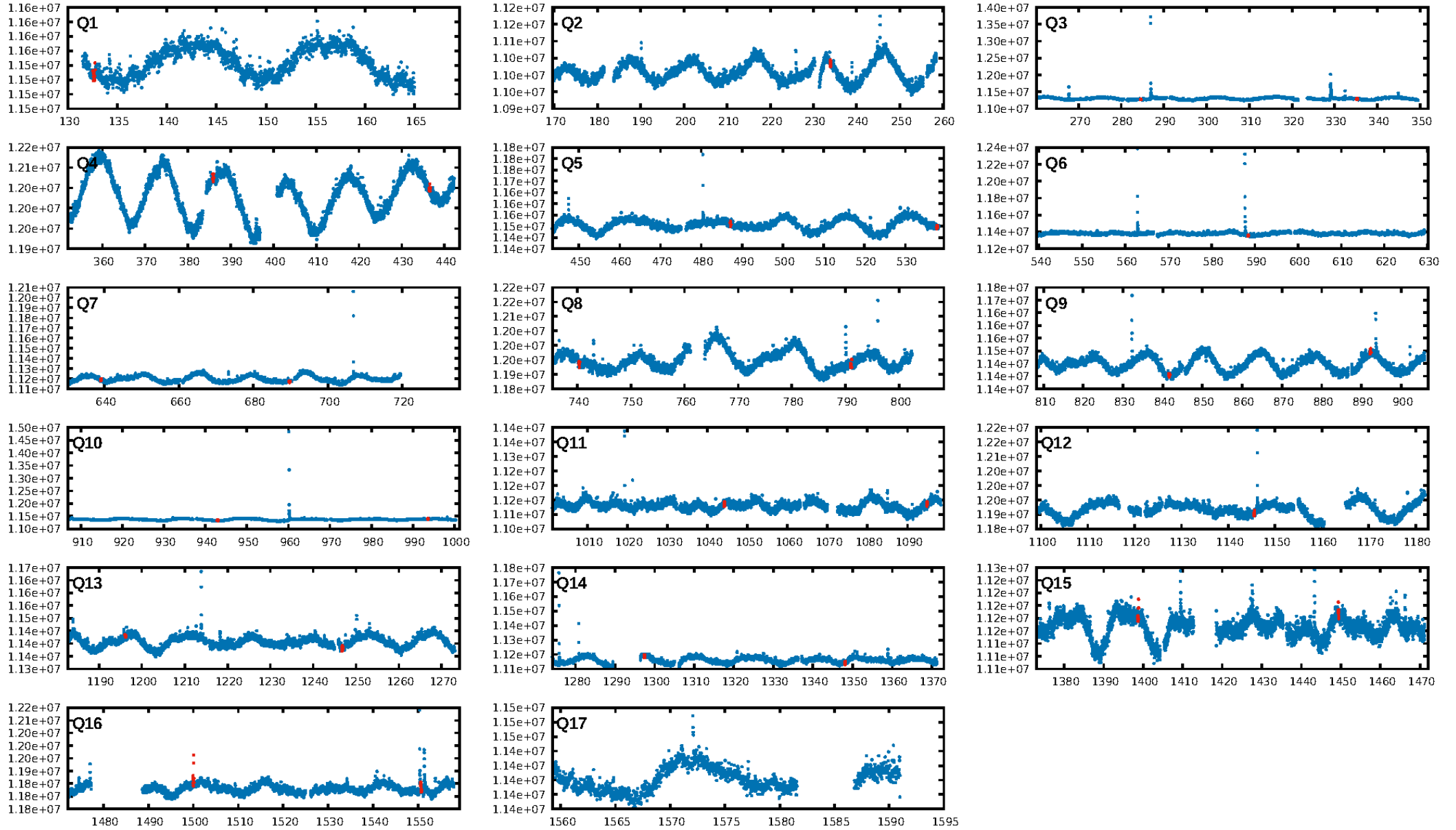
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [106.30 σ]
LongPeriod-sig: 100.0% [16.97 σ]
ModelChiSquare2-sig: 28.1%
ModelChiSquareGof-sig: 99.5%
Bootstrap-pfa: 7.90e-10
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: 1.669
Centroid-sig: 8.7%
Centroid-so: 1.749 arcsec [1.76 σ]
OotOffset-rm: 1.613 arcsec [1.55 σ]
KicOffset-rm: 1.533 arcsec [1.55 σ]
OotOffset-st: 2/1/4/2 [9]
KicOffset-st: 2/1/4/2 [9]
DiffImageQuality-fgm: 0.00 [0/9]
DiffImageOverlap-fno: 0.50 [8/16]

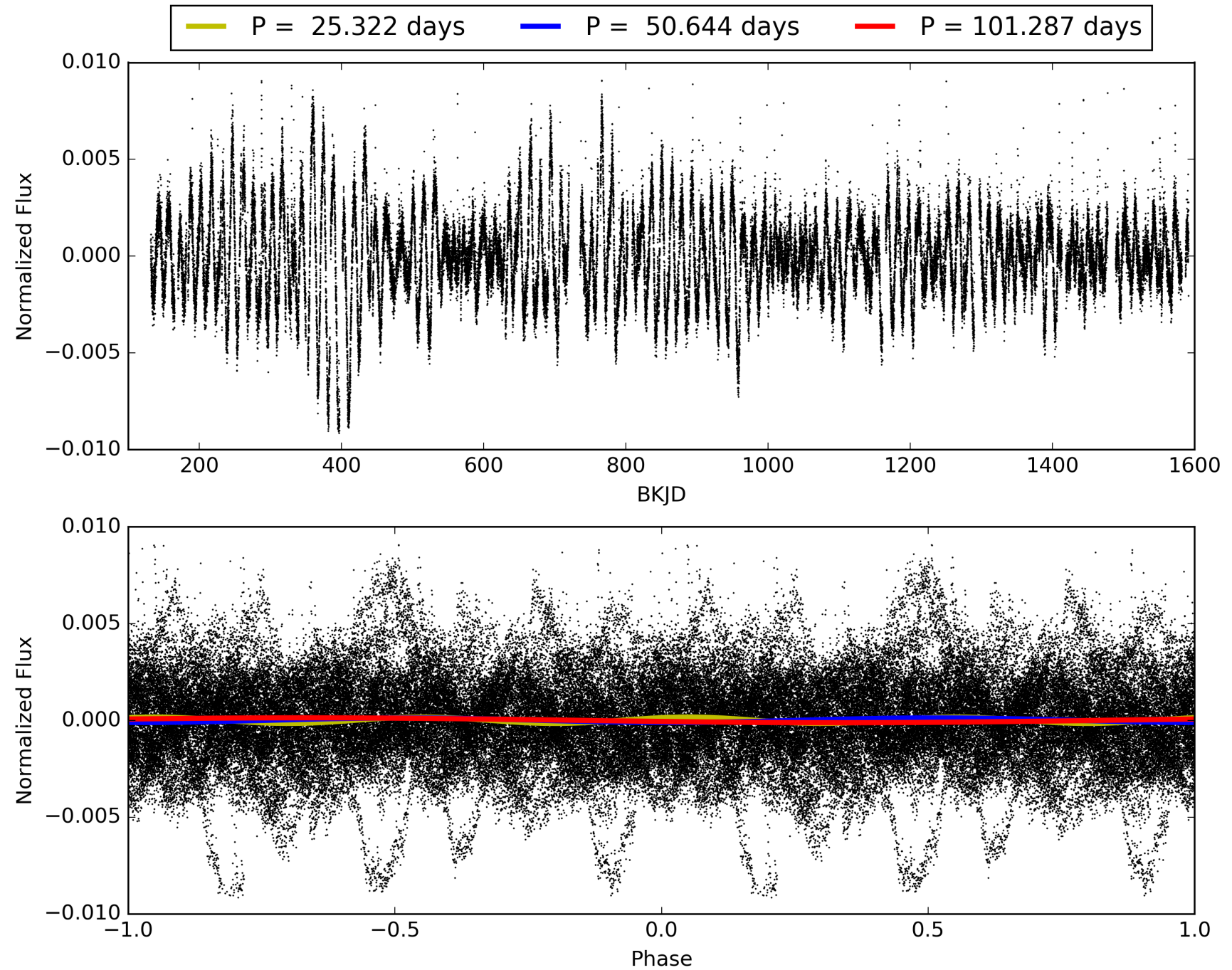
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:58:18 Z

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

TCE 011349556-04, PDC Light Curves

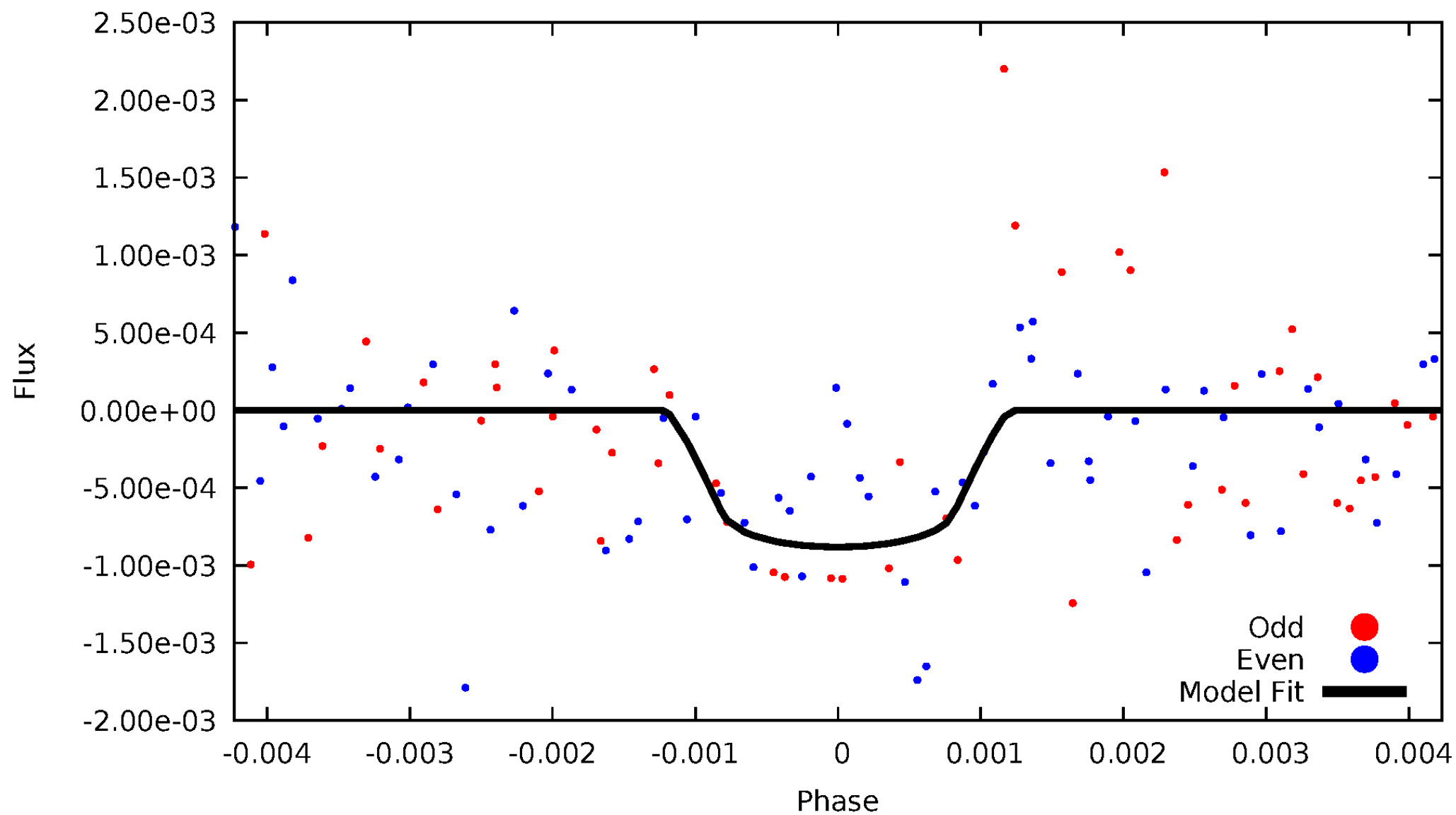


TCE 011349556-04



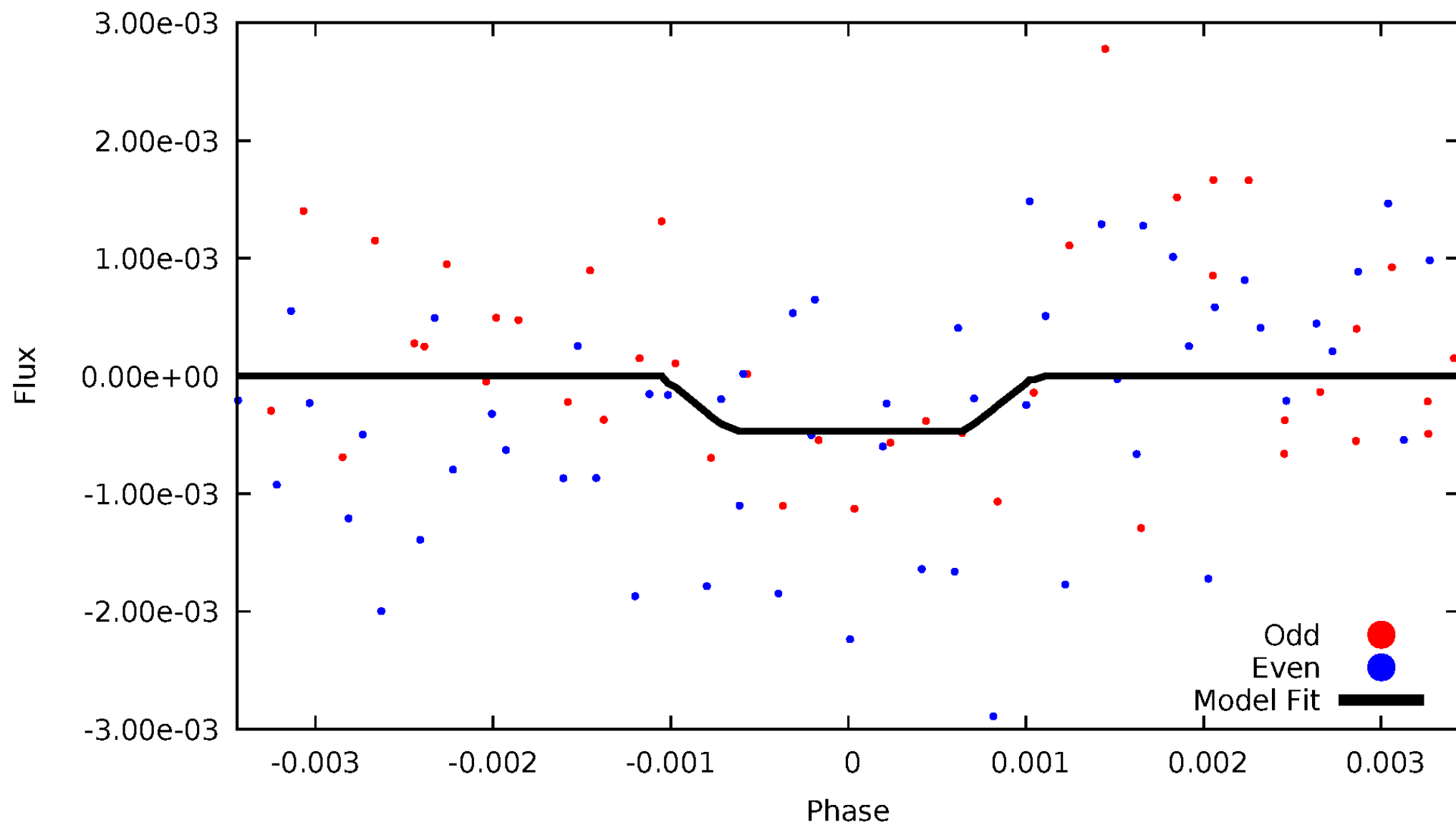
DV Odd/Even

TCE 011349556-04



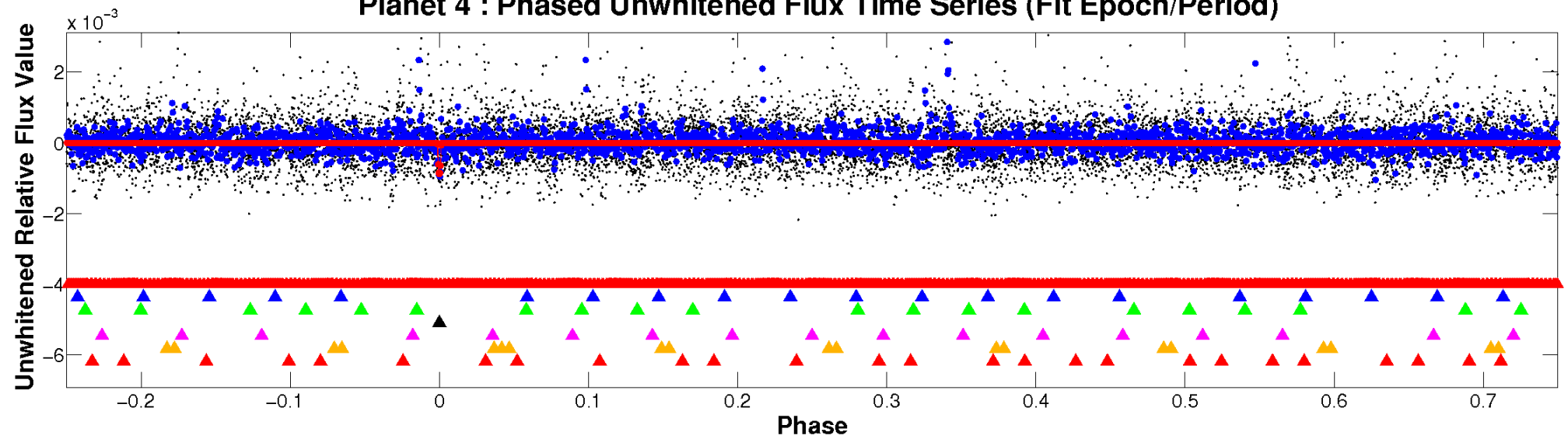
ALT Odd/Even

TCE 011349556-04

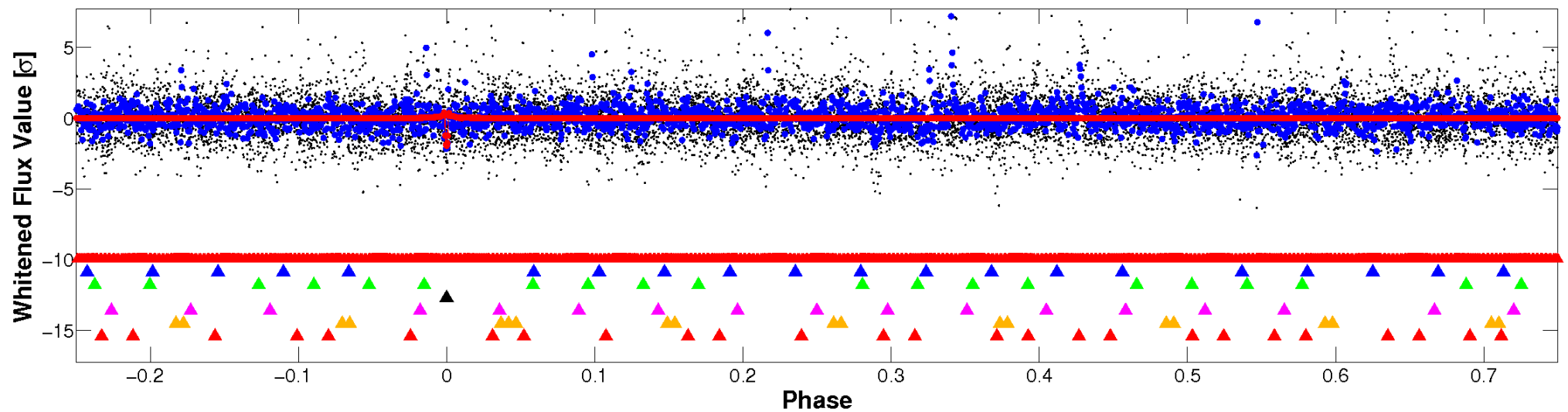


Non-Whitened Vs. Whitened Light Curve

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

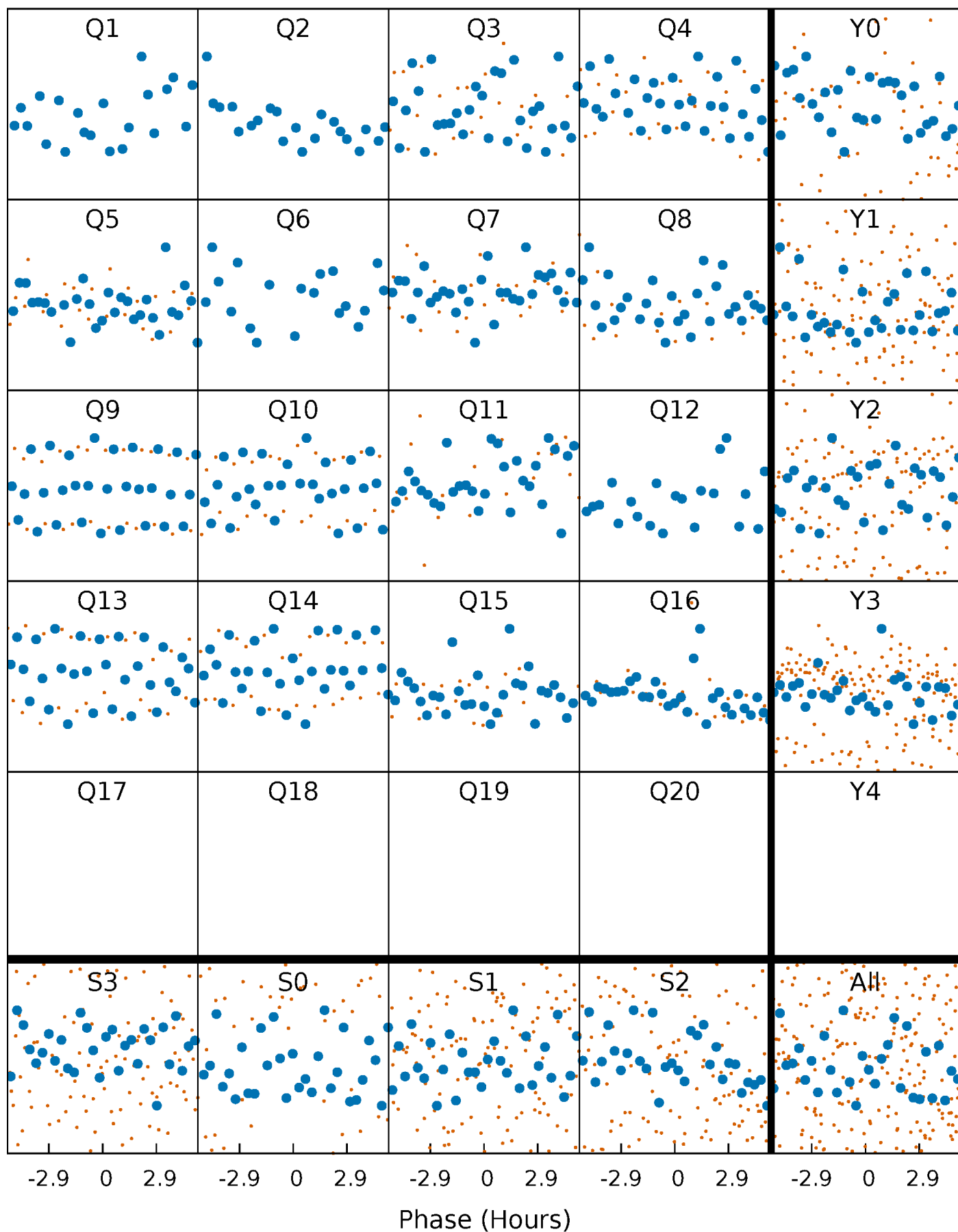


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



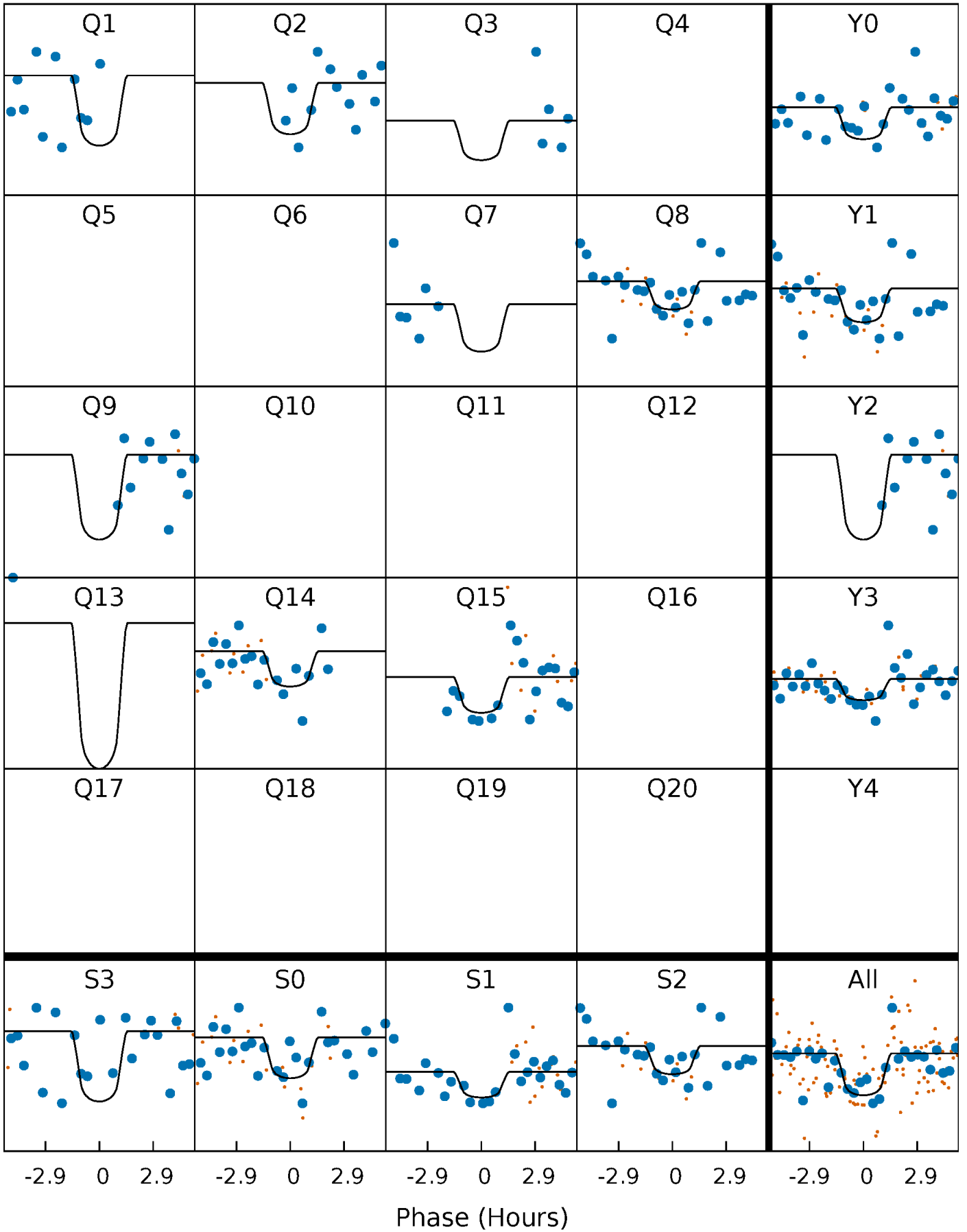
PDC Quarter-Phased Transit Curves

TCE 011349556-04 P= 50.643544 Days $T_0=132.657026$ (BKJD)



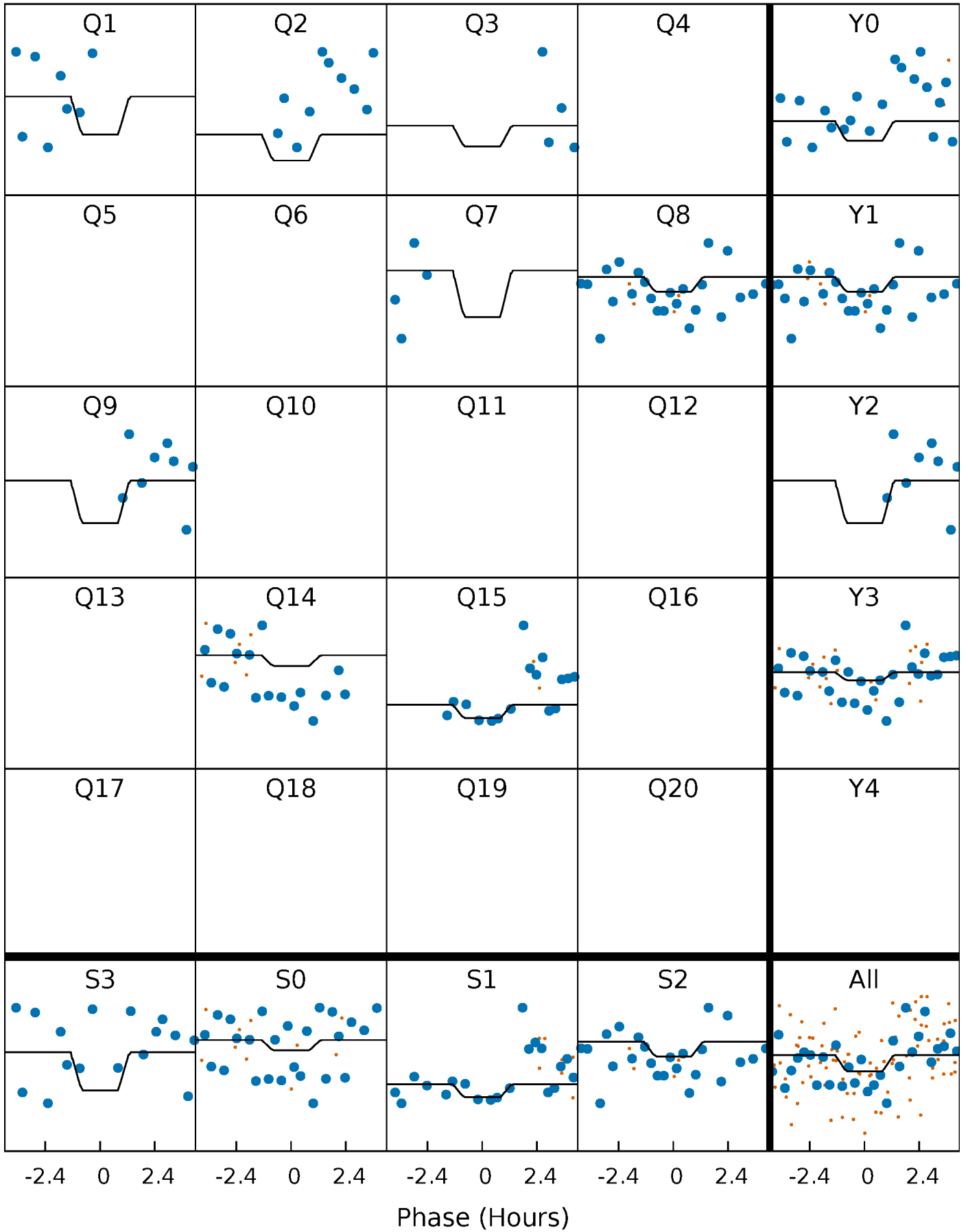
DV Quarter-Phased Transit Curves

TCE 011349556-04 P= 50.643544 Days $T_0=132.657026$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

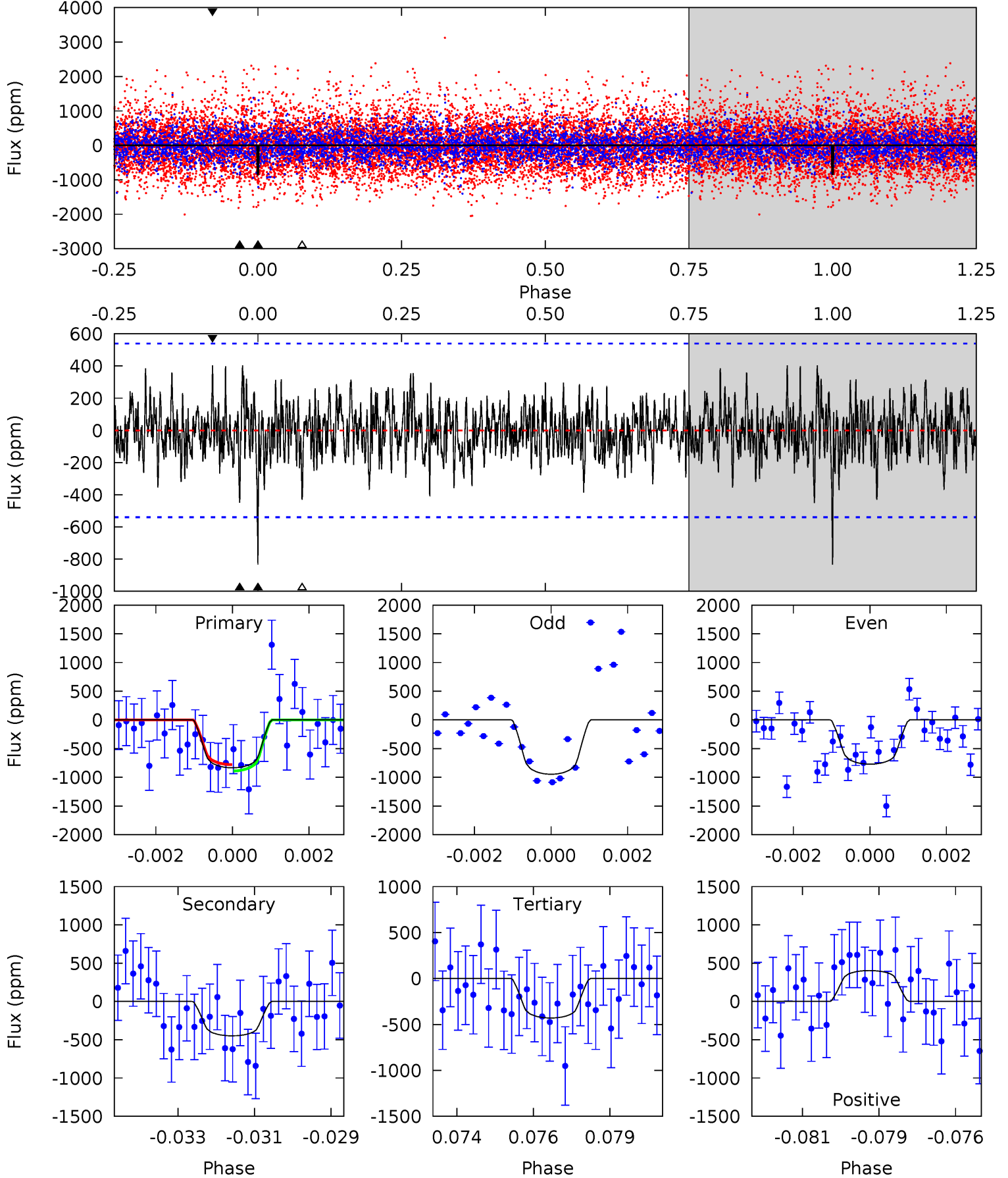
TCE 011349556-04 P= 50.642361 Days $T_0=132.672223$ (BKJD)



DV Model-Shift Uniqueness Test

011349556-04, P = 50.643544 Days, E = 82.013482 Days

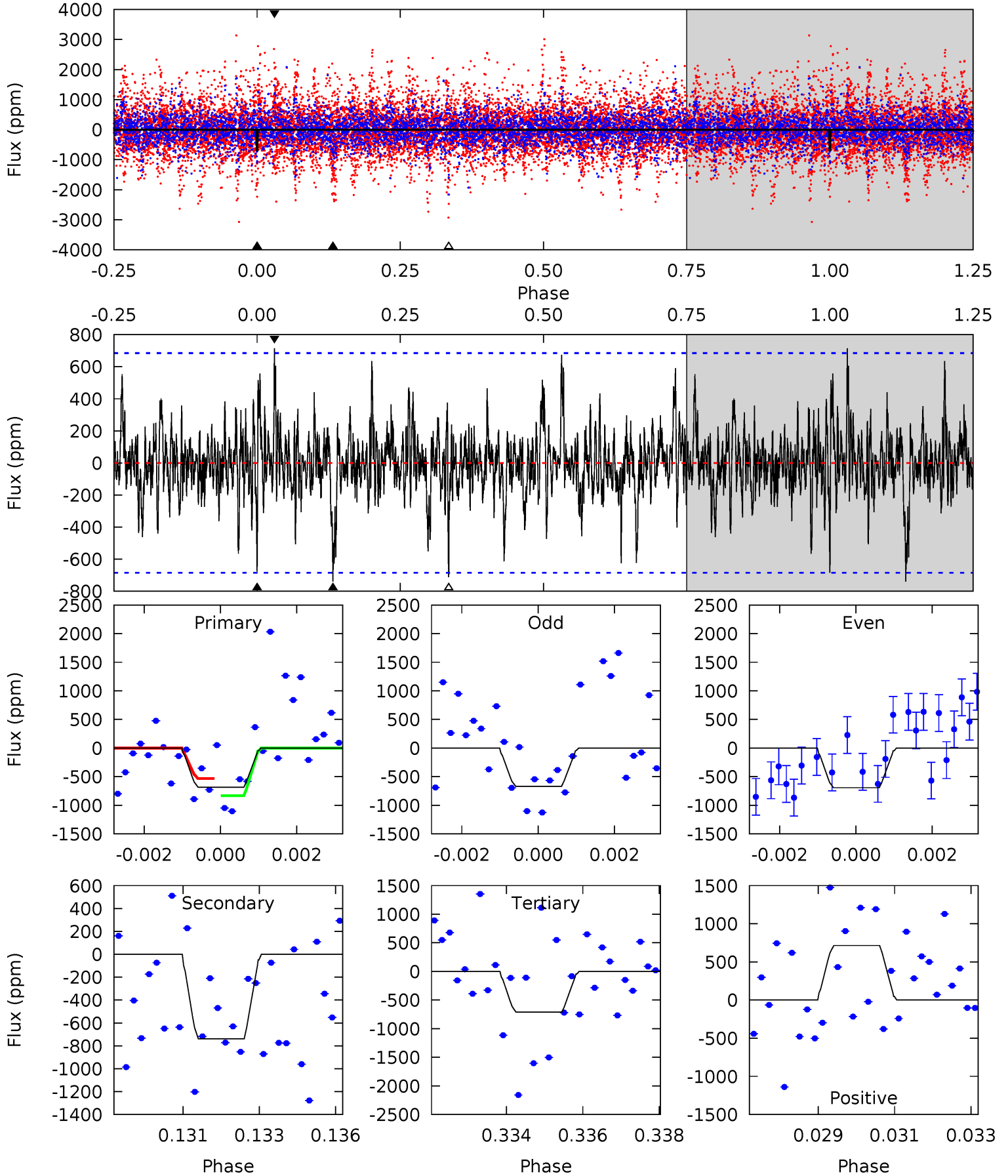
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.19	4.41	4.22	3.96	5.29	3.04	1.27	3.97	4.23	0.18	0.45	0.81	0.84	0.33	0.55



Alt Model-Shift Uniqueness Test

011349556-04, P = 50.642361 Days, E = 82.029862 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.31	5.74	5.53	5.56	5.32	3.08	1.39	-0.21	-0.24	0.21	0.19	0.09	1.02	0.49	1.17



Stellar Parameters For KIC 011349556

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3650^{+43}_{-49}	$4.919^{+0.036}_{-0.036}$	$-0.500^{+0.100}_{-0.100}$	$0.349^{+0.030}_{-0.034}$	$0.370^{+0.029}_{-0.043}$	$12.220^{+2.307}_{-1.762}$
	+1%/-1%	+1%/-1%	+20%/-20%	+9%/-10%	+8%/-12%	+19%/-14%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 011349556-04 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-449 ± 102	$1.42^{+1.12}_{-0.92}$	303^{+6}_{-6}	3051^{+1244}_{-454}	4474^{+30421}_{-3158}
Alt.	-739 ± 129	$1.27^{+1.07}_{-0.88}$	303^{+6}_{-6}	3406^{+1788}_{-542}	9165^{+84935}_{-6407}

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 $A_{obs} \gg 1.0$

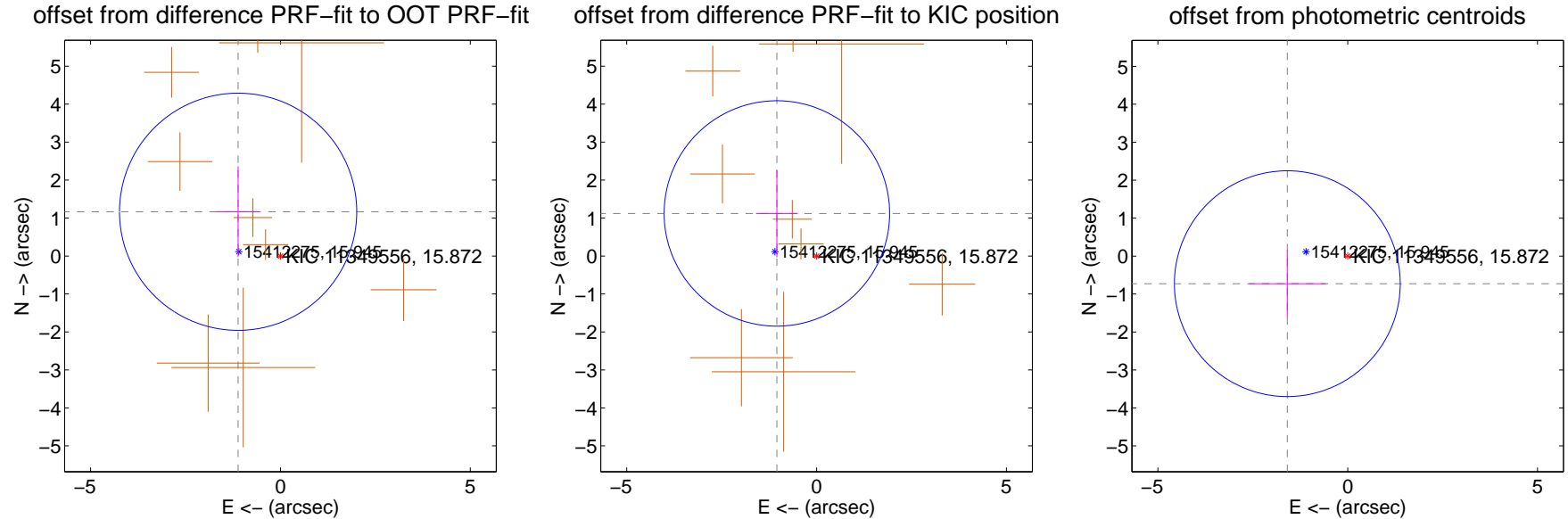
DV Centroid Data

Supplemental centroid analysis for 011349556-04. Kepler magnitude: 15.87. Transit SNR 8.97

There are 0 quarters with good PRF difference image offsets

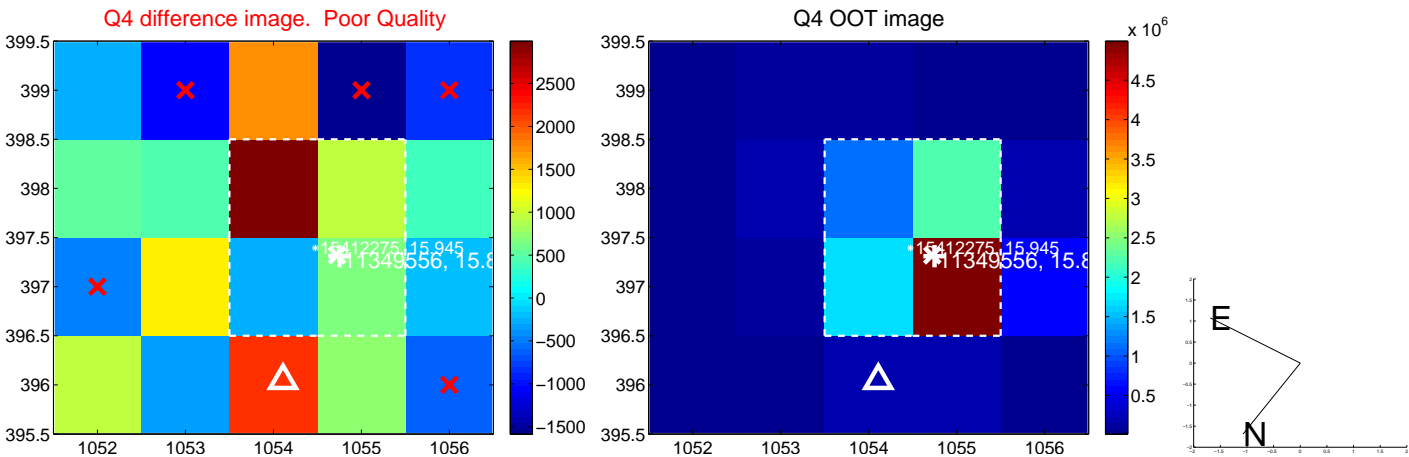
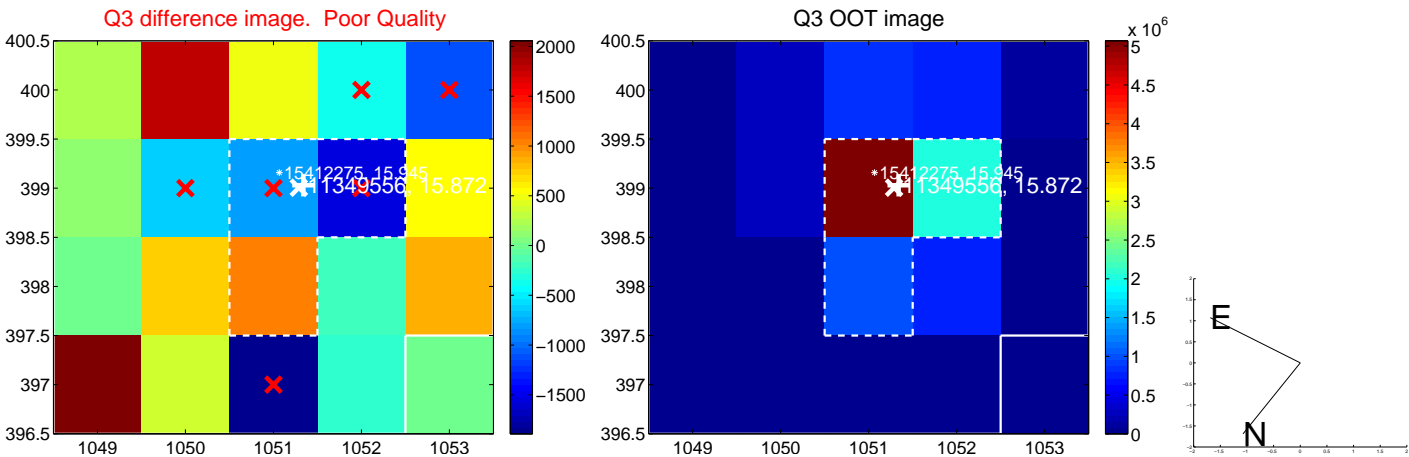
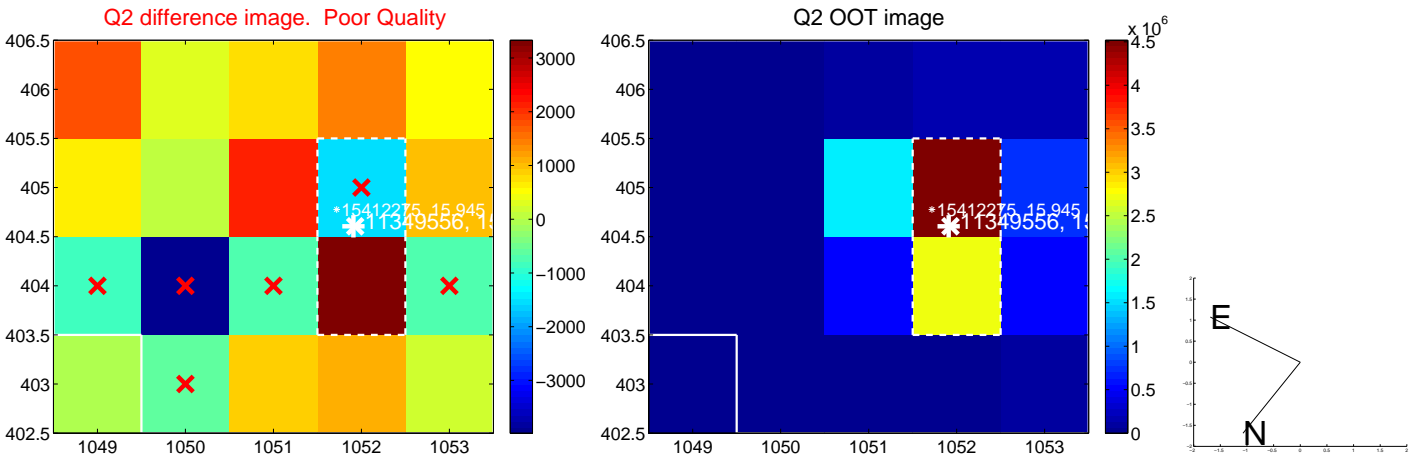
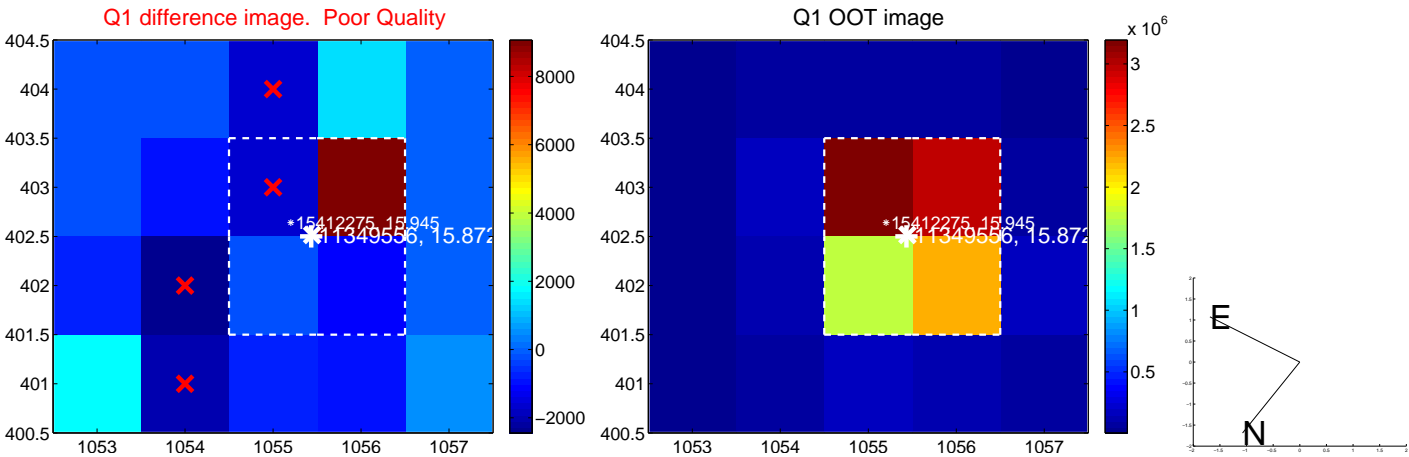
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.613 ± 1.041	1.55	1.115 ± 0.569	1.166 ± 1.198
PRF-fit source offset from KIC position	1.533 ± 0.989	1.55	1.045 ± 0.548	1.121 ± 1.155
photometric centroid source offset	1.75 ± 0.99	1.76	1.59 ± 1.01	-0.73 ± 0.89

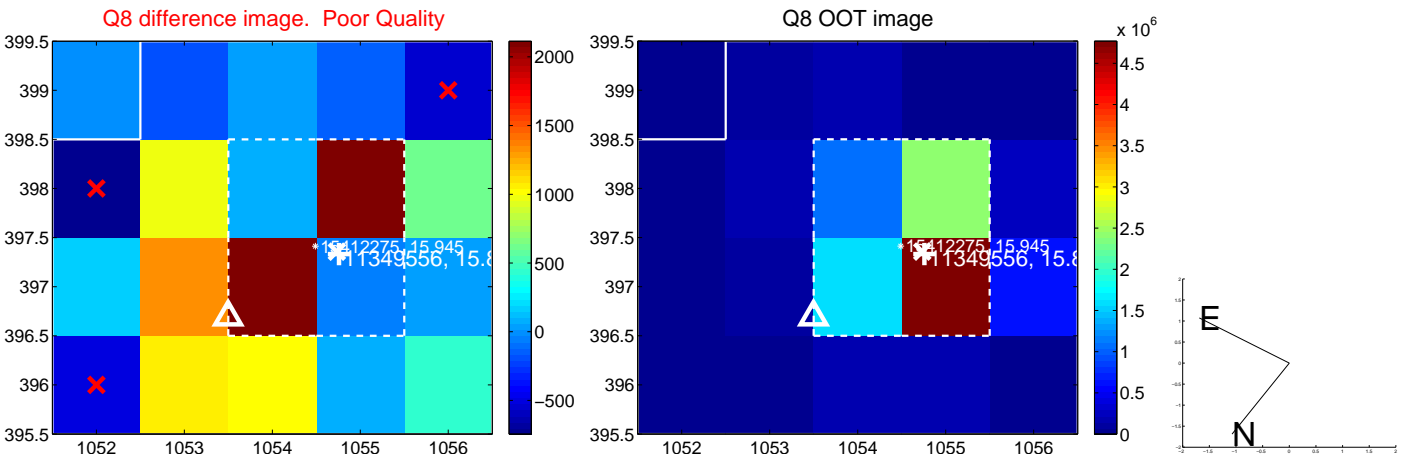
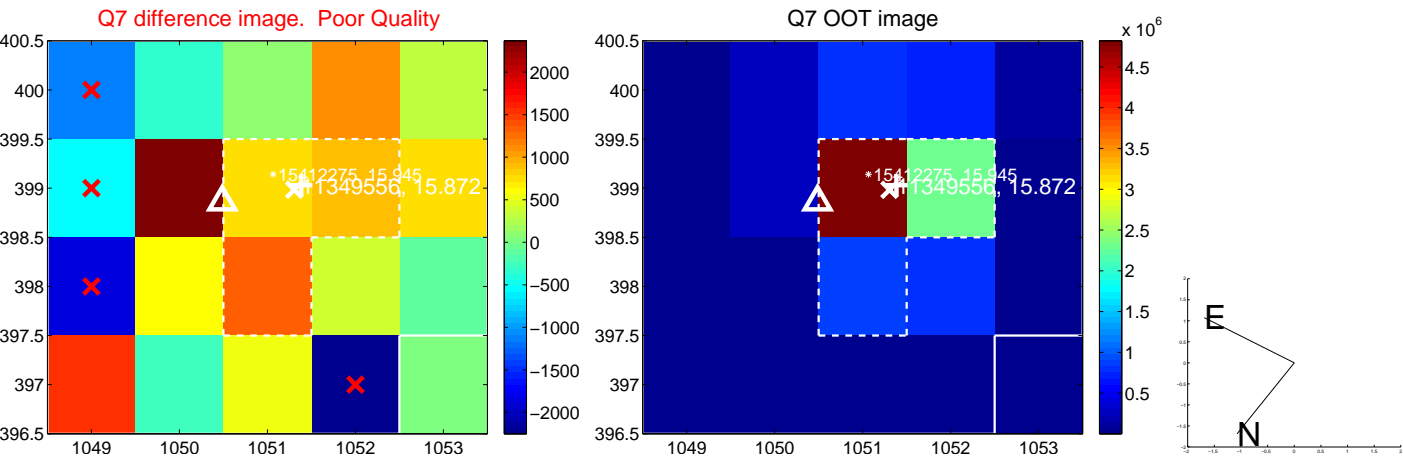
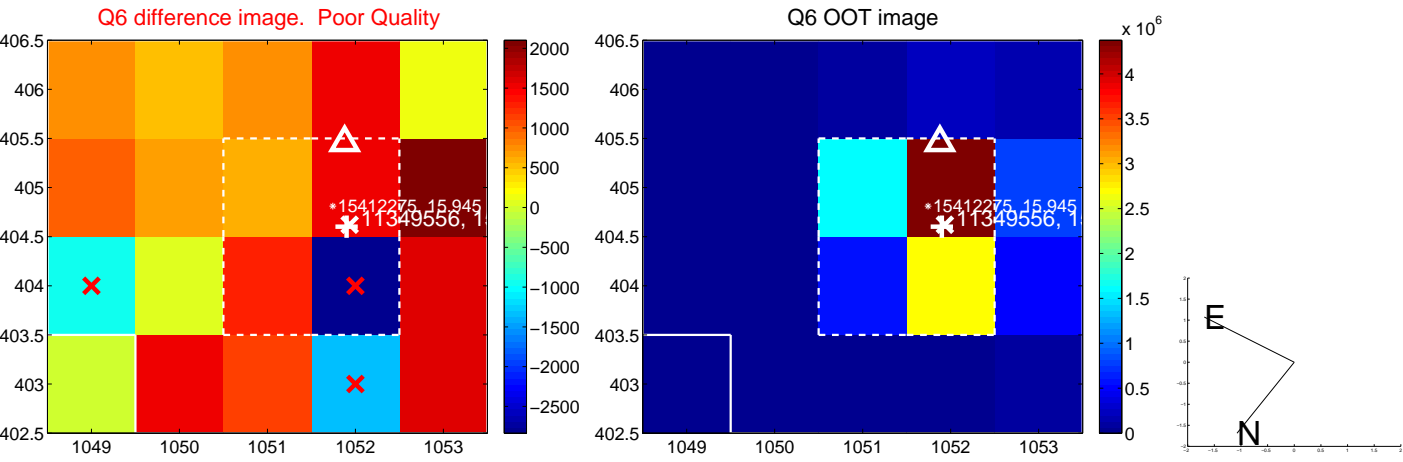
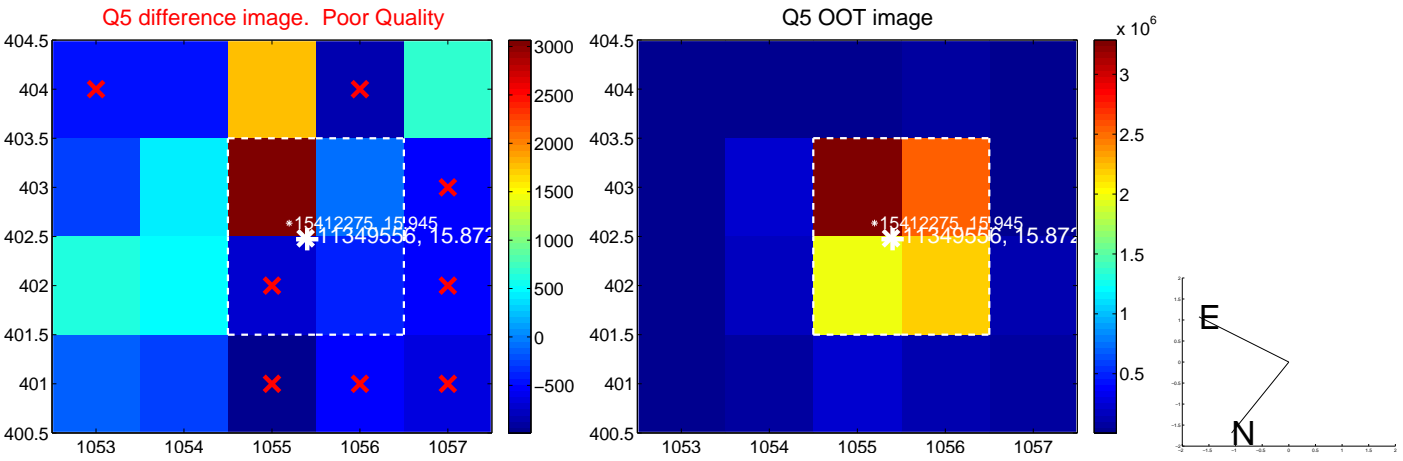


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

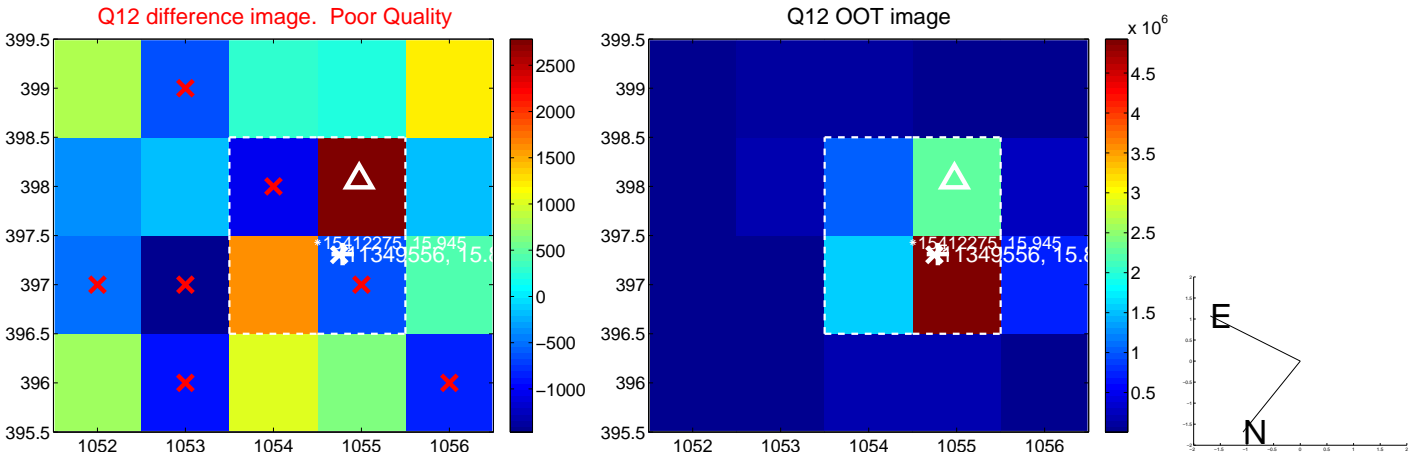
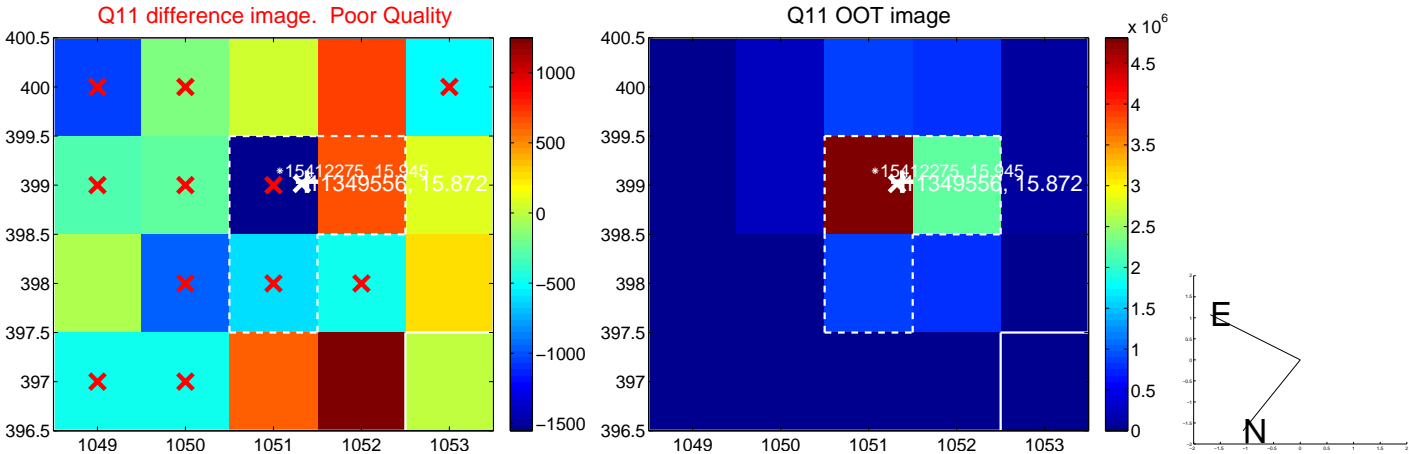
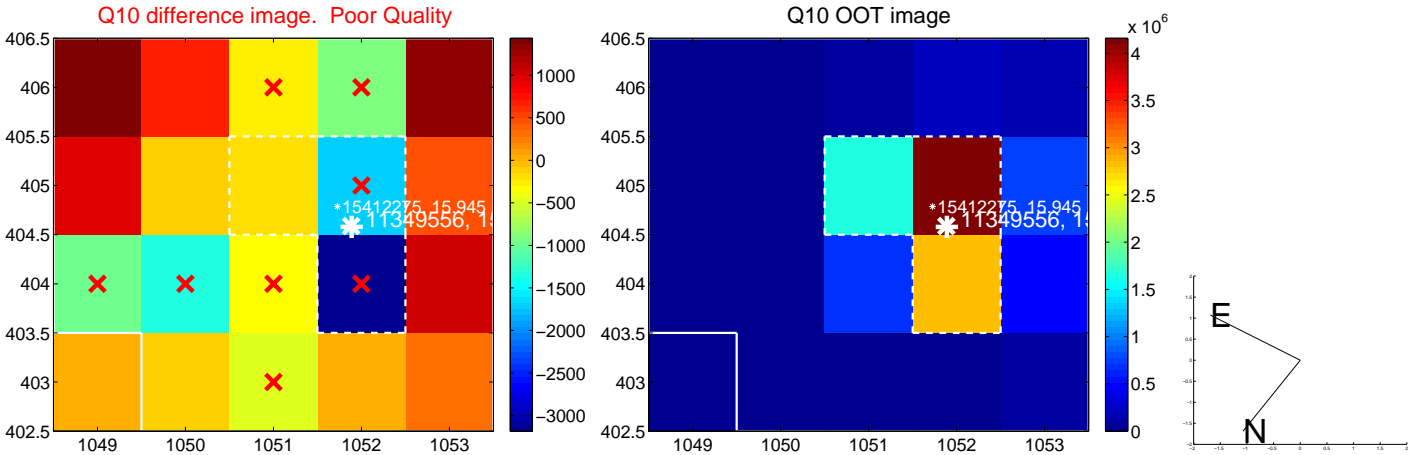
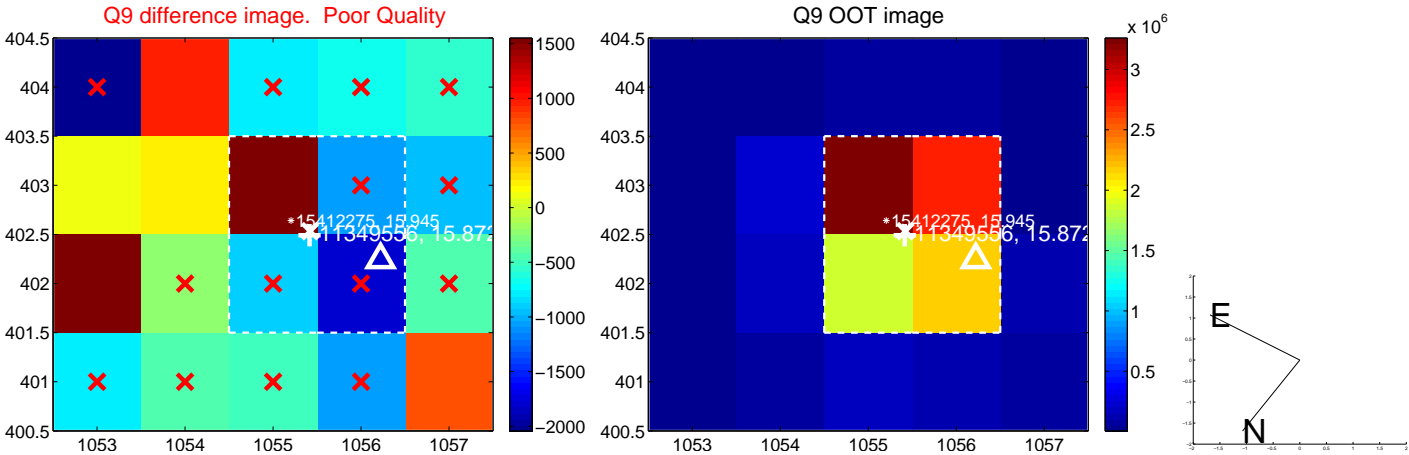
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



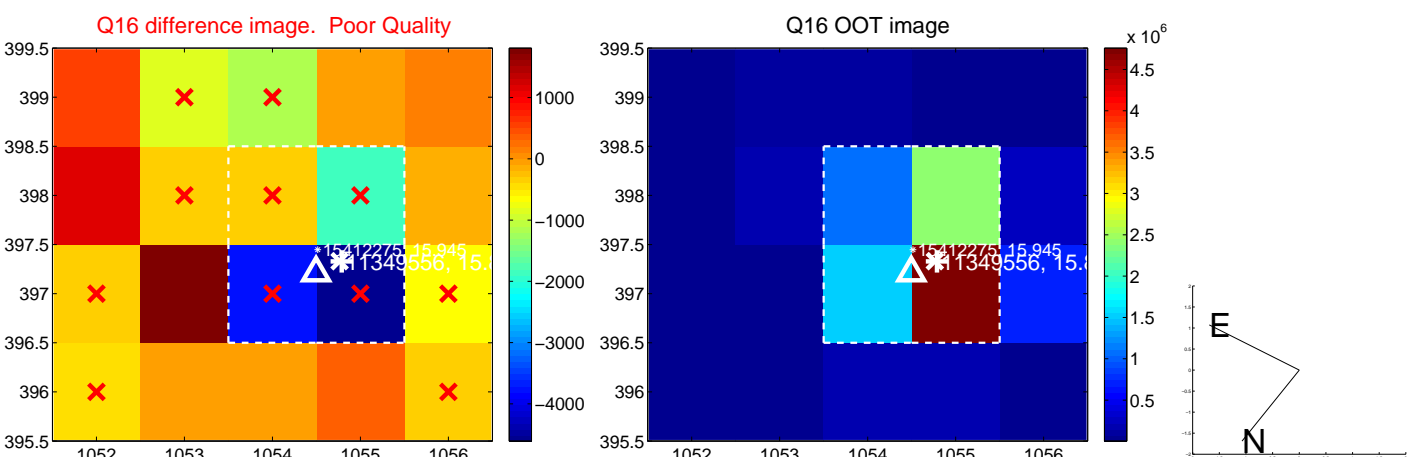
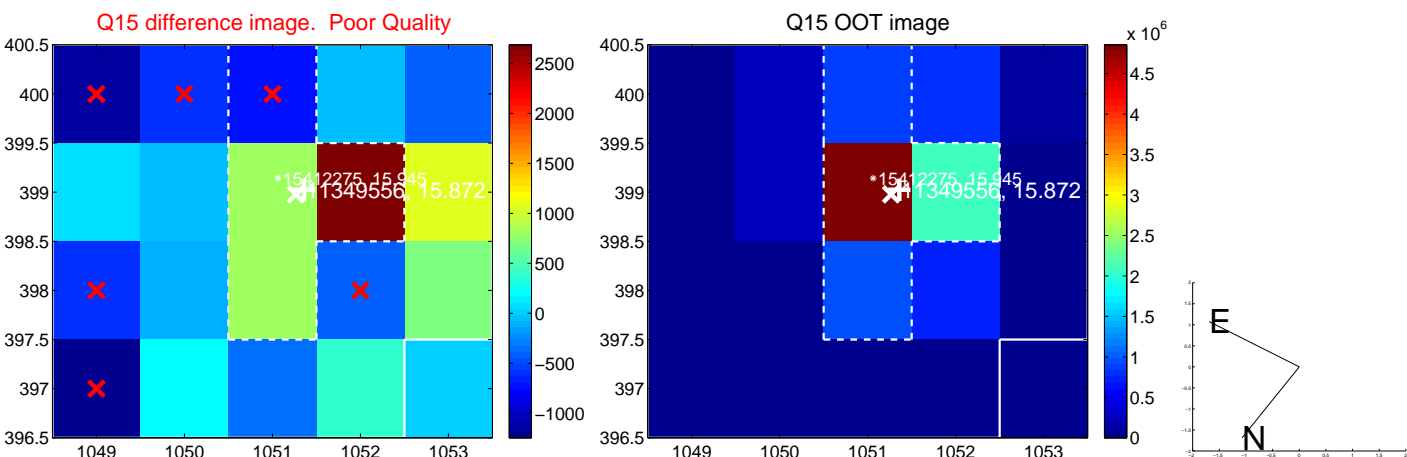
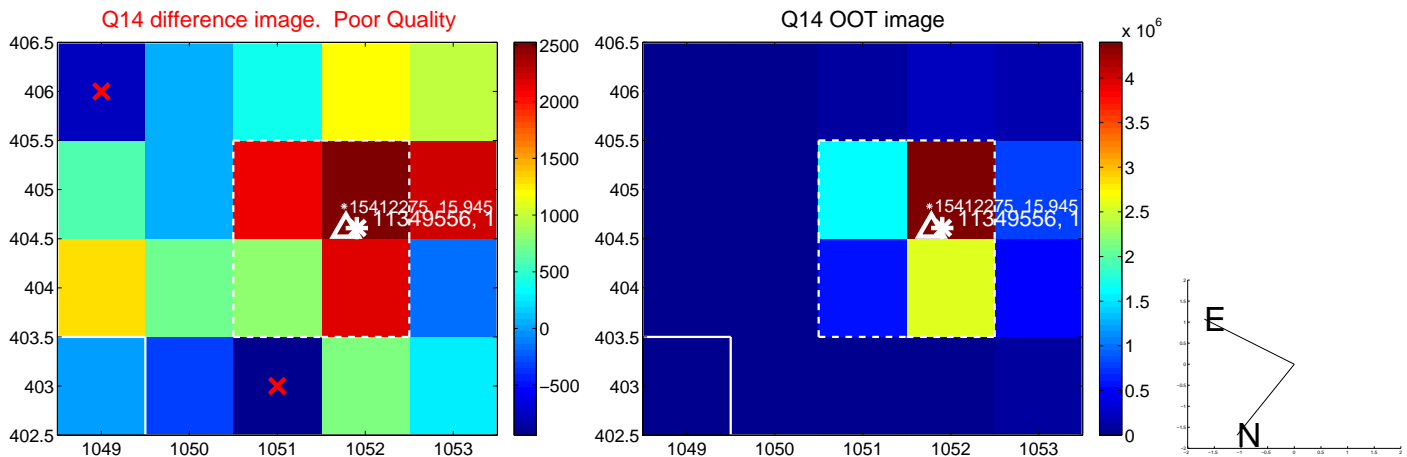
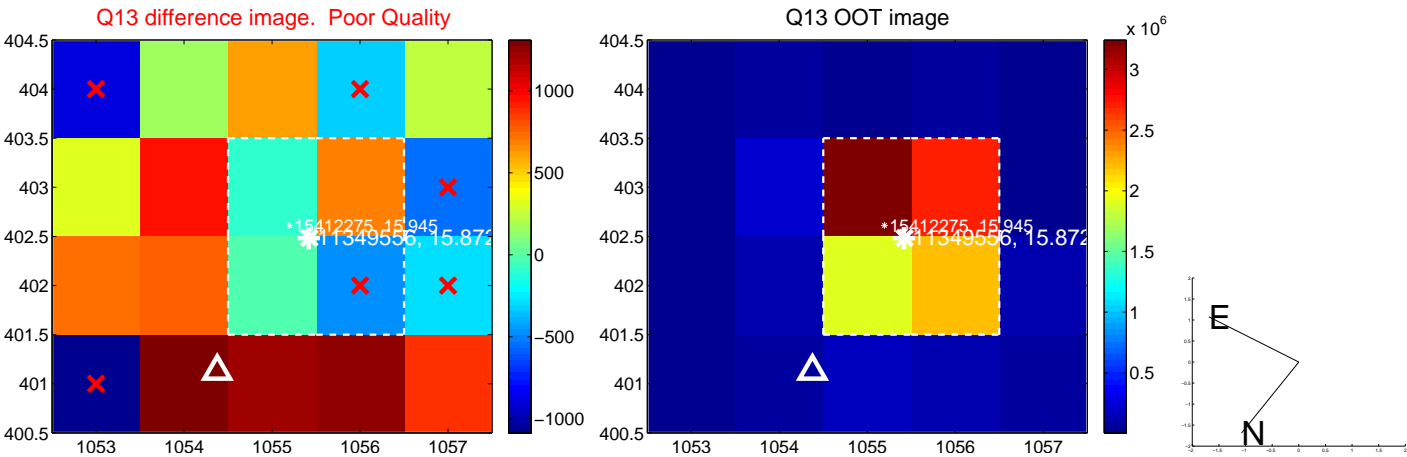
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



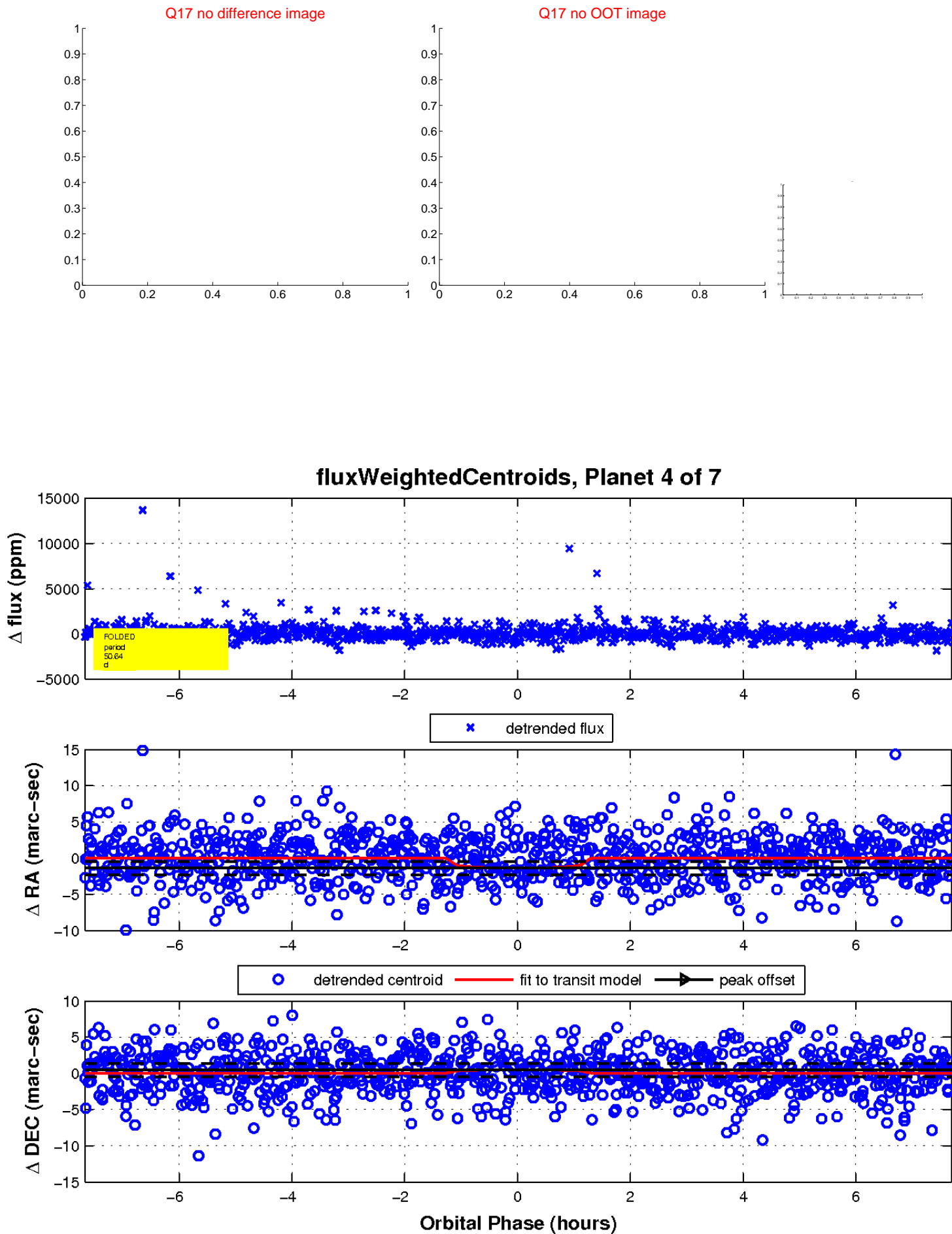
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

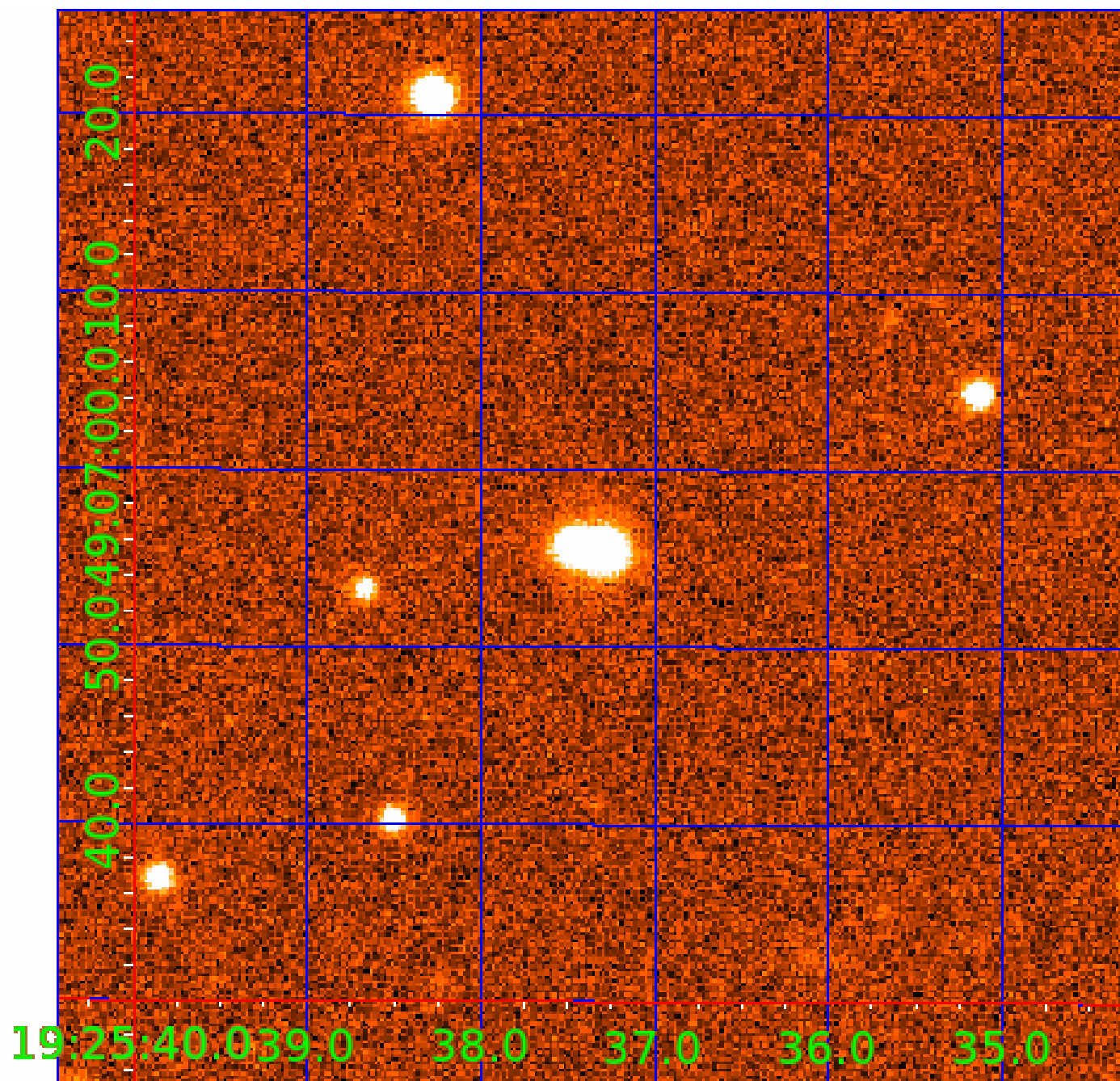


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011349556

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})
011349556-01	OBS	No	1.692946	131.654327	94.8	10.749	10.0	11.5	0.35	3650	0.36	48.73
011349556-02	OBS	No	74.847656	155.754153	1510.0	5.463	25.2	10.4	0.35	3650	1.45	0.31
011349556-04	OBS	No	50.643544	132.657026	882.4	2.569	9.1	9.0	0.35	3650	1.11	0.53
011349556-05	OBS	No	85.309875	147.730851	556.7	7.288	10.1	5.3	0.35	3650	0.84	0.26
011349556-06	OBS	No	78.807260	134.518839	759.1	2.715	8.2	6.8	0.35	3650	1.00	0.29
011349556-07	OBS	No	57.324570	152.538208	334.2	9.091	8.4	4.0	0.35	3650	0.67	0.45

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011349556-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
011349556-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011349556-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
011349556-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011349556-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
011349556-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT

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

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

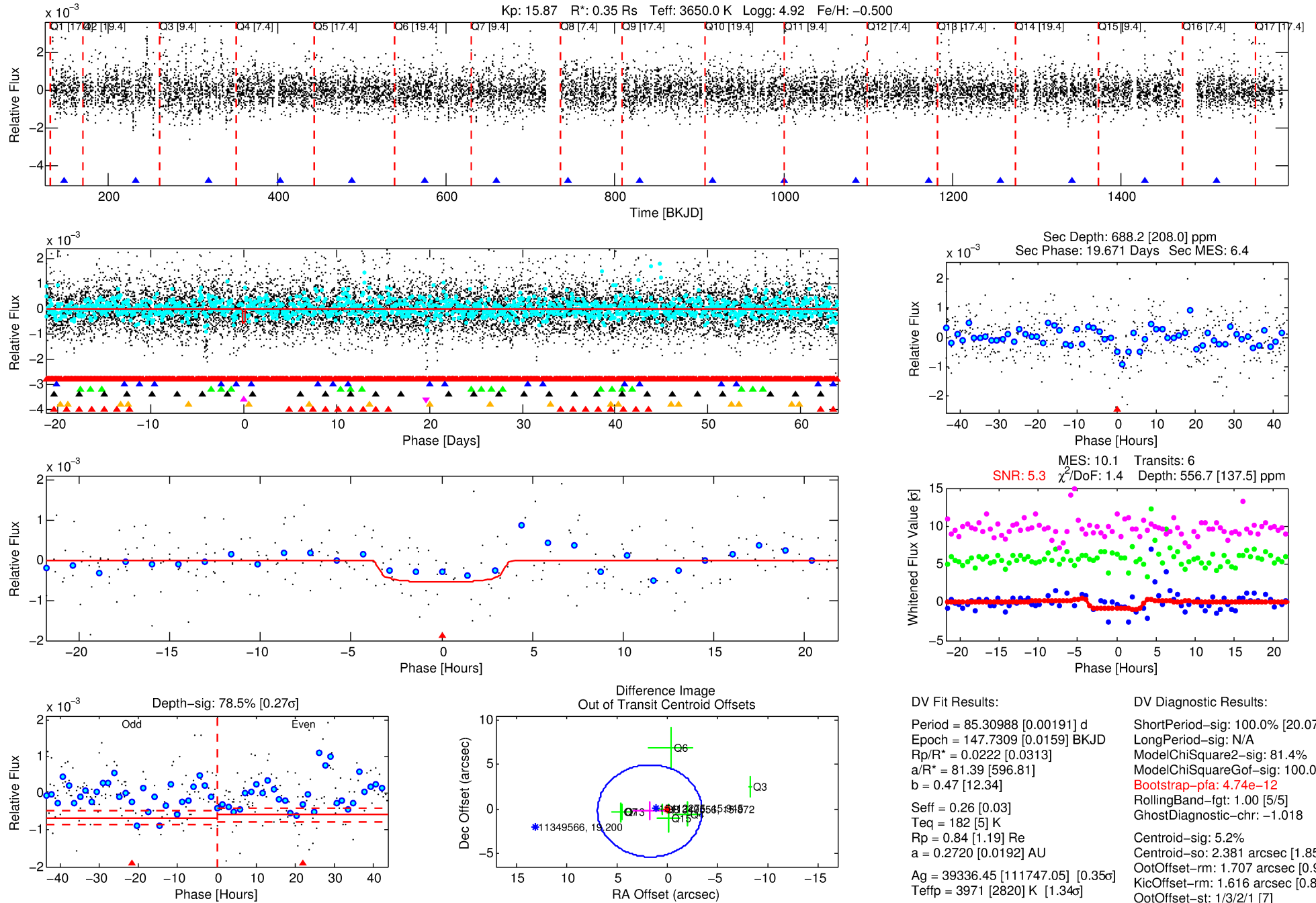
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011349556-05

No Significant Match Found

DV One-Page Summary

KIC: 11349556 Candidate: 5 of 7 Period: 85.310 d



DV Fit Results:

Period = 85.30988 [0.00191] d
Epoch = 147.7309 [0.0159] BKJD
Rp/R* = 0.0222 [0.0313]
a/R* = 81.39 [596.81]
b = 0.47 [12.34]
Seff = 0.26 [0.03]
Teq = 182 [5] K
Rp = 0.84 [1.19] Re
a = 0.2720 [0.0192] AU
Ag = 39336.45 [111747.05] [0.35 σ]
Teffp = 3971 [2820] K [1.34 σ]

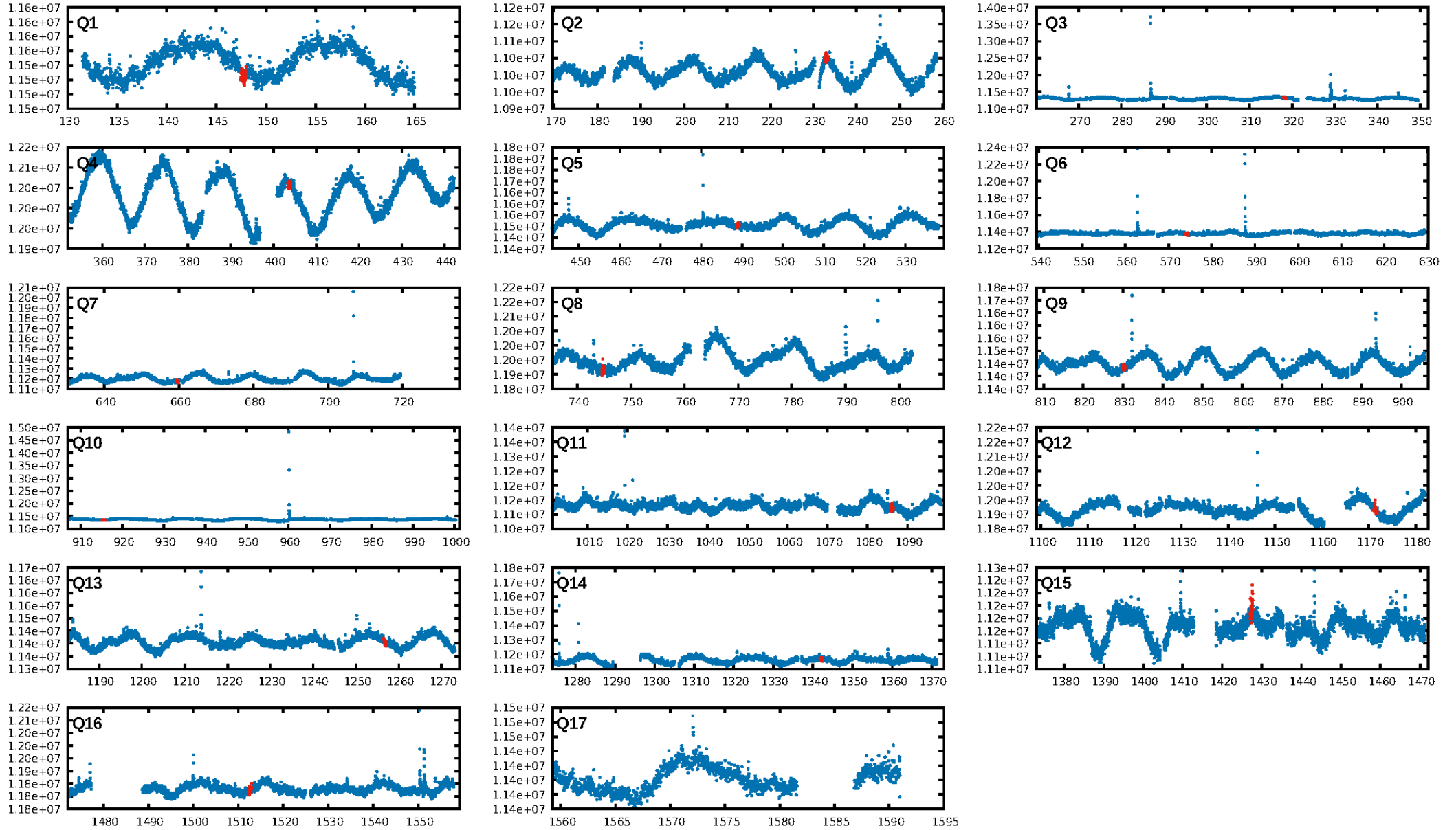
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [20.07 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 81.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.74e-12
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: -1.018
Centroid-sig: 5.2%
Centroid-so: 2.381 arcsec [1.85 σ]
OotOffset-rm: 1.707 arcsec [0.99 σ]
KicOffset-rm: 1.616 arcsec [0.84 σ]
OotOffset-st: 1/3/2/1 [7]
KicOffset-st: 1/3/2/1 [7]
DiffImageQuality-fgm: 0.00 [0/7]
DiffImageOverlap-fno: 0.07 [1/15]

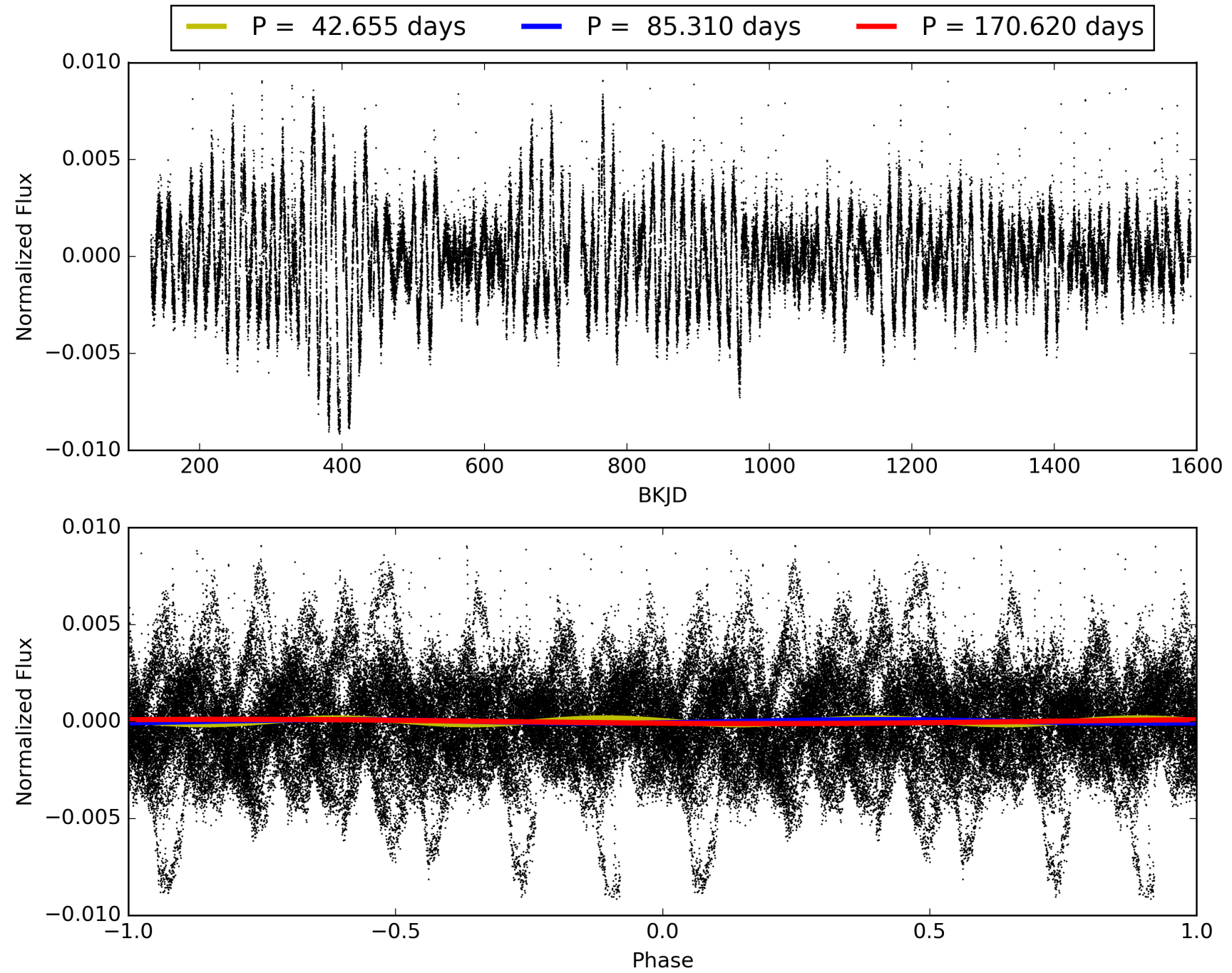
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:58:21 Z

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

TCE 011349556-05, PDC Light Curves

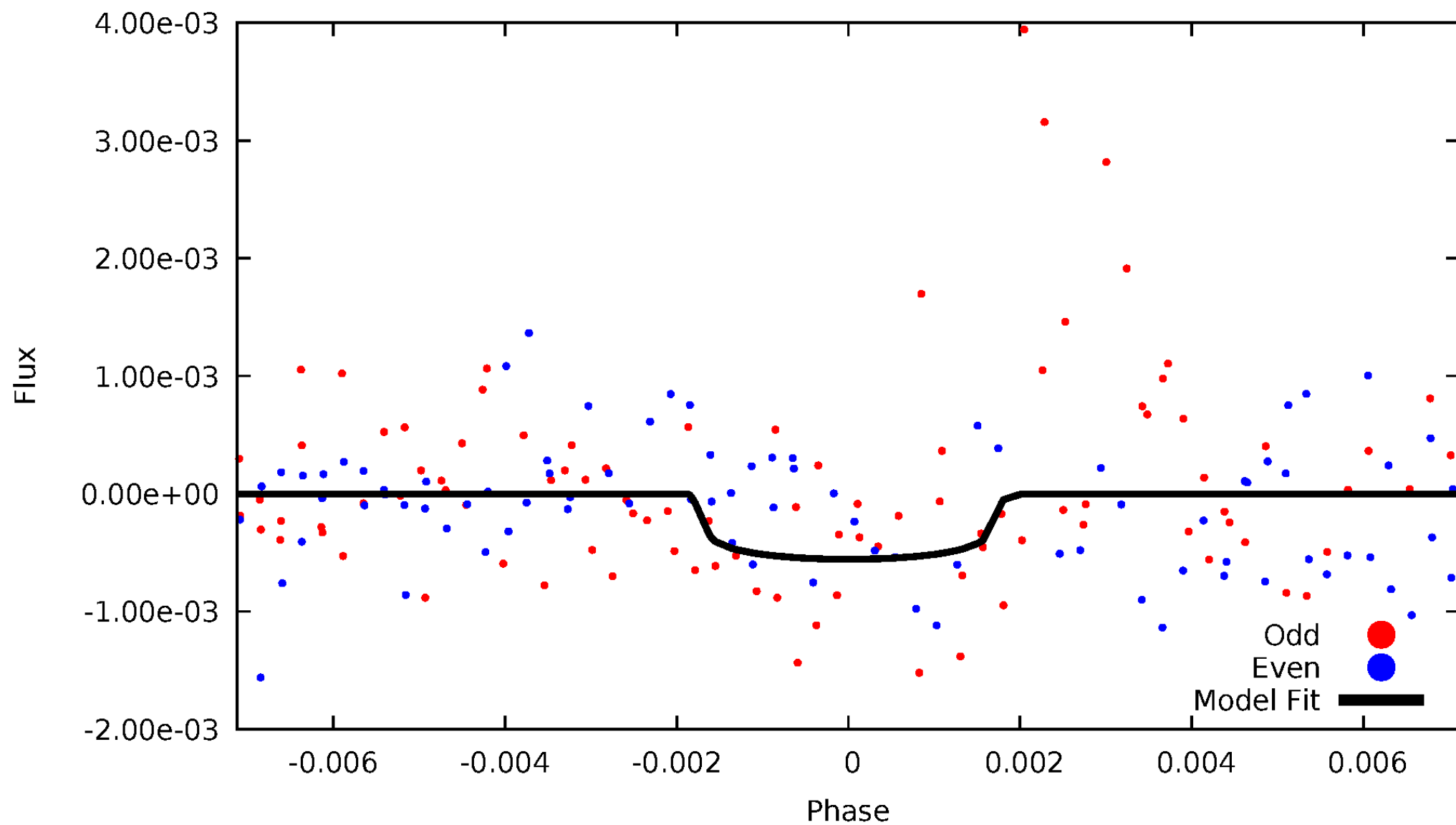


TCE 011349556-05



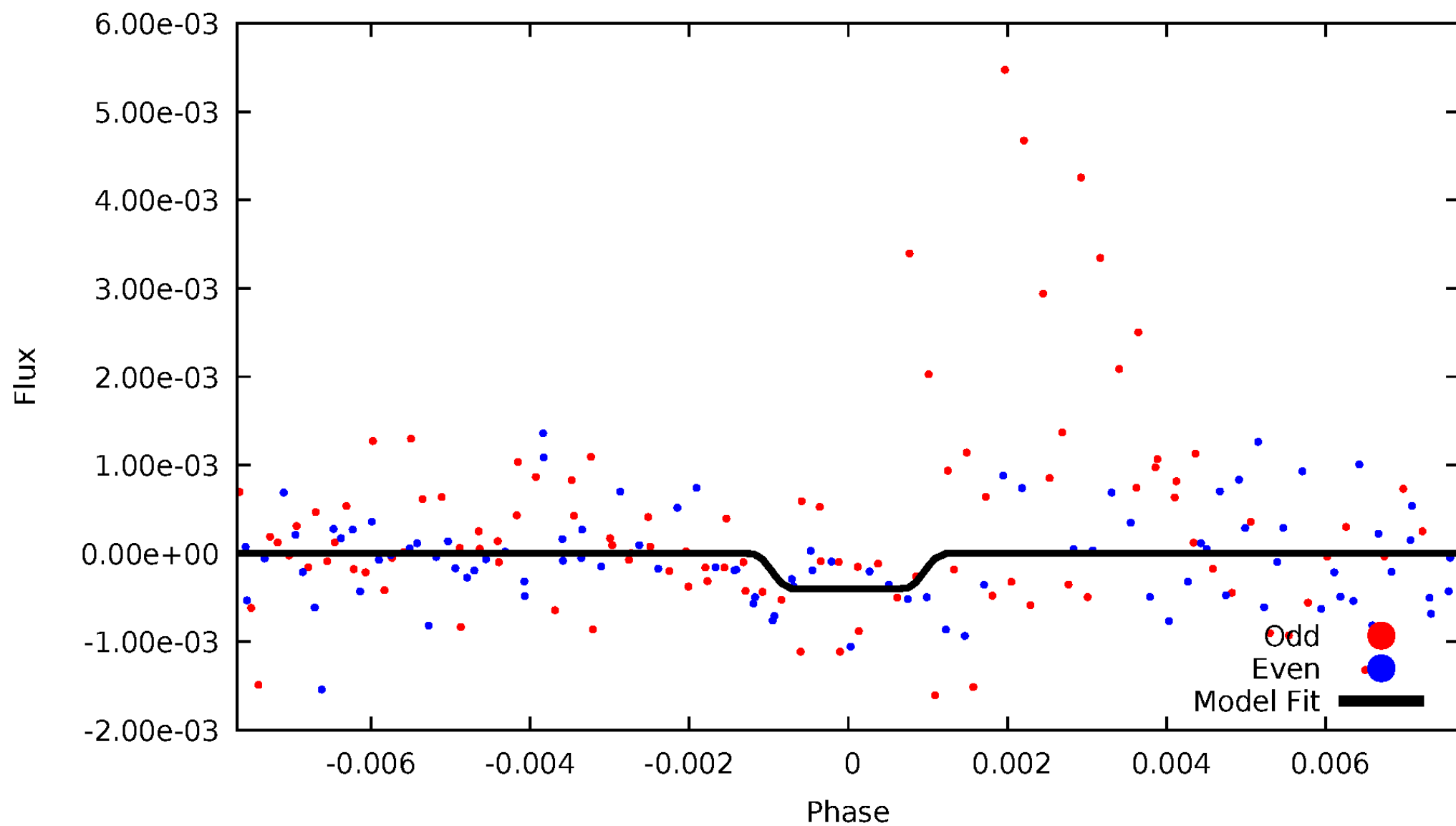
DV Odd/Even

TCE 011349556-05



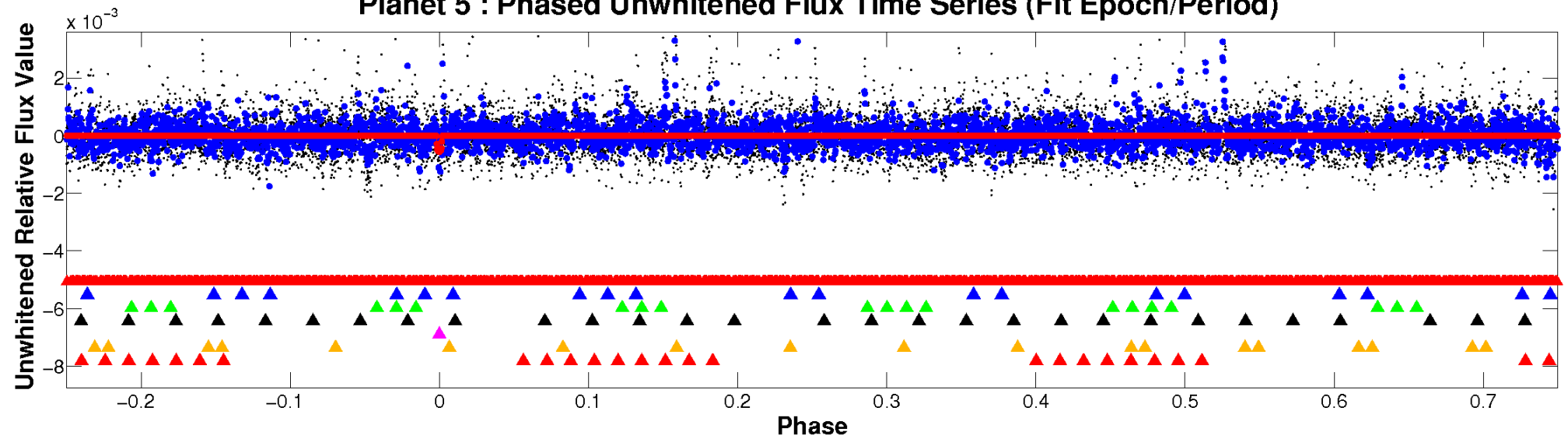
ALT Odd/Even

TCE 011349556-05

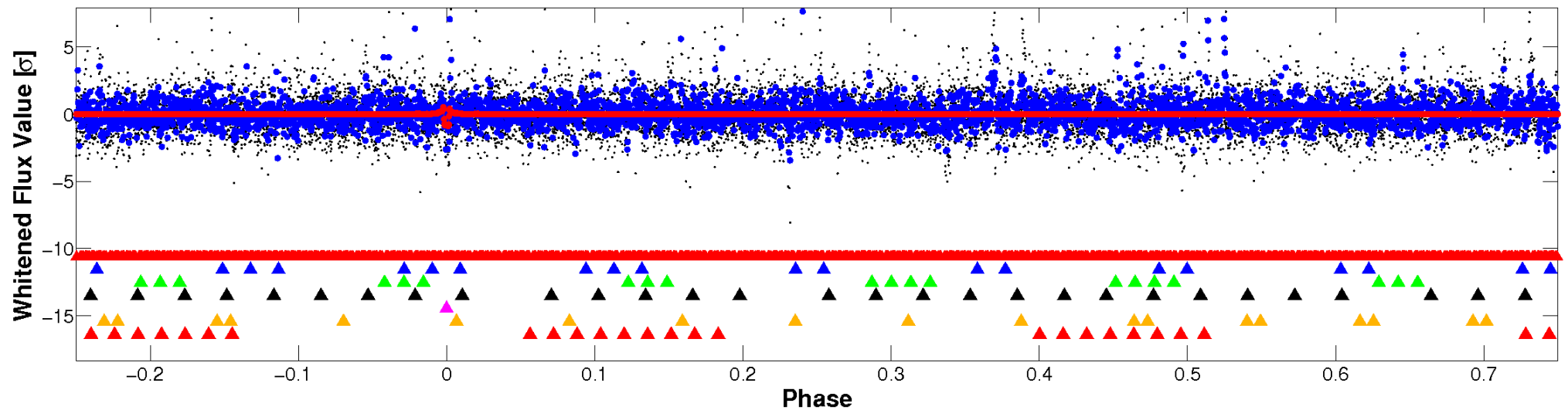


Non-Whitened Vs. Whitened Light Curve

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

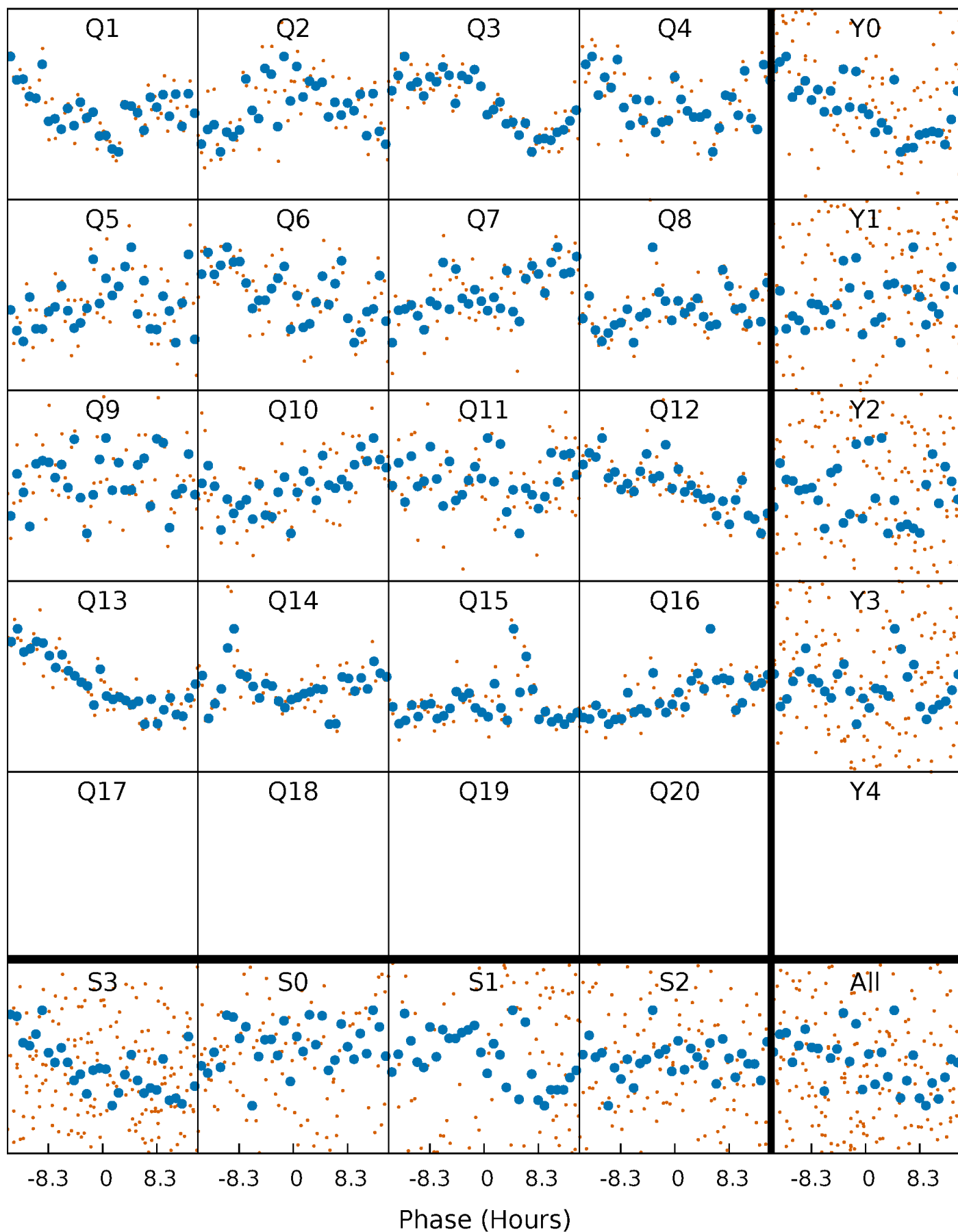


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



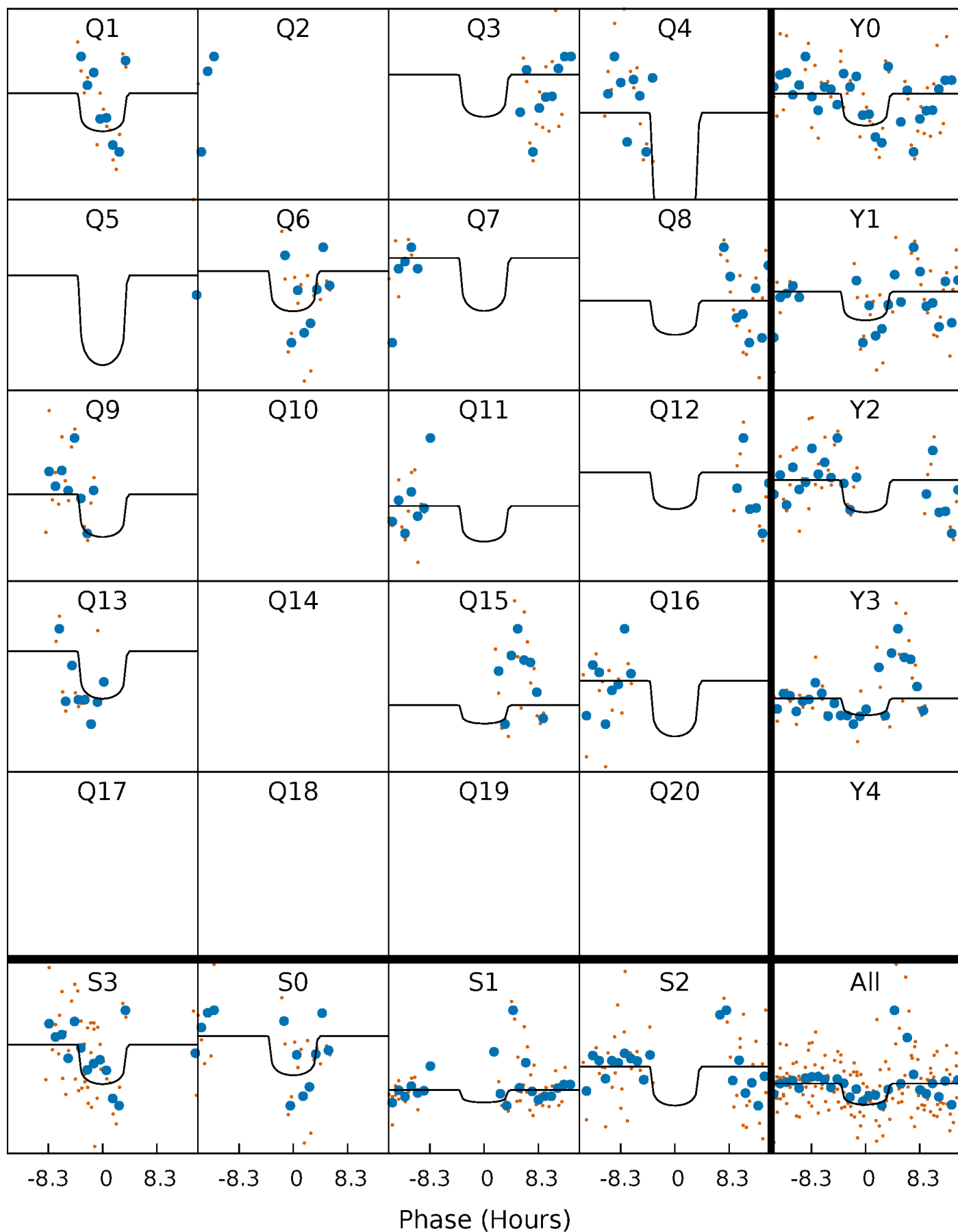
PDC Quarter-Phased Transit Curves

TCE 011349556-05 P= 85.309875 Days $T_0=147.730851$ (BKJD)



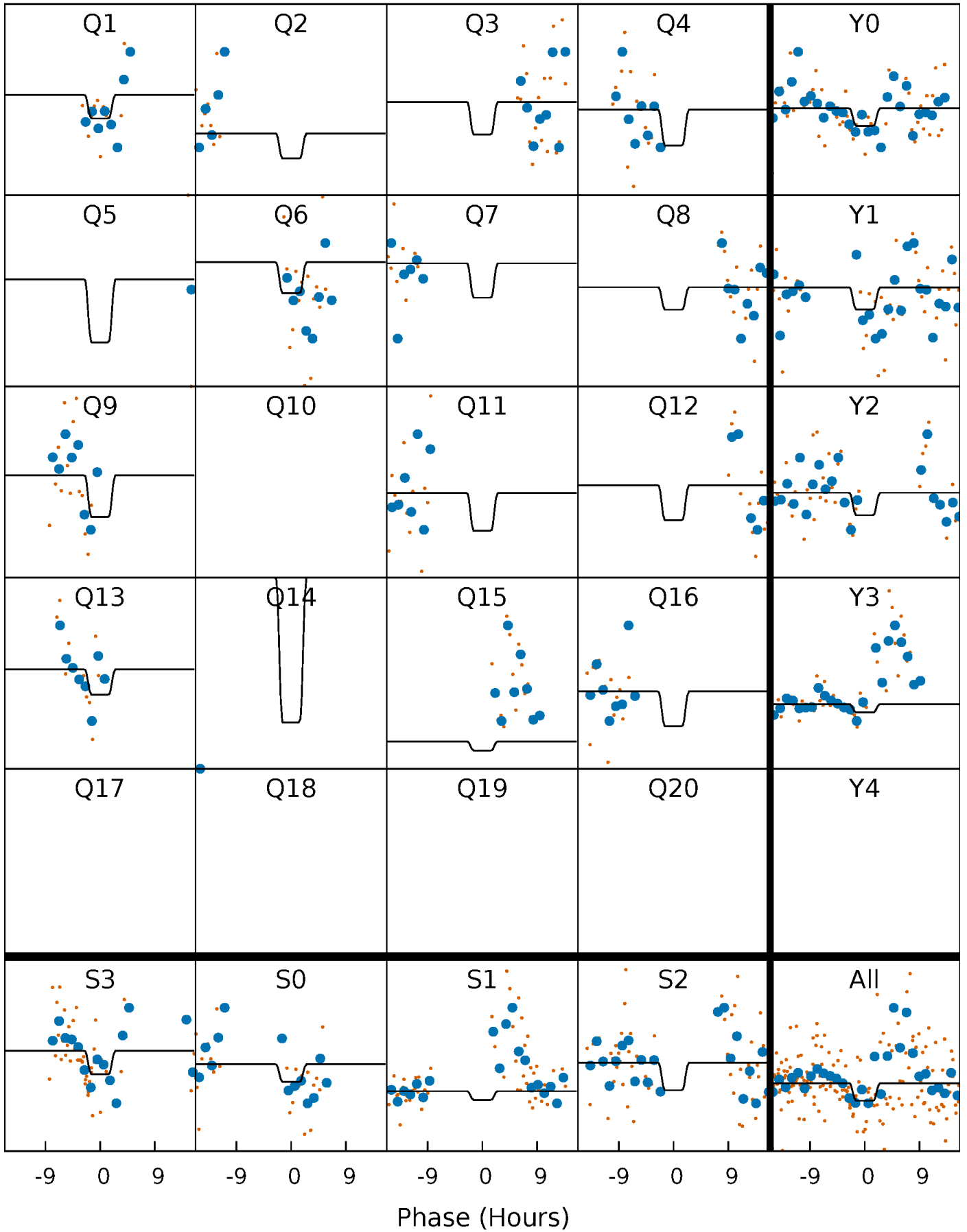
DV Quarter-Phased Transit Curves

TCE 011349556-05 P= 85.309875 Days $T_0=147.730851$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

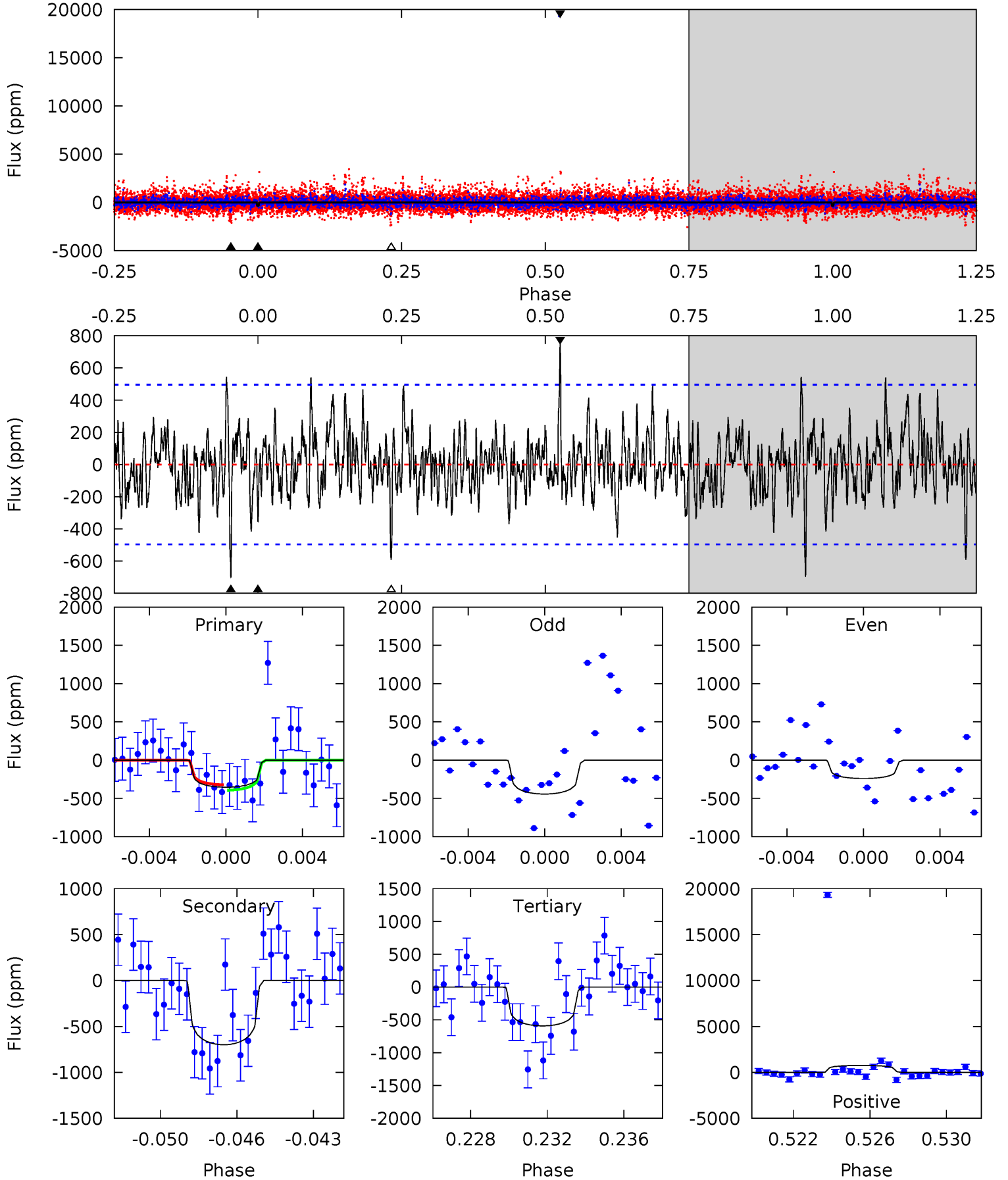
TCE 011349556-05 P= 85.312810 Days $T_0=147.693588$ (BKJD)



DV Model-Shift Uniqueness Test

011349556-05, P = 85.309875 Days, E = 62.420976 Days

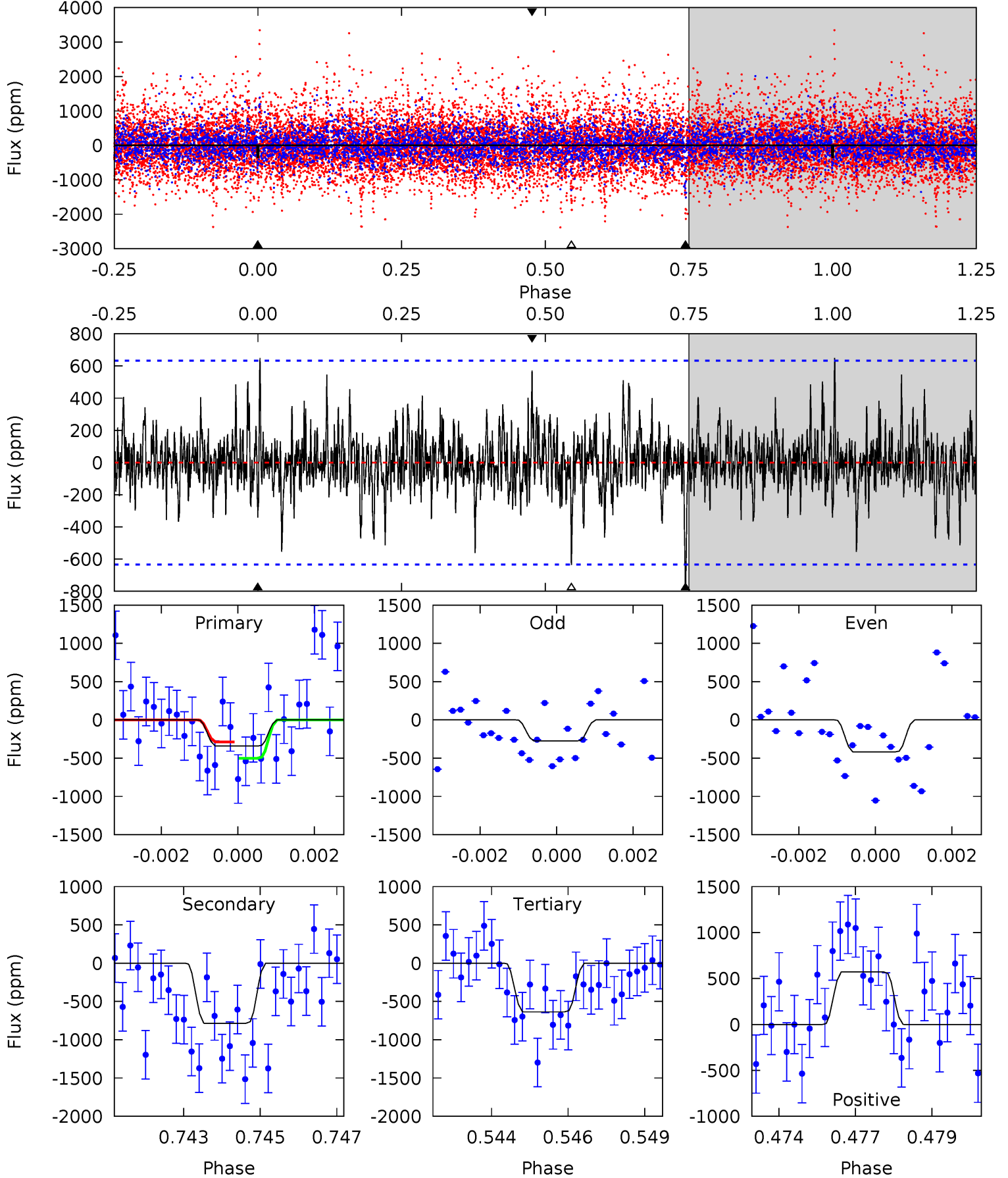
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.71	7.34	6.21	7.91	5.21	2.89	1.66	-2.50	-4.20	1.13	-0.57	0.96	0.91	0.52	0.37



Alt Model-Shift Uniqueness Test

011349556-05, P = 85.312810 Days, E = 62.380778 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.85	6.56	5.31	4.78	5.29	3.04	1.27	-2.46	-1.93	1.25	1.78	0.59	-1.66	0.45	0.87



Stellar Parameters For KIC 011349556

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3650^{+43}_{-49}	$4.919^{+0.036}_{-0.036}$	$-0.500^{+0.100}_{-0.100}$	$0.349^{+0.030}_{-0.034}$	$0.370^{+0.029}_{-0.043}$	$12.220^{+2.307}_{-1.762}$
	+1%/-1%	+1%/-1%	+20%/-20%	+9%/-10%	+8%/-12%	+19%/-14%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 011349556-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-699 ± 95	$1.22^{+0.97}_{-0.77}$	254^{+5}_{-5}	3423^{+1461}_{-536}	$18788^{+120068}_{-13017}$
Alt.	-785 ± 120	$1.13^{+1.05}_{-0.75}$	255^{+5}_{-5}	3579^{+1882}_{-650}	$24959^{+204759}_{-18322}$

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

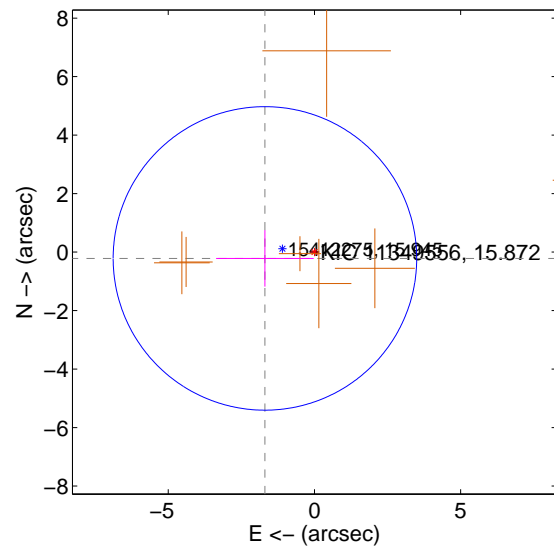
Supplemental centroid analysis for 011349556-05. Kepler magnitude: 15.87. Transit SNR 5.31

There are 0 quarters with good PRF difference image offsets

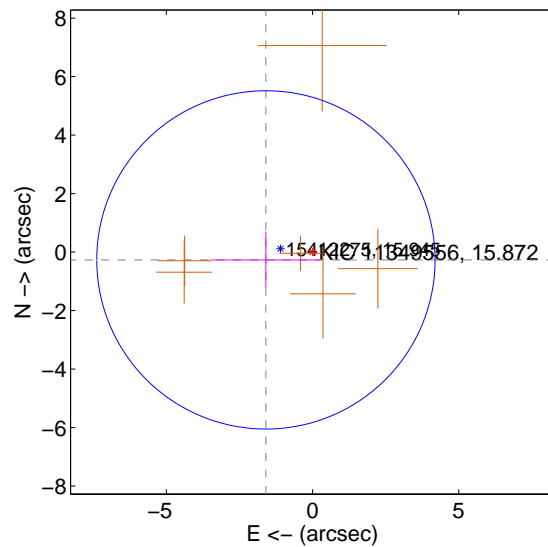
The direct PRF centroid is offset from the target star catalog position by about 0.41 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.707 ± 1.730	0.99	1.693 ± 1.667	-0.216 ± 0.966
PRF-fit source offset from KIC position	1.616 ± 1.928	0.84	1.594 ± 1.873	-0.267 ± 0.964
photometric centroid source offset	2.38 ± 1.28	1.85	2.36 ± 1.29	-0.28 ± 1.07

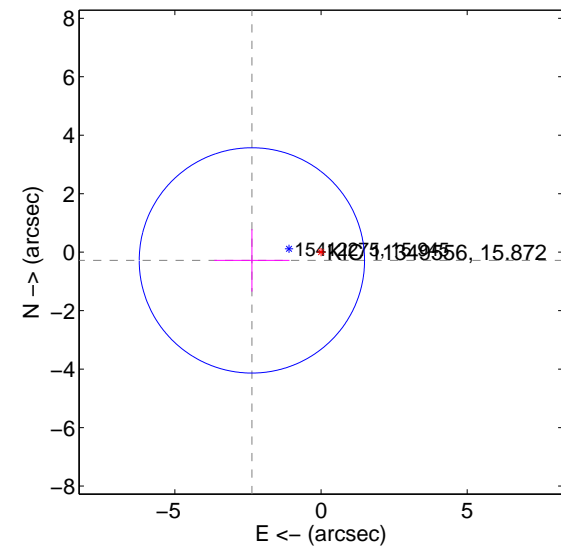
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

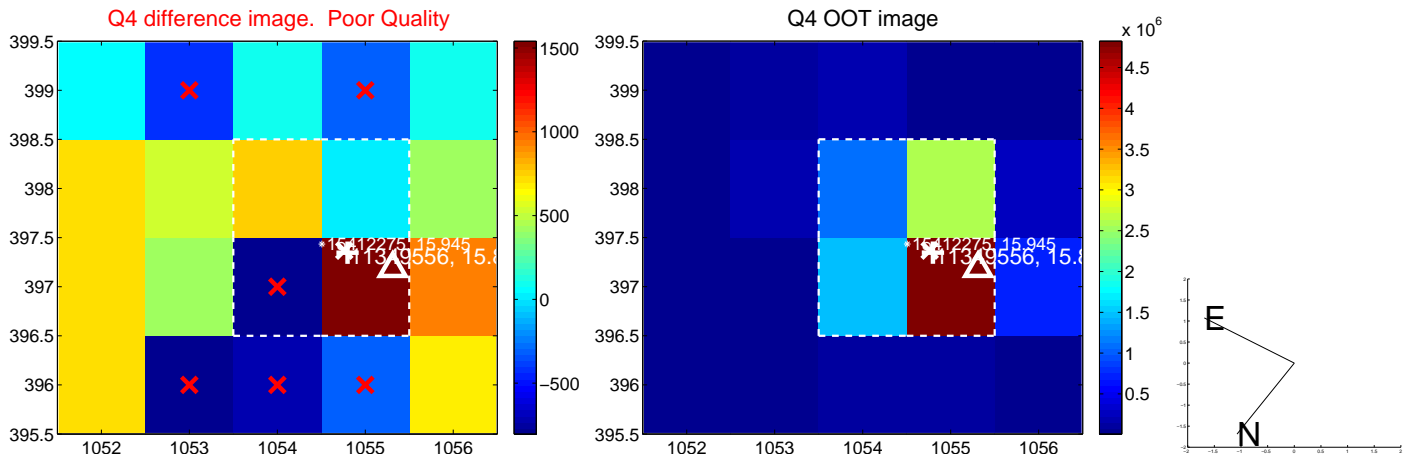
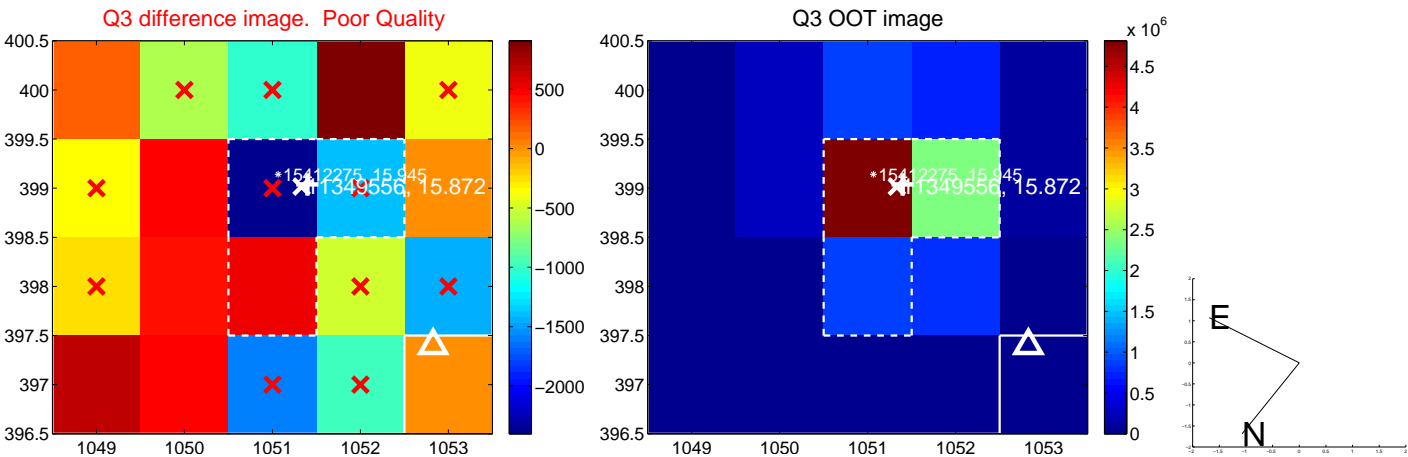
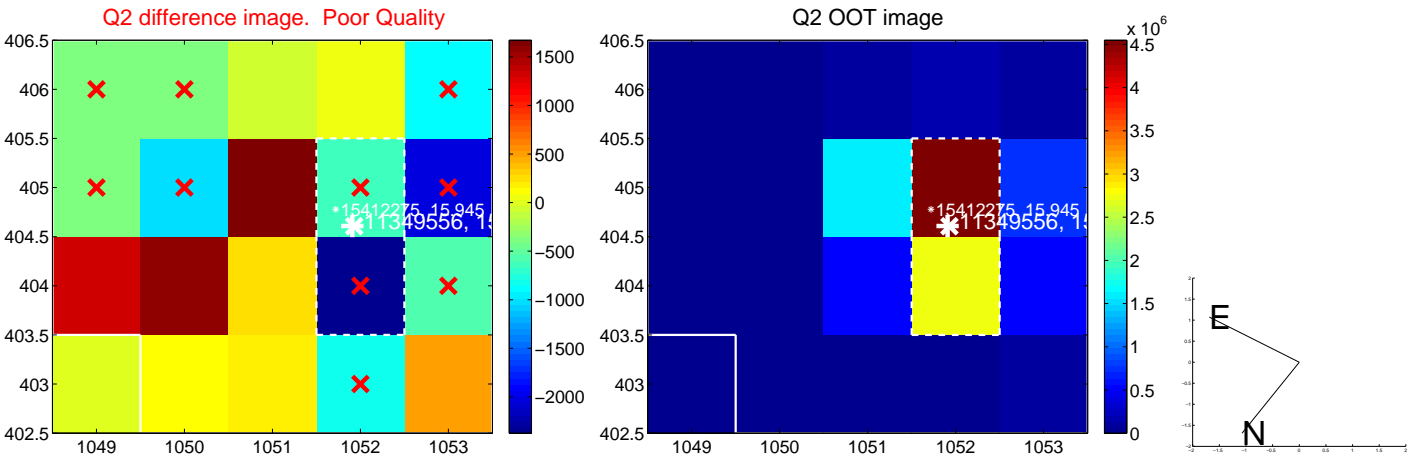
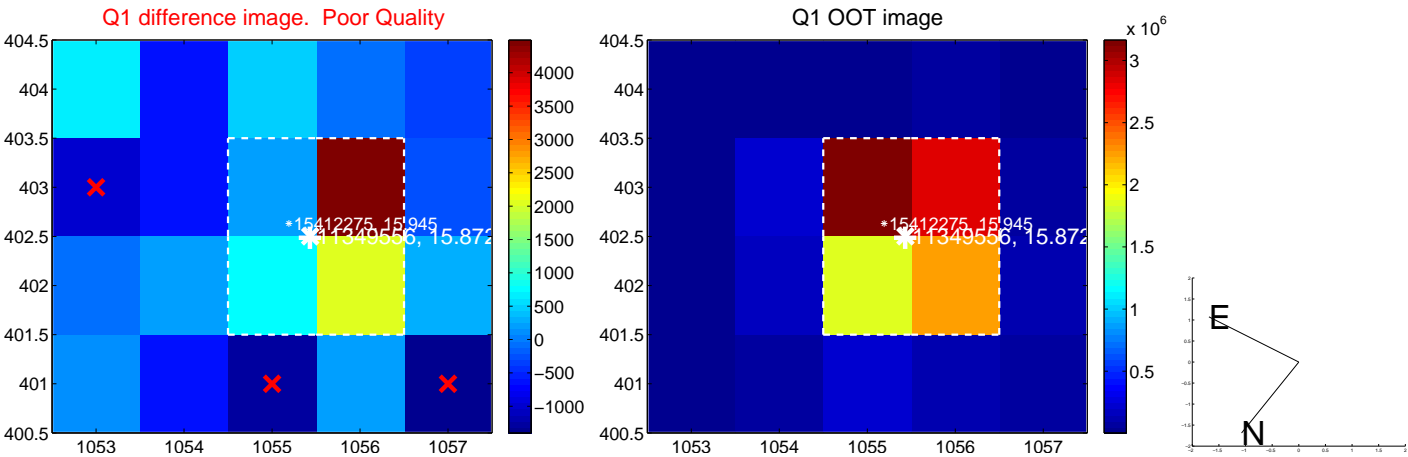


offset from photometric centroids

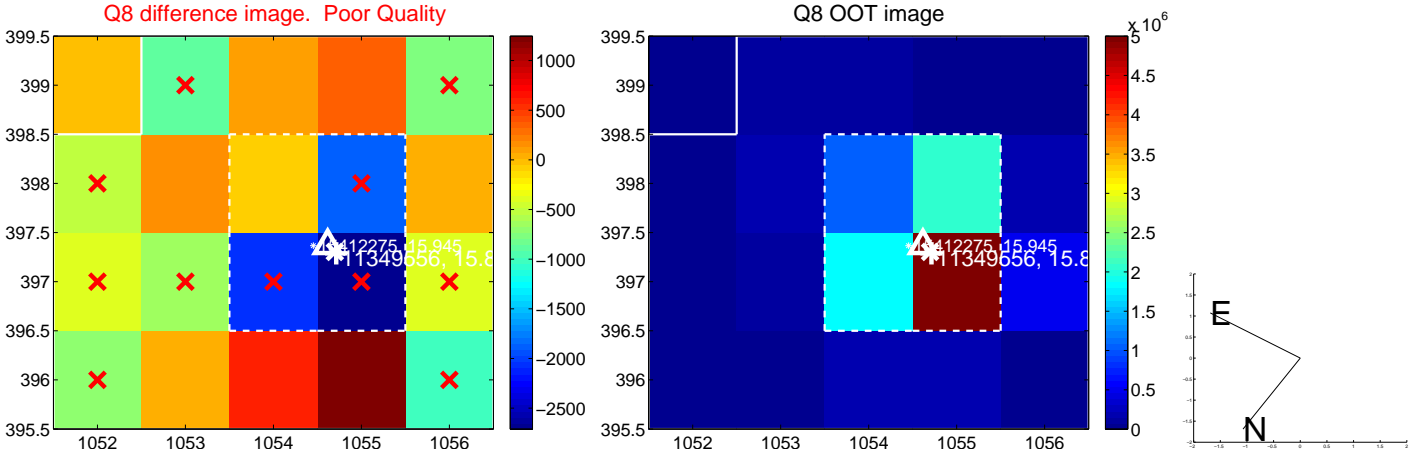
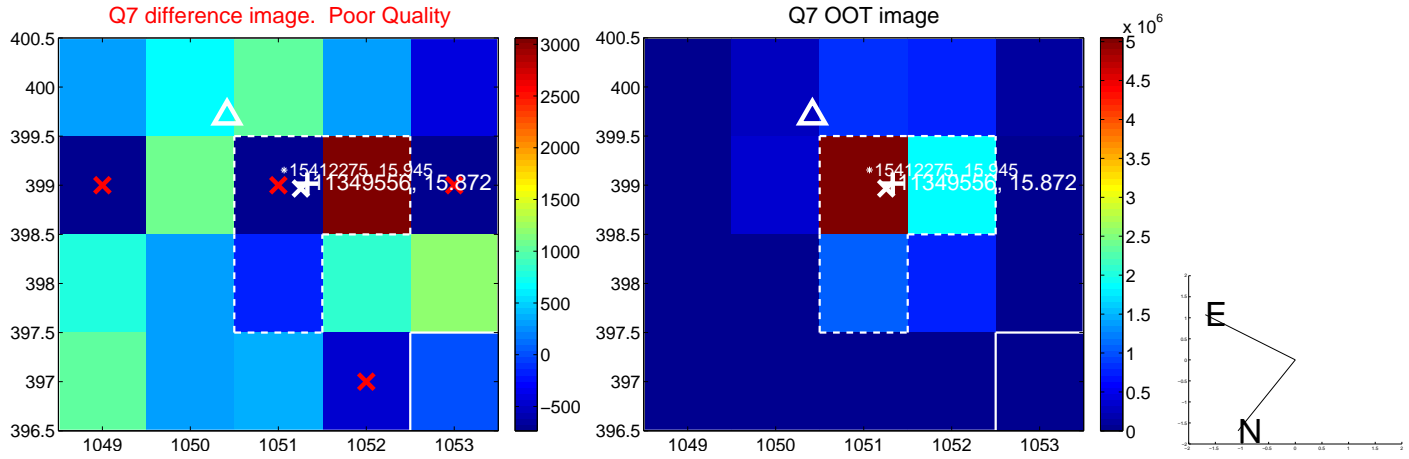
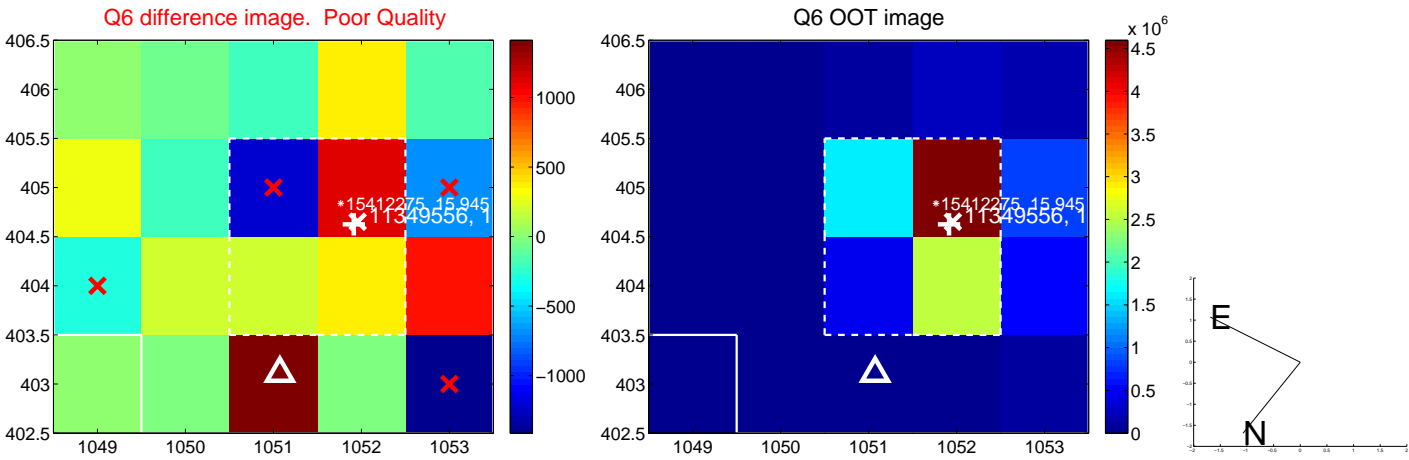
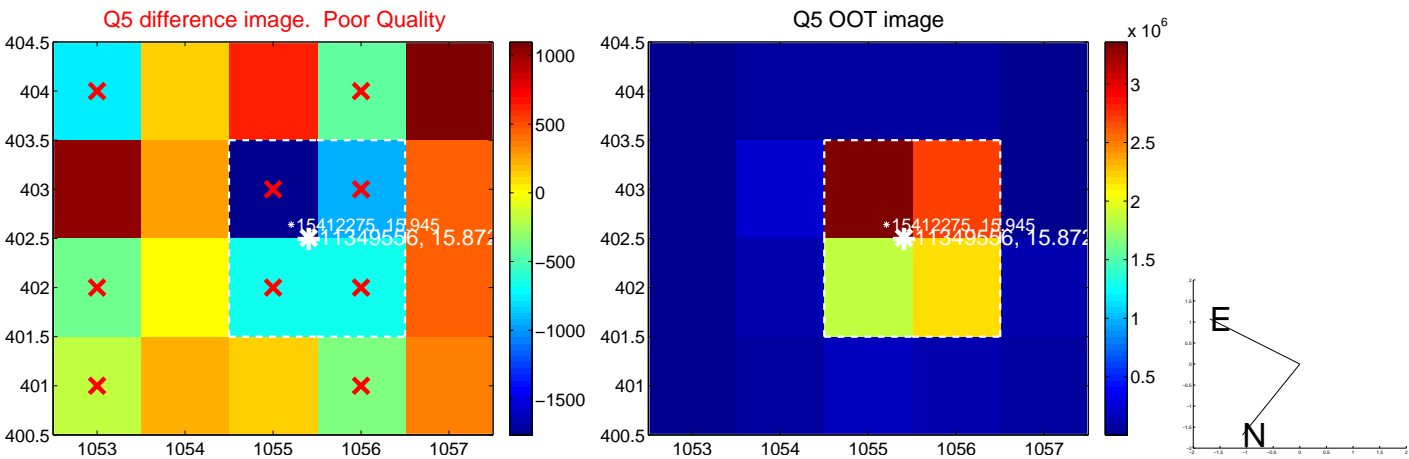


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

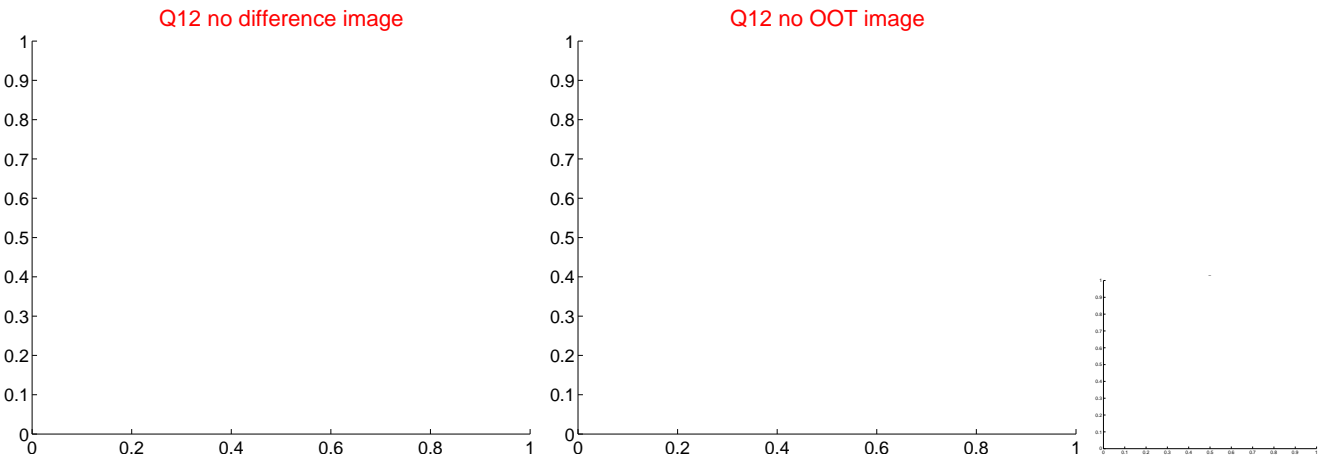
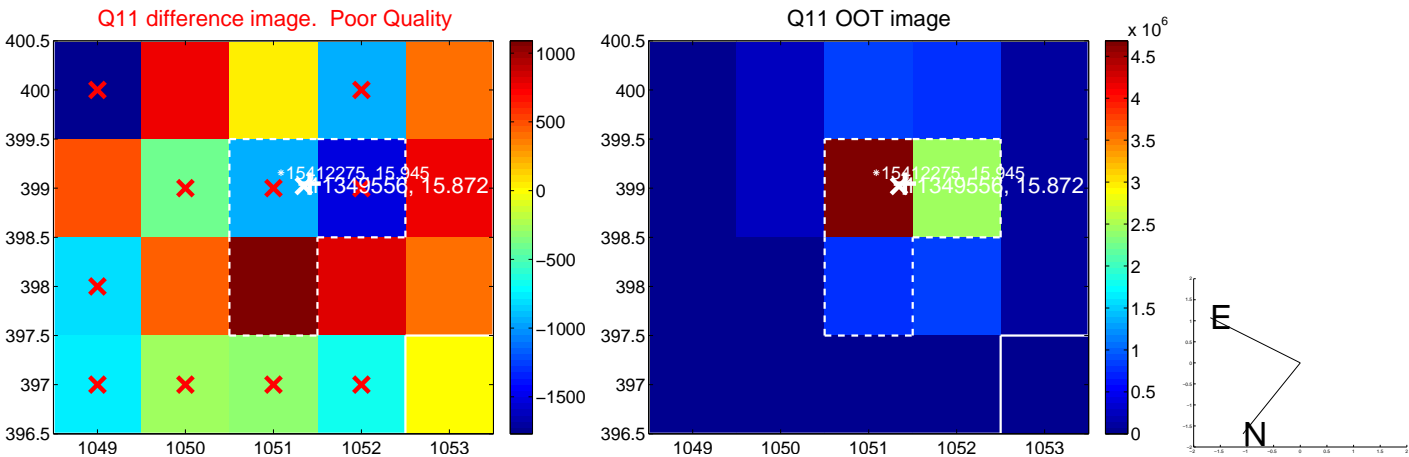
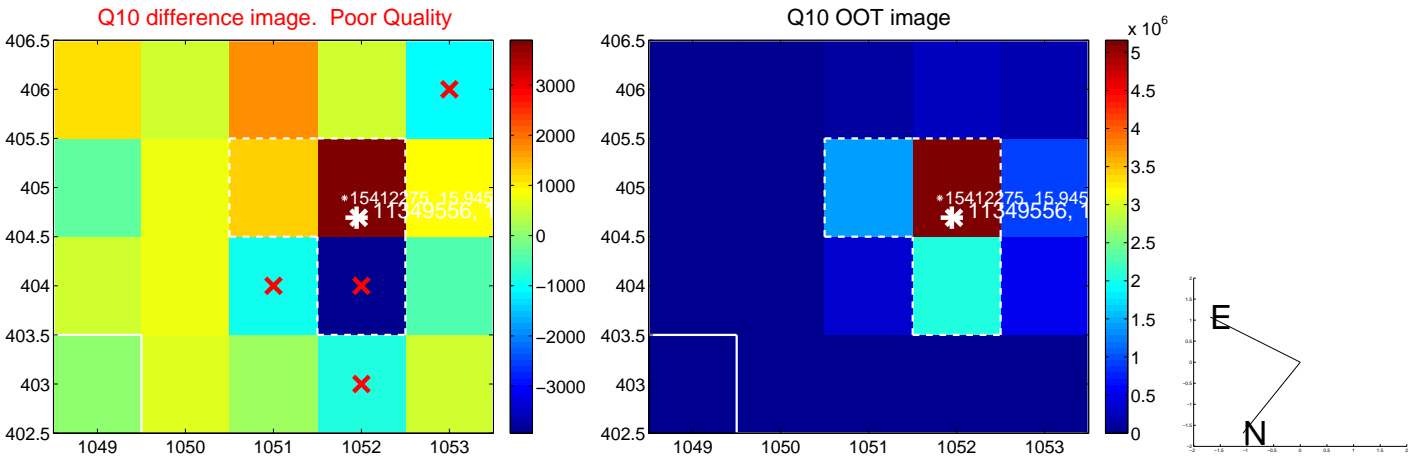
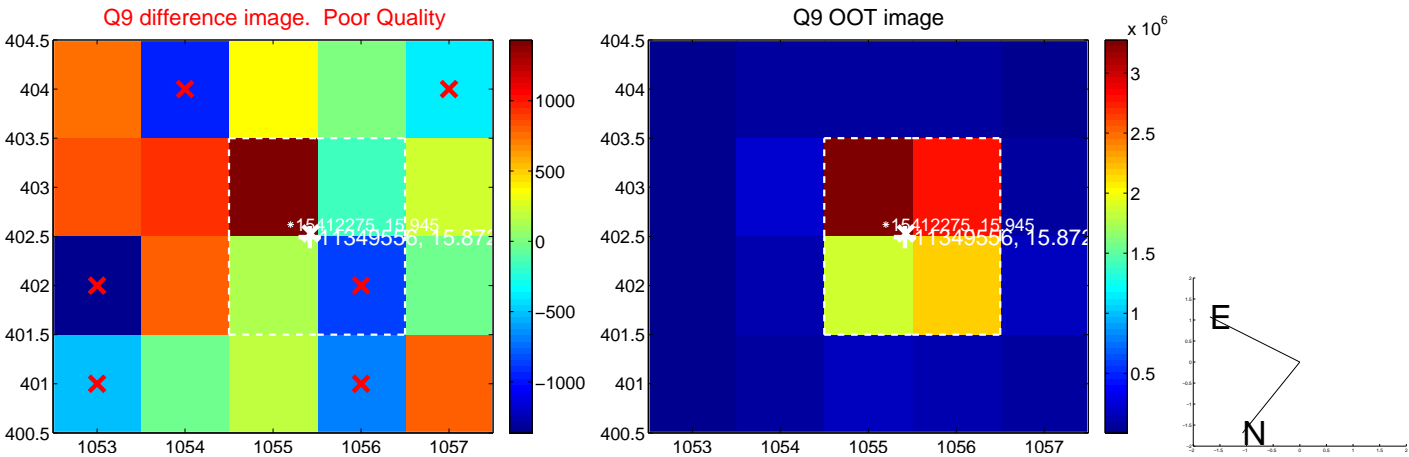
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



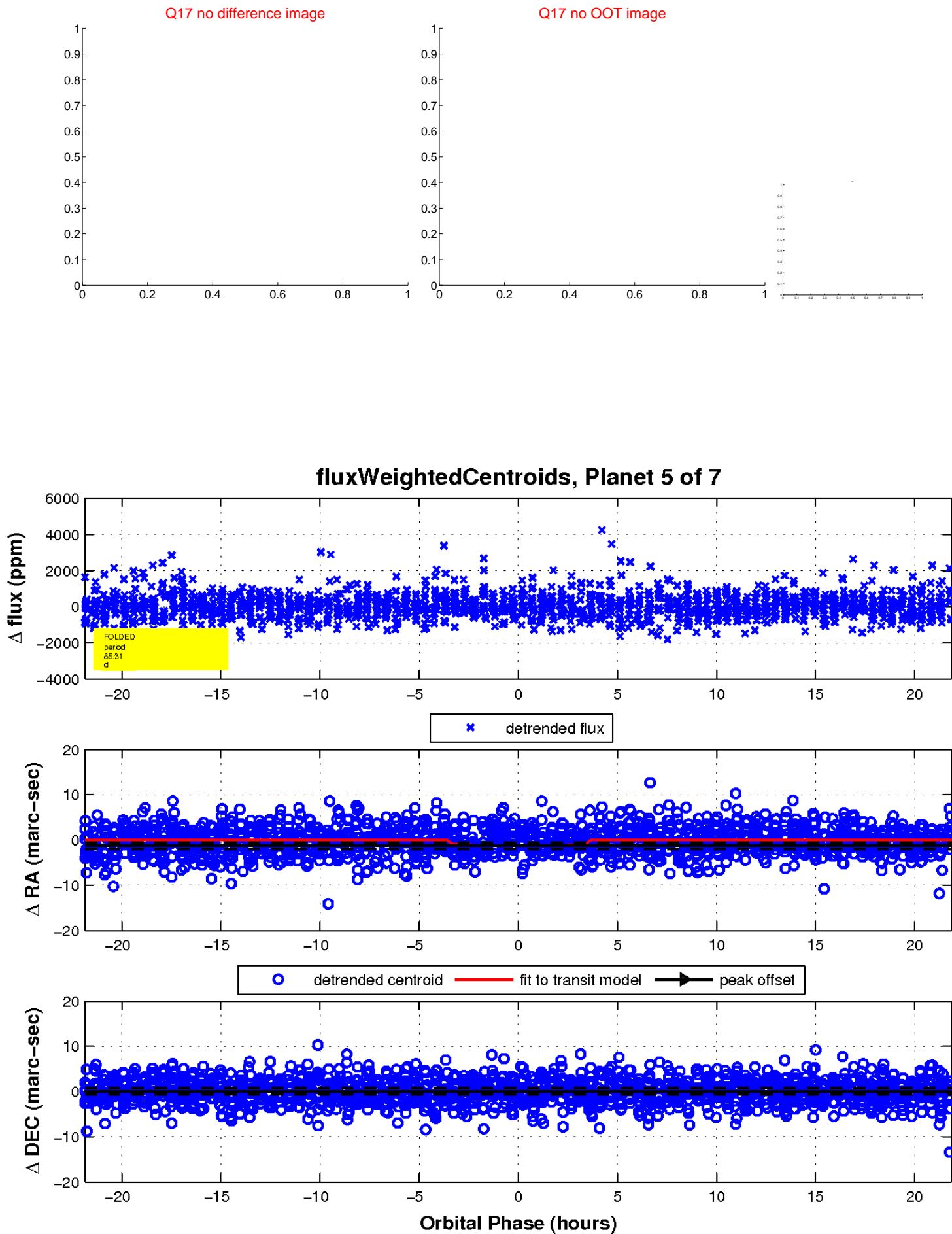
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

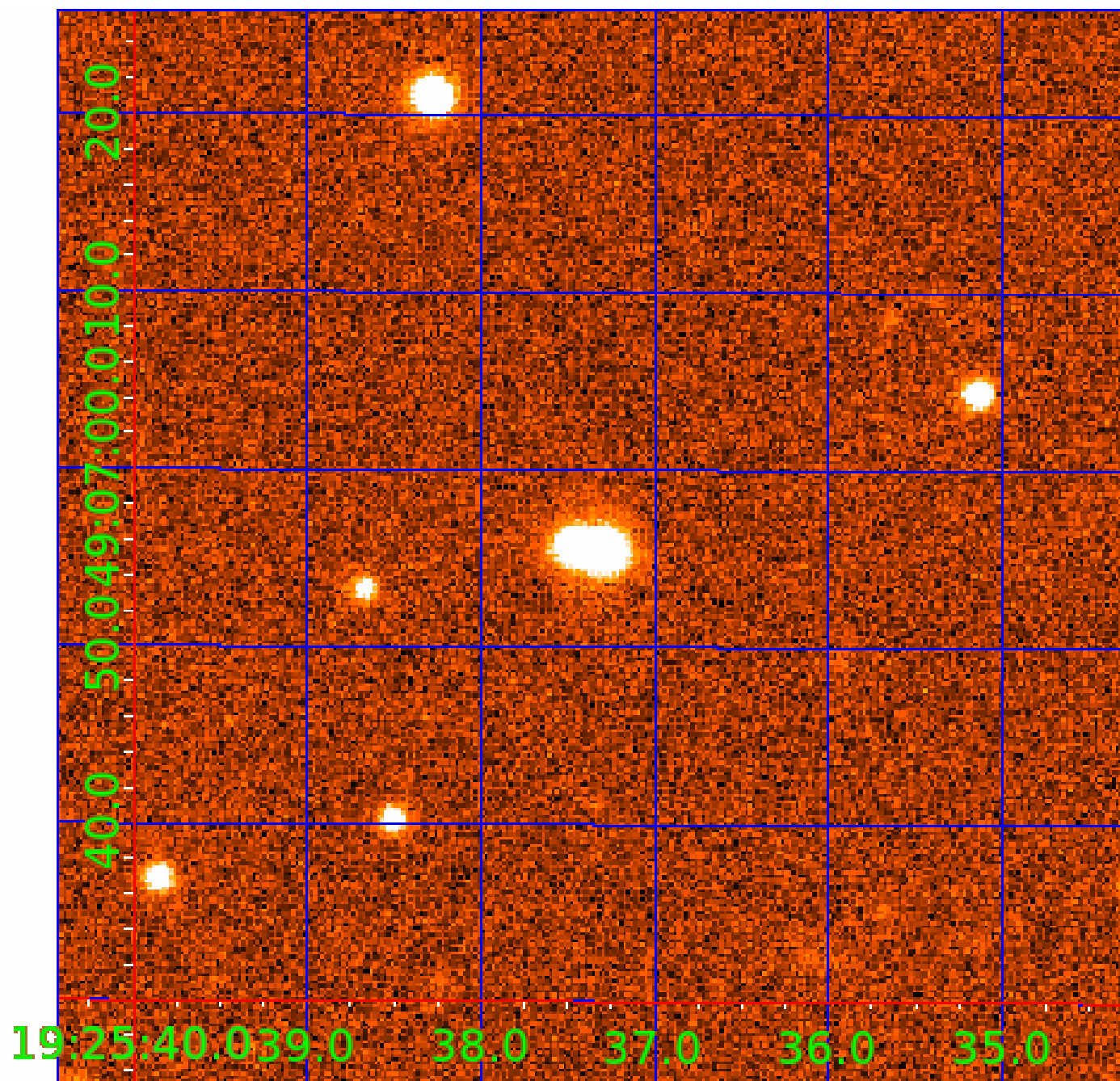


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011349556

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})
011349556-01	OBS	No	1.692946	131.654327	94.8	10.749	10.0	11.5	0.35	3650	0.36	48.73
011349556-02	OBS	No	74.847656	155.754153	1510.0	5.463	25.2	10.4	0.35	3650	1.45	0.31
011349556-04	OBS	No	50.643544	132.657026	882.4	2.569	9.1	9.0	0.35	3650	1.11	0.53
011349556-05	OBS	No	85.309875	147.730851	556.7	7.288	10.1	5.3	0.35	3650	0.84	0.26
011349556-06	OBS	No	78.807260	134.518839	759.1	2.715	8.2	6.8	0.35	3650	1.00	0.29
011349556-07	OBS	No	57.324570	152.538208	334.2	9.091	8.4	4.0	0.35	3650	0.67	0.45

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011349556-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
011349556-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011349556-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
011349556-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011349556-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
011349556-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT

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

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

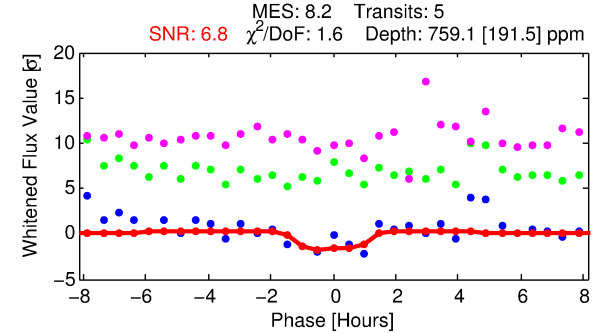
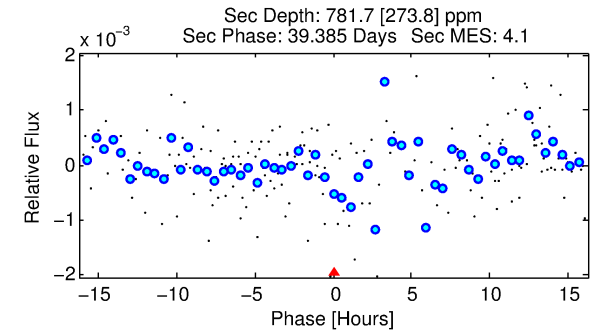
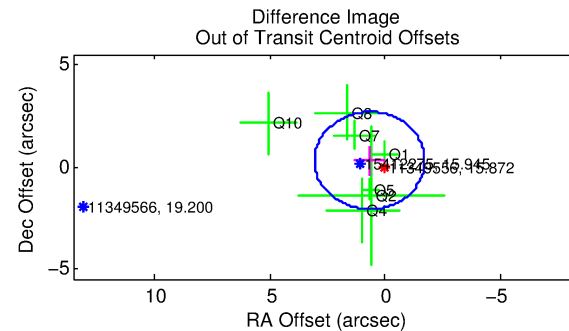
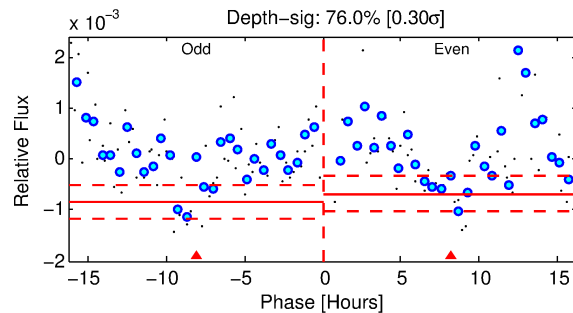
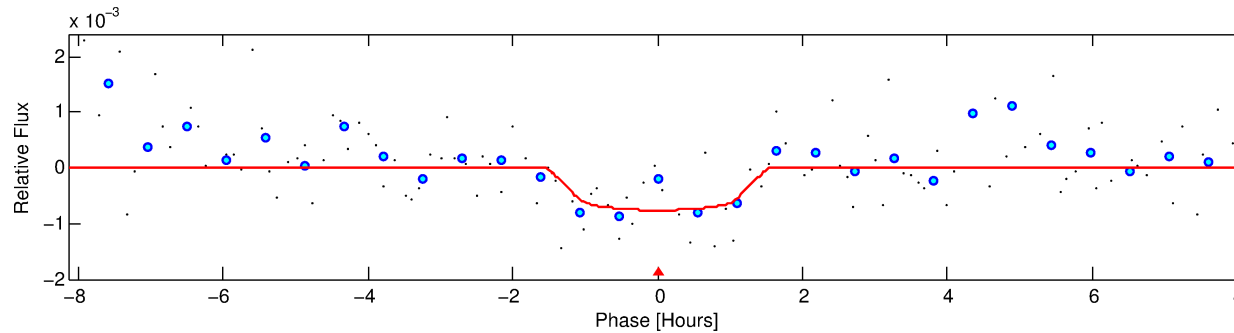
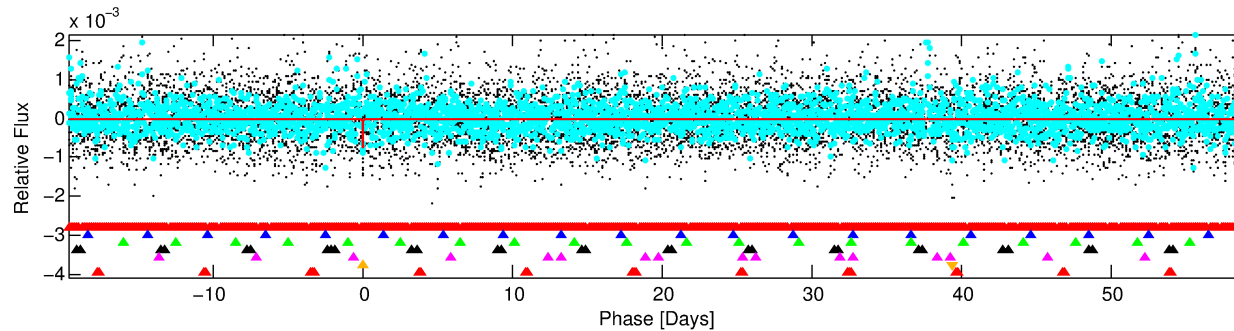
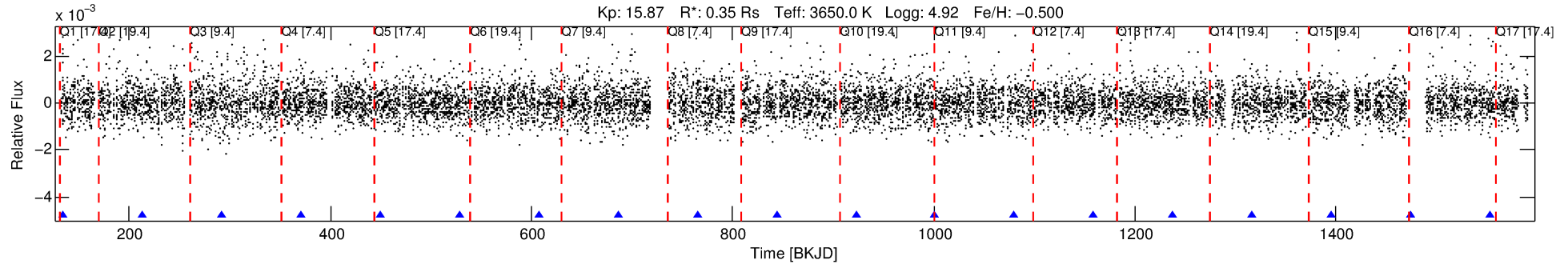
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011349556-06

No Significant Match Found

DV One-Page Summary

KIC: 11349556 Candidate: 6 of 7 Period: 78.807 d



DV Fit Results:

Period = 78.80726 [0.00144] d
Epoch = 134.5188 [0.0177] BKJD
Rp/R* = 0.0263 [0.0649]
a/R* = 186.54 [2413.68]
b = 0.59 [14.40]
Seff = 0.29 [0.03]
Teq = 187 [5] K
Rp = 1.00 [2.48] Re
a = 0.2580 [0.0182] AU
Ag = 28442.02 [140610.09] [0.20 σ]
Teffp = 3760 [4647] K [0.77 σ]

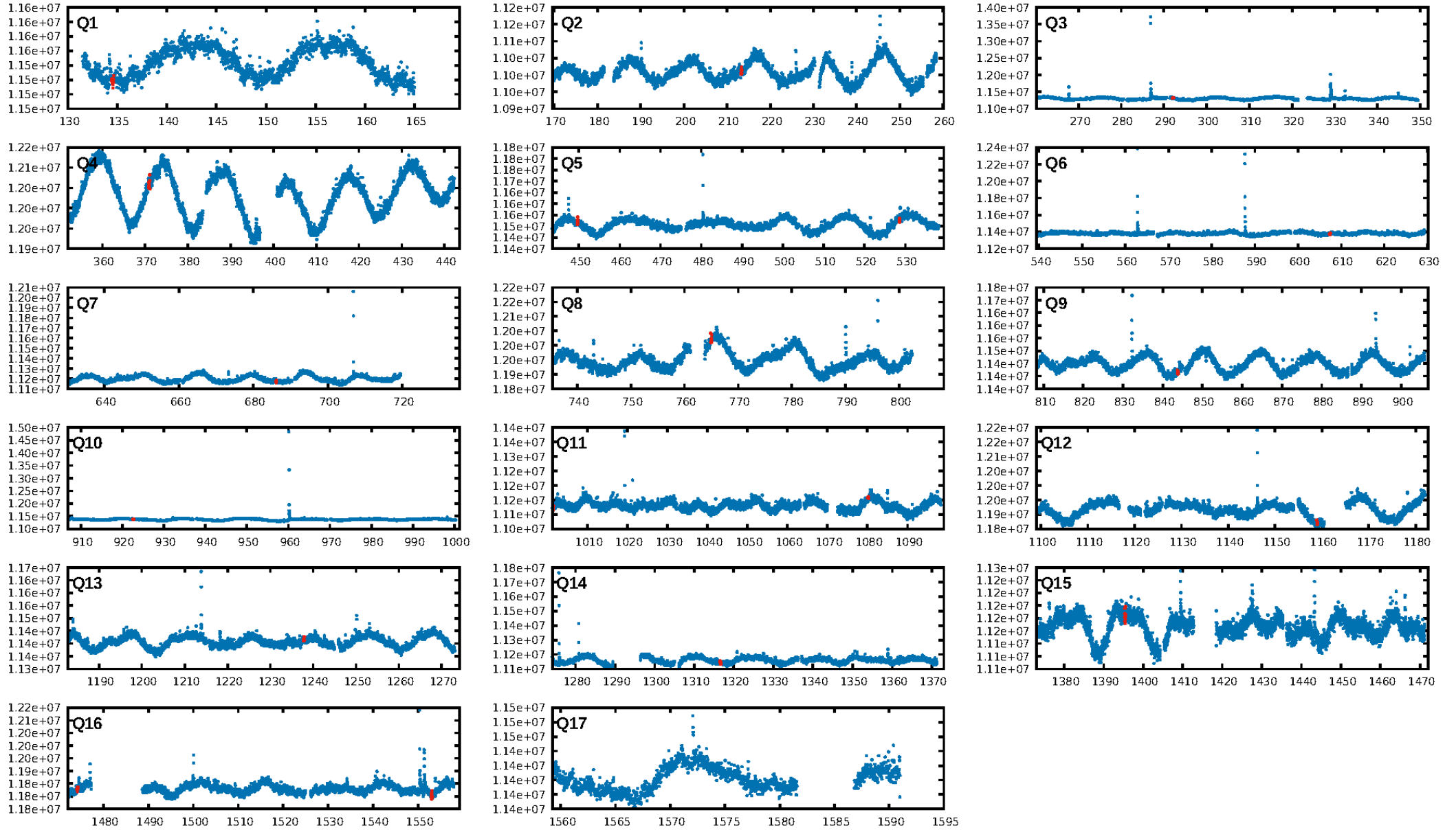
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [15.58 σ]
LongPeriod-sig: 100.0% [20.07 σ]
ModelChiSquare2-sig: 62.5%
ModelChiSquareGof-sig: 98.6%
Bootstrap-pfa: 2.27e-08
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: -1.095
Centroid-sig: 22.5%
Centroid-so: 1.820 arcsec [1.35 σ]
OotOffset-rm: 0.746 arcsec [0.94 σ]
OotOffset-st: 2/1/2/2 [7]
KicOffset-rm: 0.613 arcsec [0.86 σ]
KicOffset-st: 2/1/2/2 [7]
DiffImageQuality-fgm: 0.14 [1/7]
DiffImageOverlap-fno: 0.53 [8/15]

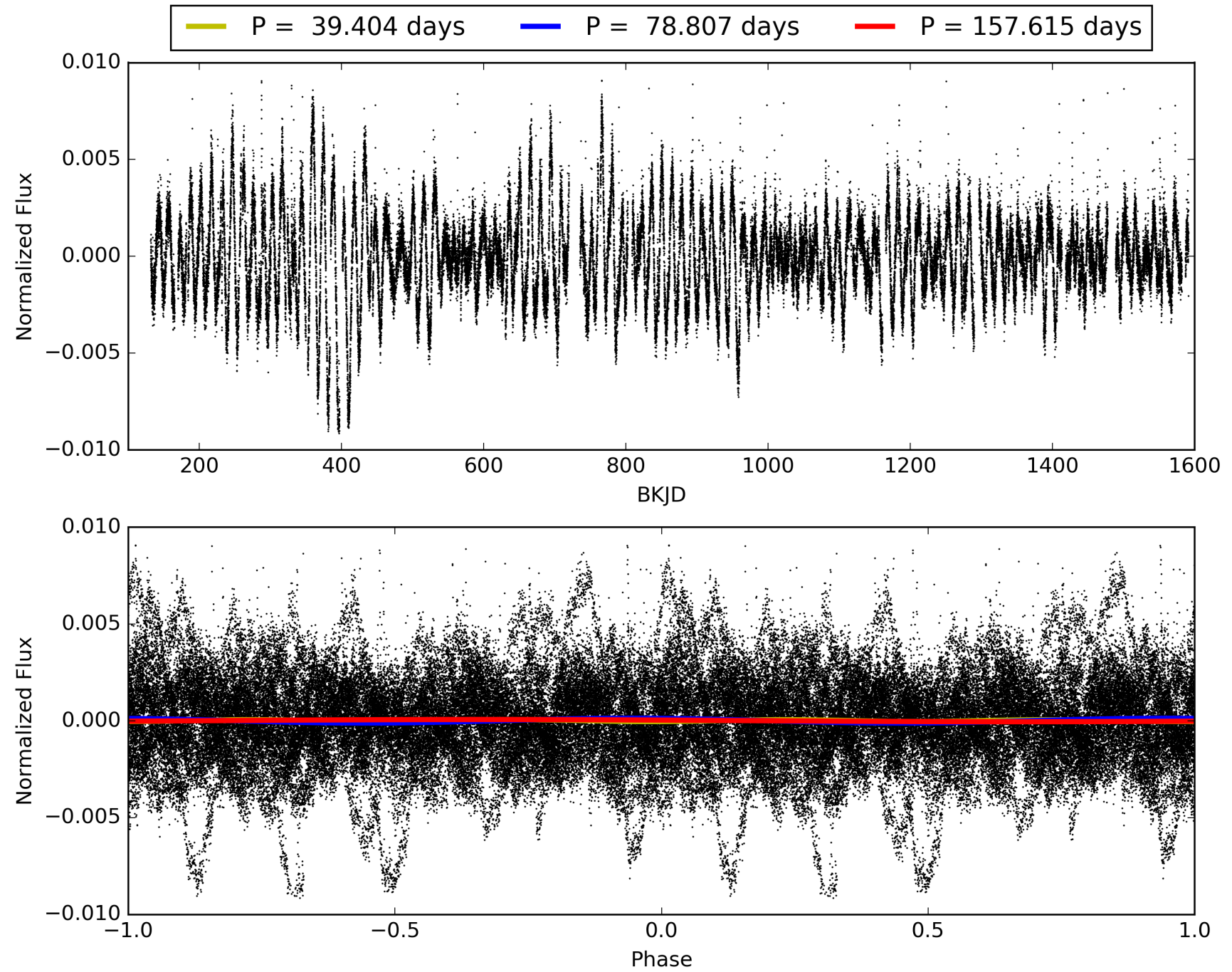
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:58:25 Z

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

TCE 011349556-06, PDC Light Curves

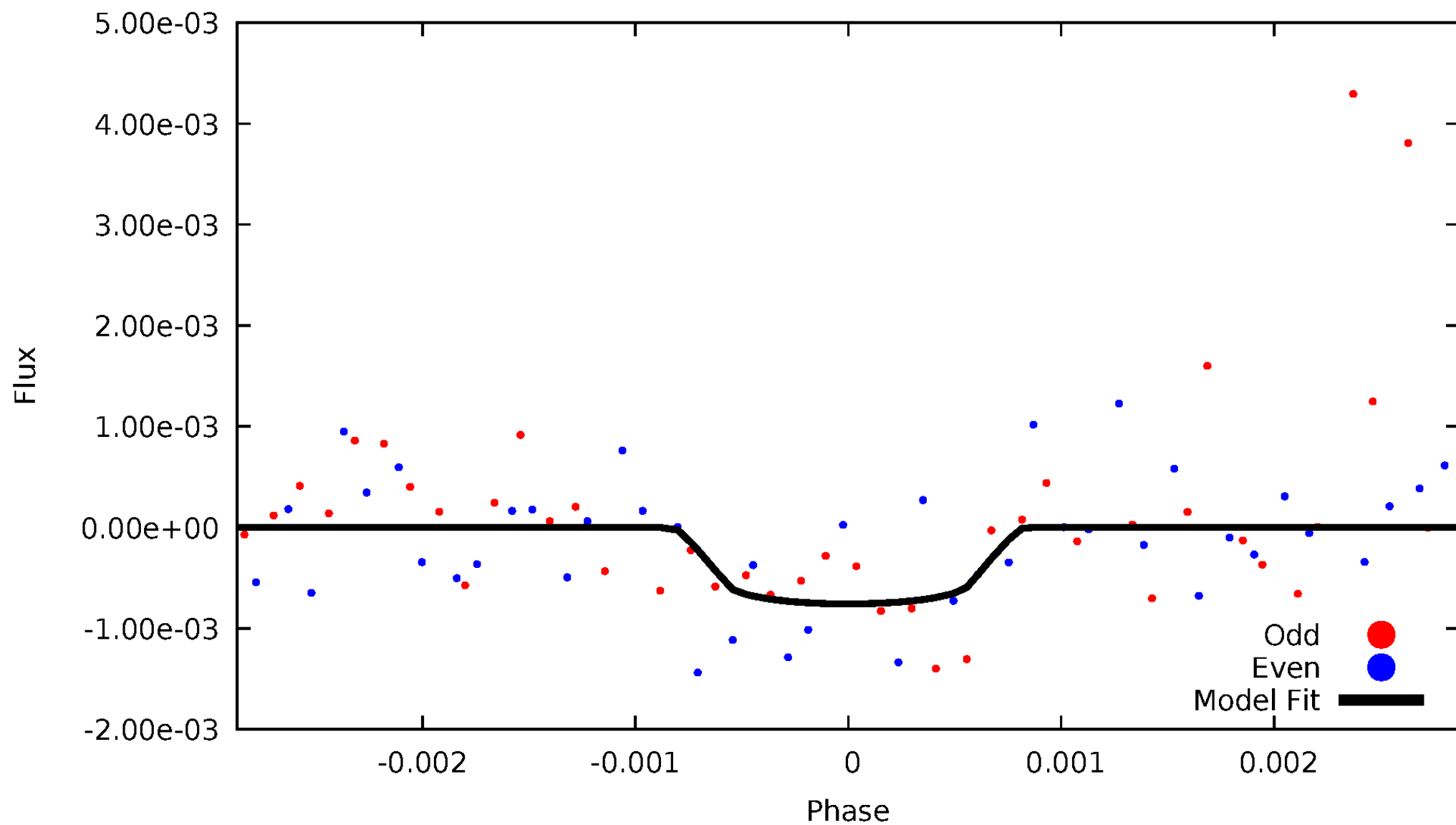


TCE 011349556-06



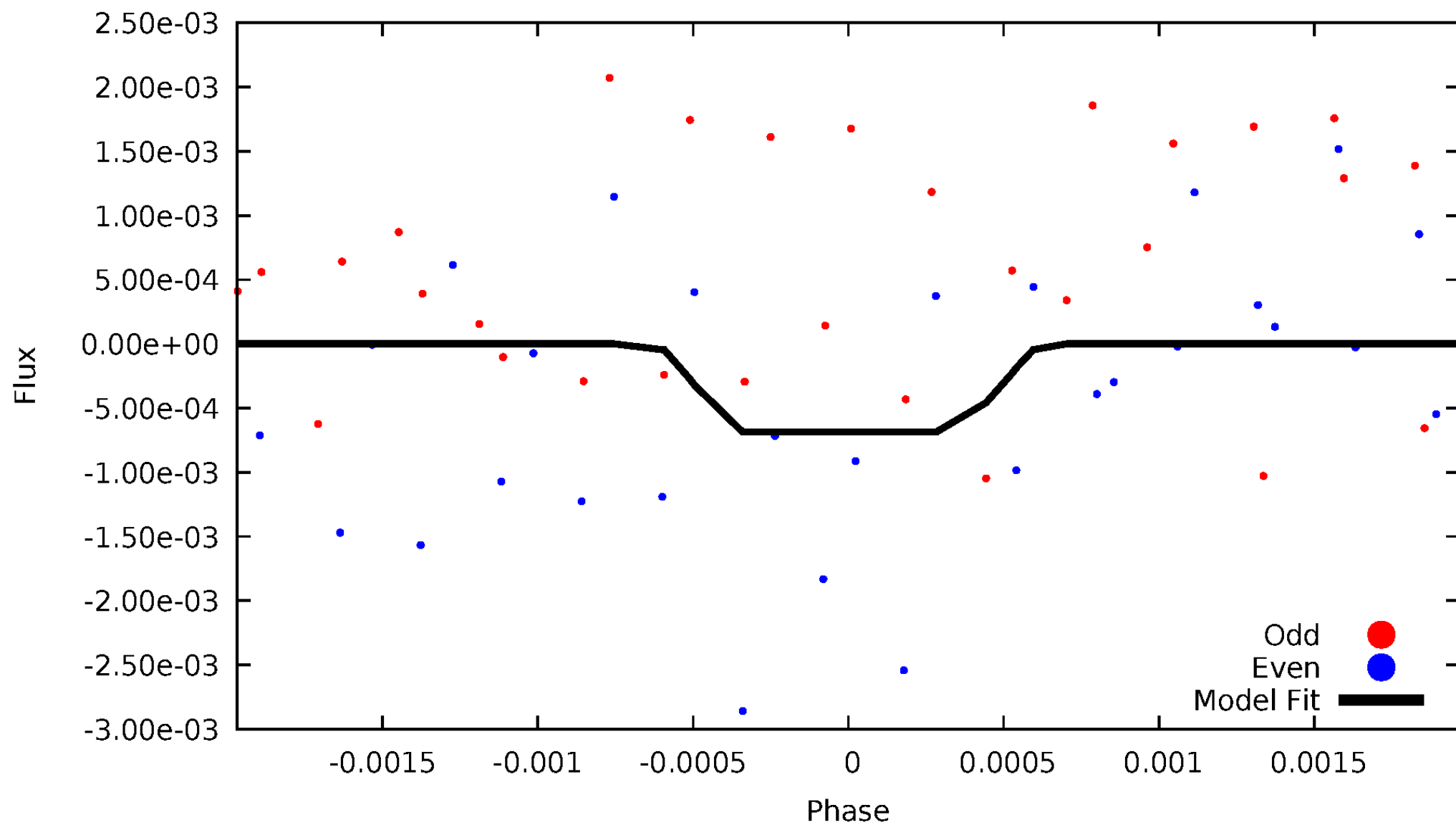
DV Odd/Even

TCE 011349556-06



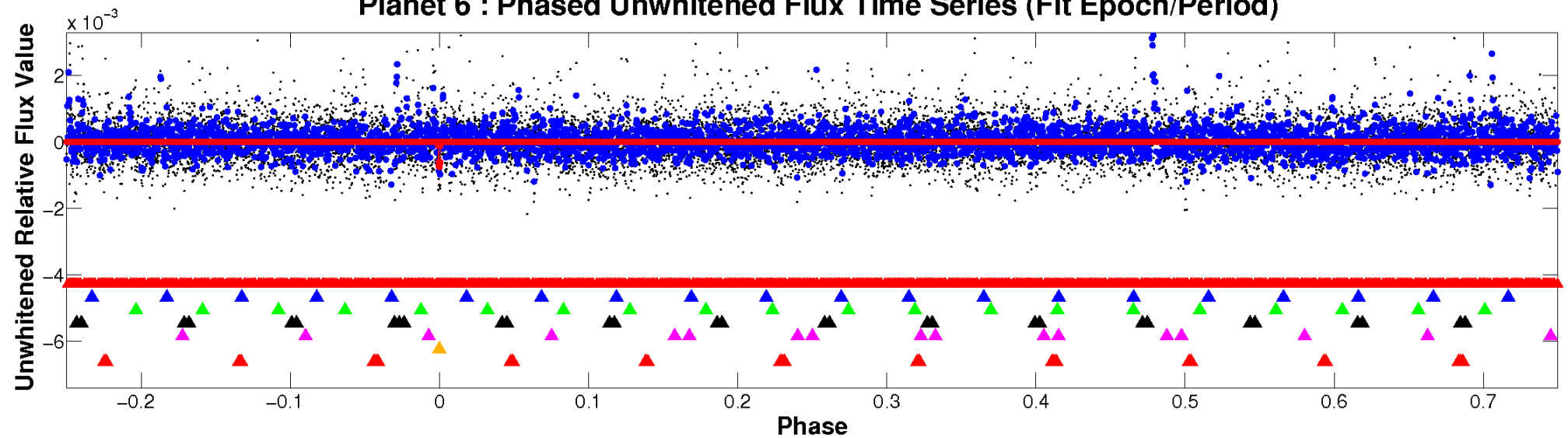
ALT Odd/Even

TCE 011349556-06

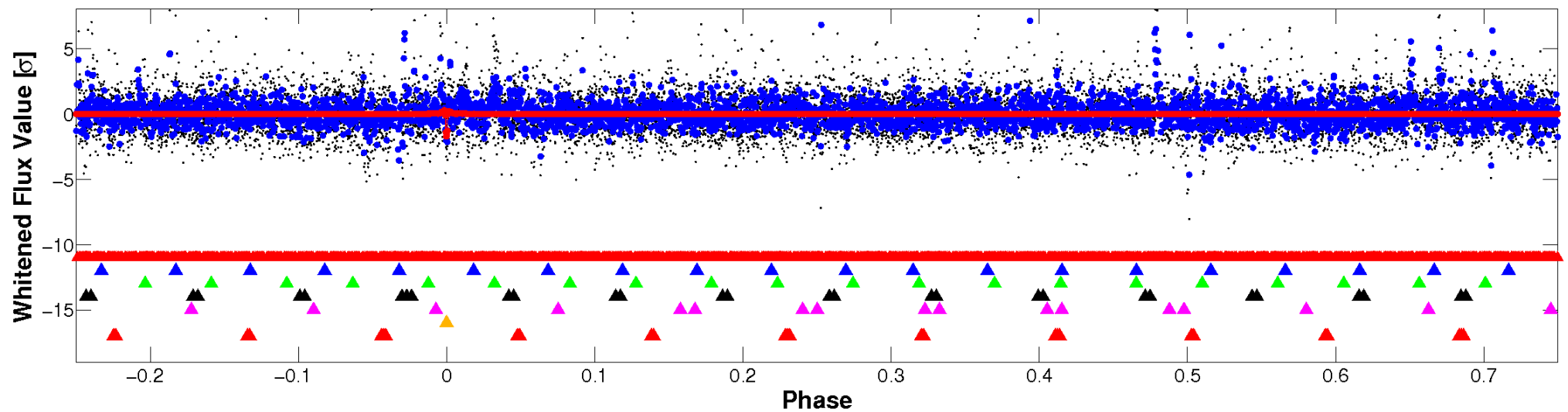


Non-Whitened Vs. Whitened Light Curve

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

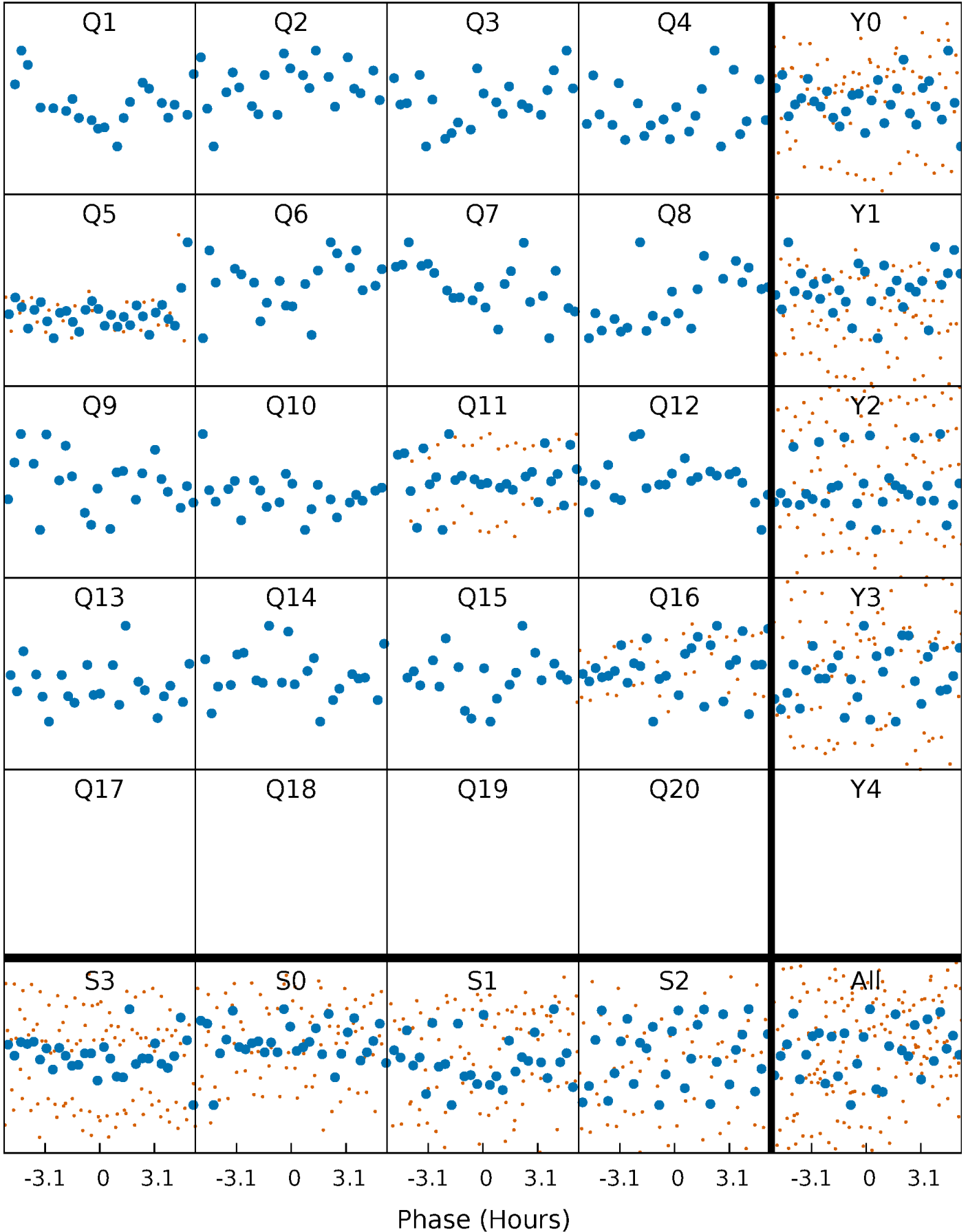


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



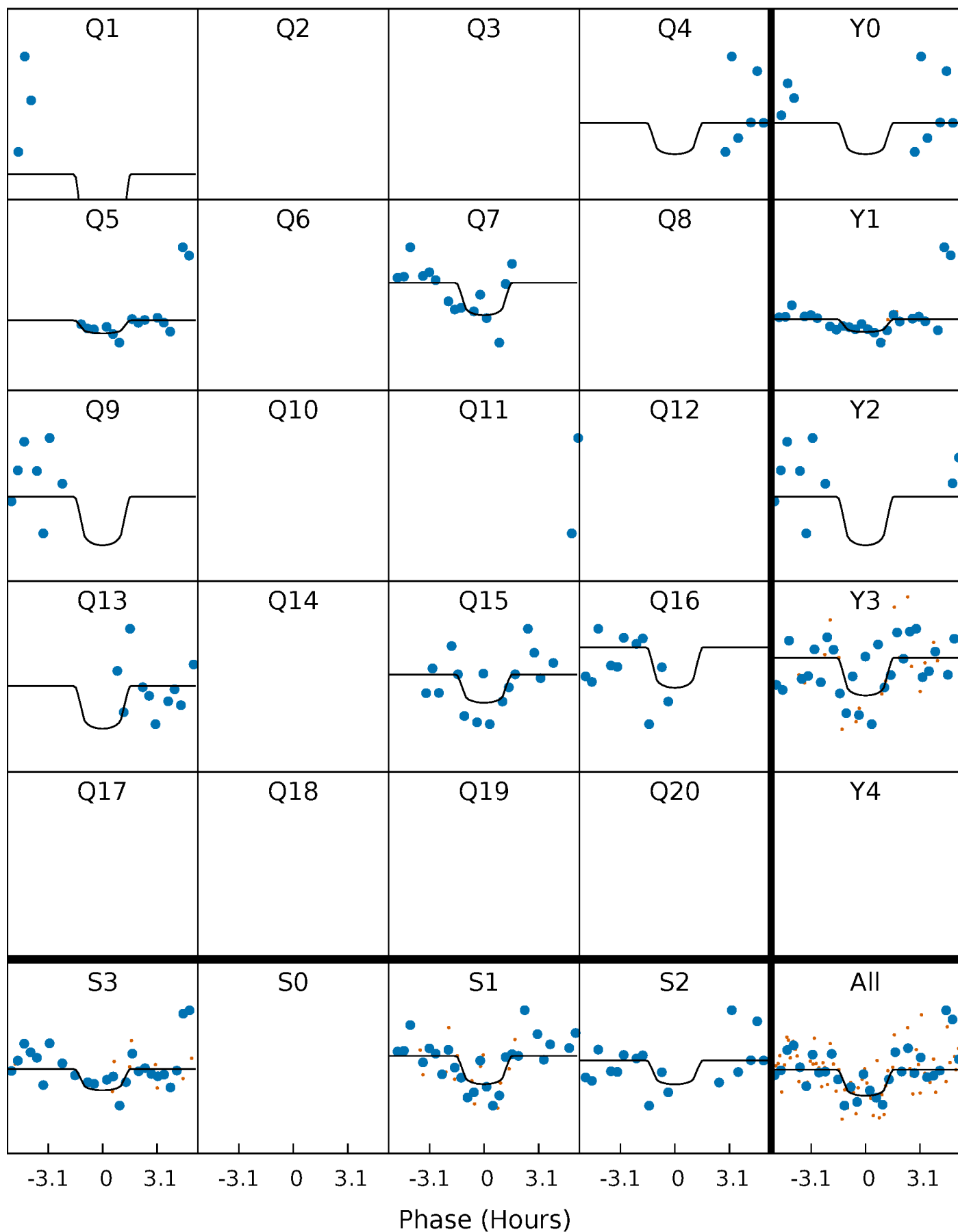
PDC Quarter-Phased Transit Curves

TCE 011349556-06 P= 78.807260 Days $T_0=134.518839$ (BKJD)



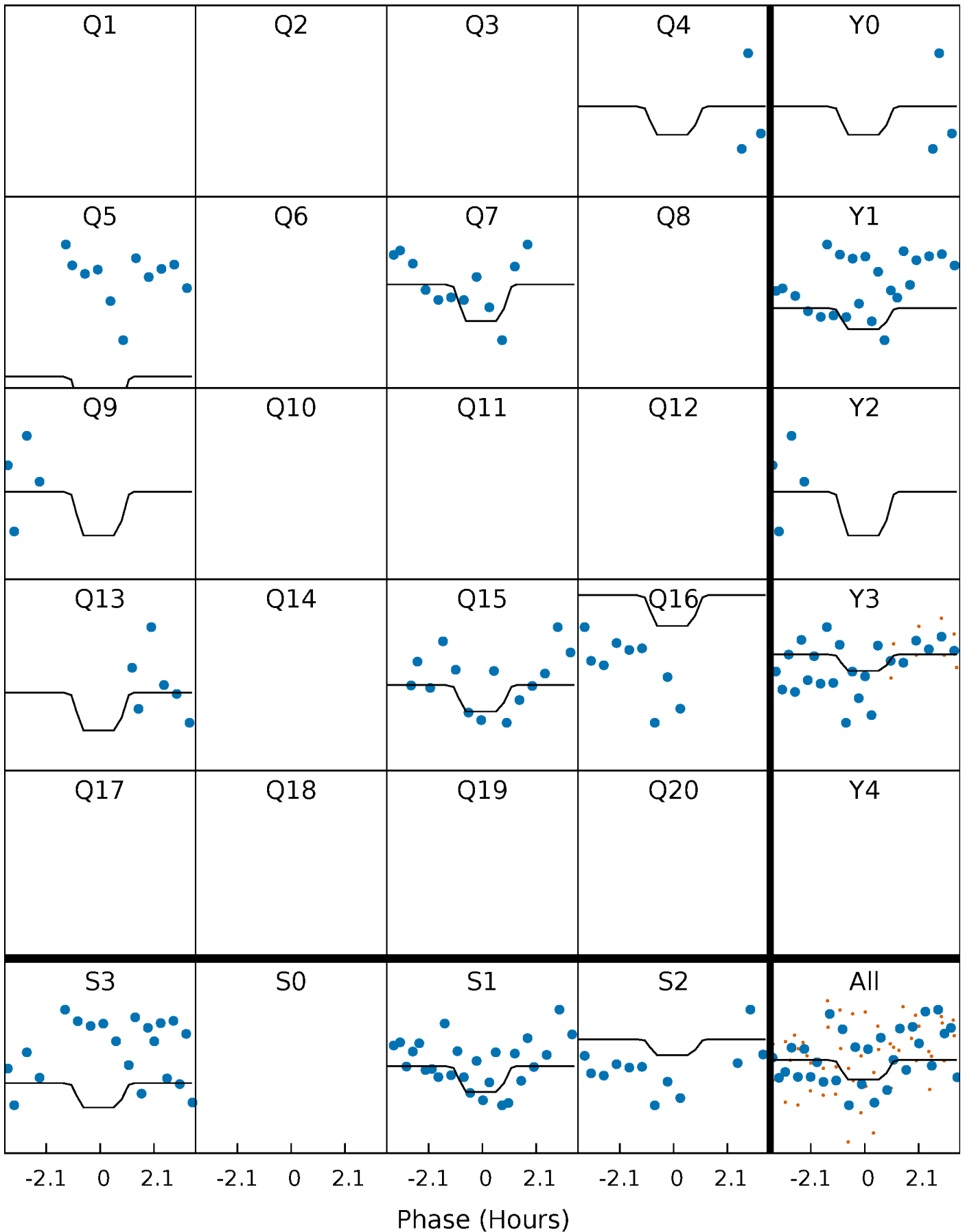
DV Quarter-Phased Transit Curves

TCE 011349556-06 P= 78.807260 Days $T_0=134.518839$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

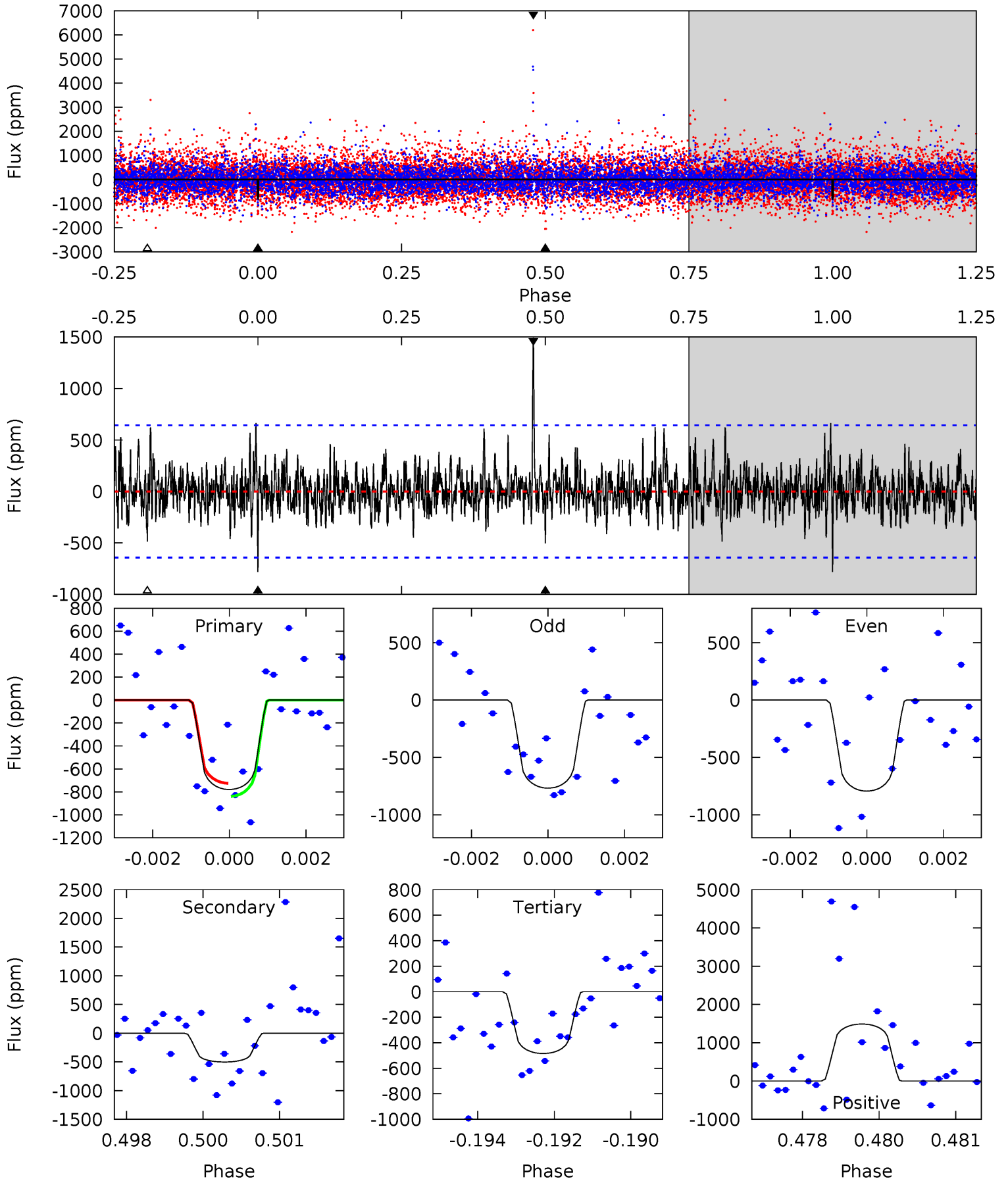
TCE 011349556-06 P= 78.804857 Days $T_0=134.533162$ (BKJD)



DV Model-Shift Uniqueness Test

011349556-06, P = 78.807260 Days, E = 55.711579 Days

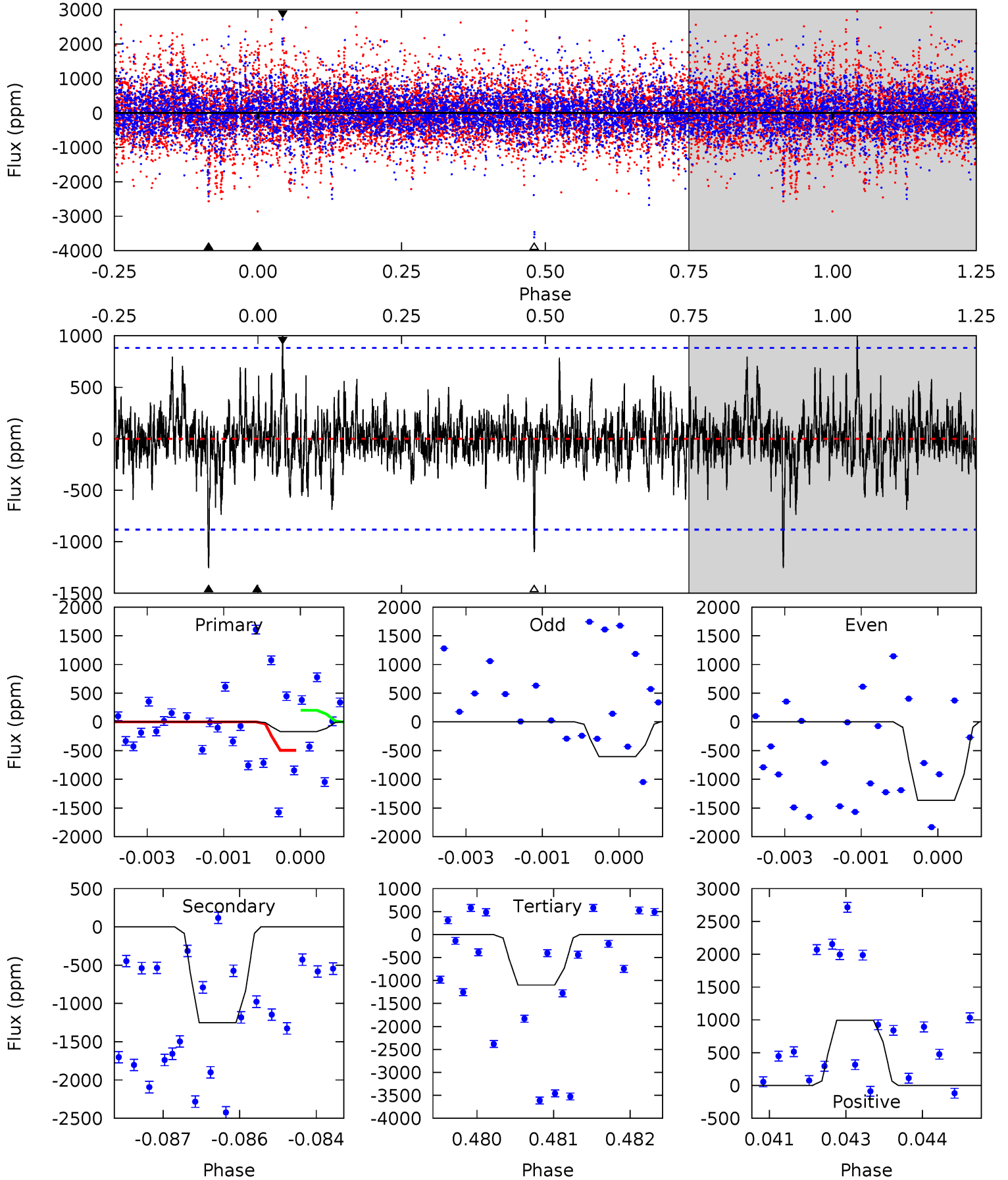
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.51	4.19	4.04	12.4	5.36	3.14	1.42	2.46	-5.93	0.15	-8.25	0.10	0.86	0.66	0.48



Alt Model-Shift Uniqueness Test

011349556-06, P = 78.804857 Days, E = 55.728305 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.03	7.67	6.73	6.09	5.40	3.22	1.26	-5.70	-5.06	0.95	1.59	2.38	1.01	0.44	0.90



Stellar Parameters For KIC 011349556

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3650^{+43}_{-49}	$4.919^{+0.036}_{-0.036}$	$-0.500^{+0.100}_{-0.100}$	$0.349^{+0.030}_{-0.034}$	$0.370^{+0.029}_{-0.043}$	$12.220^{+2.307}_{-1.762}$
	+1%/-1%	+1%/-1%	+20%/-20%	+9%/-10%	+8%/-12%	+19%/-14%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 011349556-06 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-502 ± 120	$1.99^{+2.09}_{-1.36}$	261^{+5}_{-5}	2806^{+1157}_{-454}	4299^{+39722}_{-3241}
Alt.	-1253 ± 163	$2.02^{+2.08}_{-1.41}$	262^{+5}_{-5}	3234^{+1604}_{-591}	$11685^{+112670}_{-9036}$

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 $A_{obs} \gg 1.0$

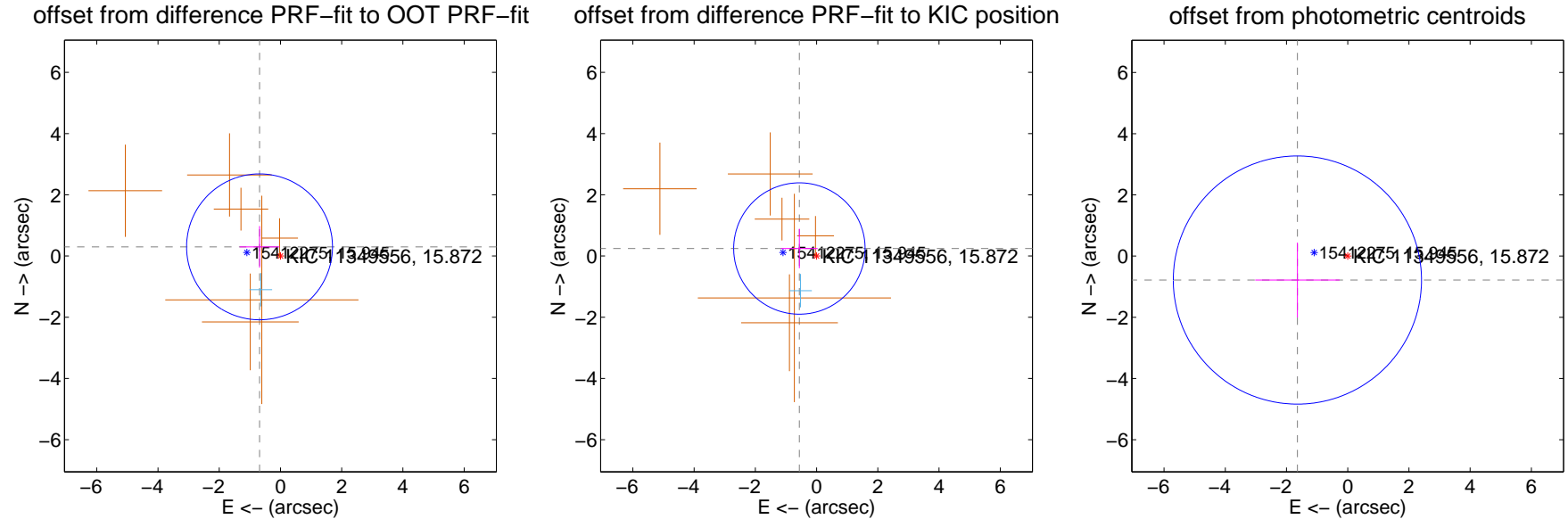
DV Centroid Data

Supplemental centroid analysis for 011349556-06. Kepler magnitude: 15.87. Transit SNR 6.78

There are 1 quarters with good PRF difference image offsets

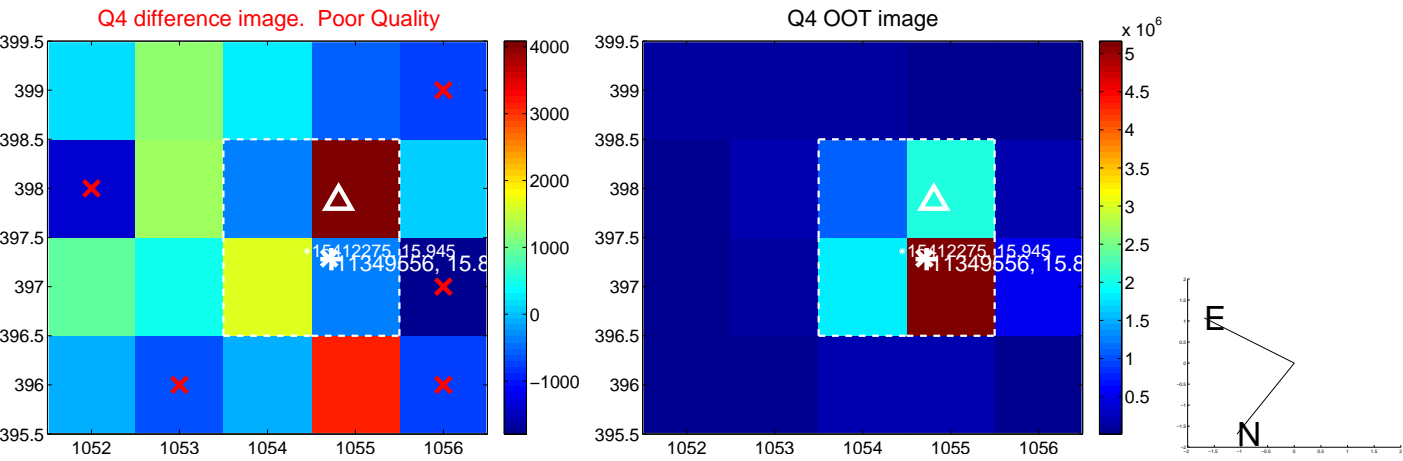
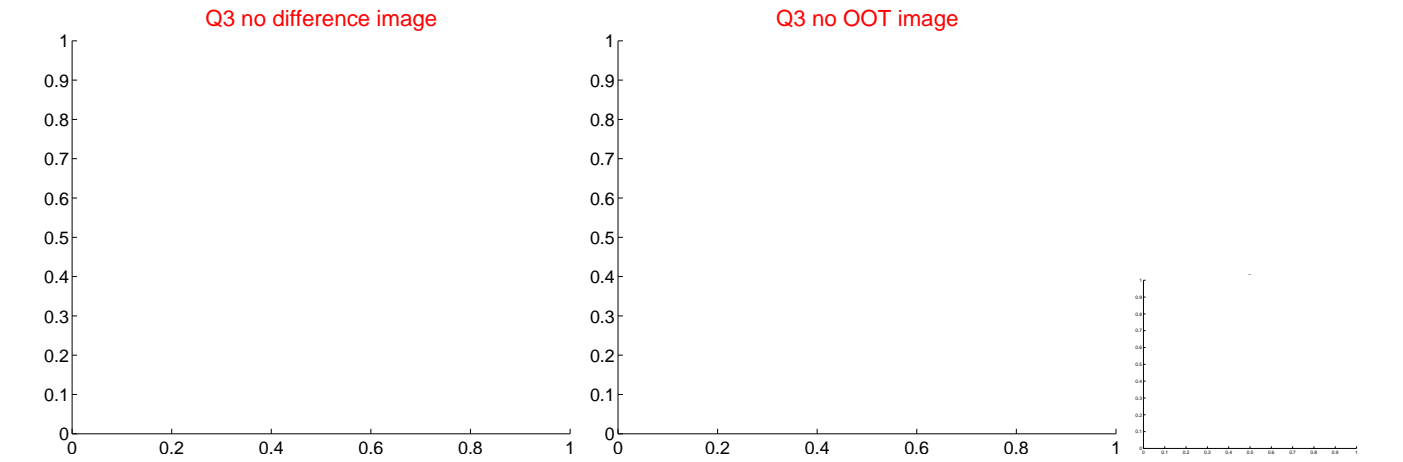
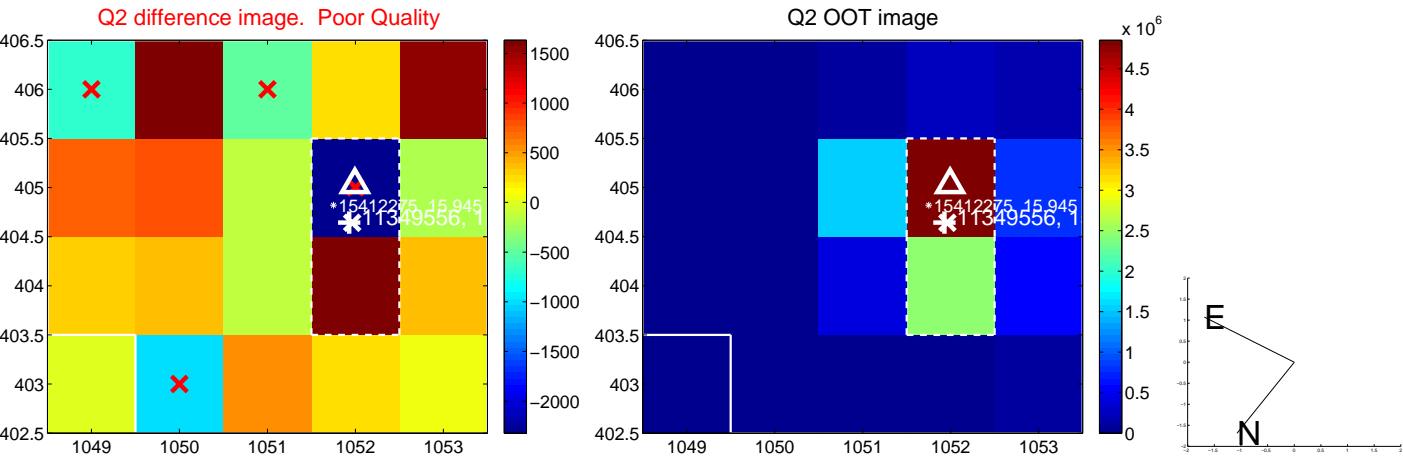
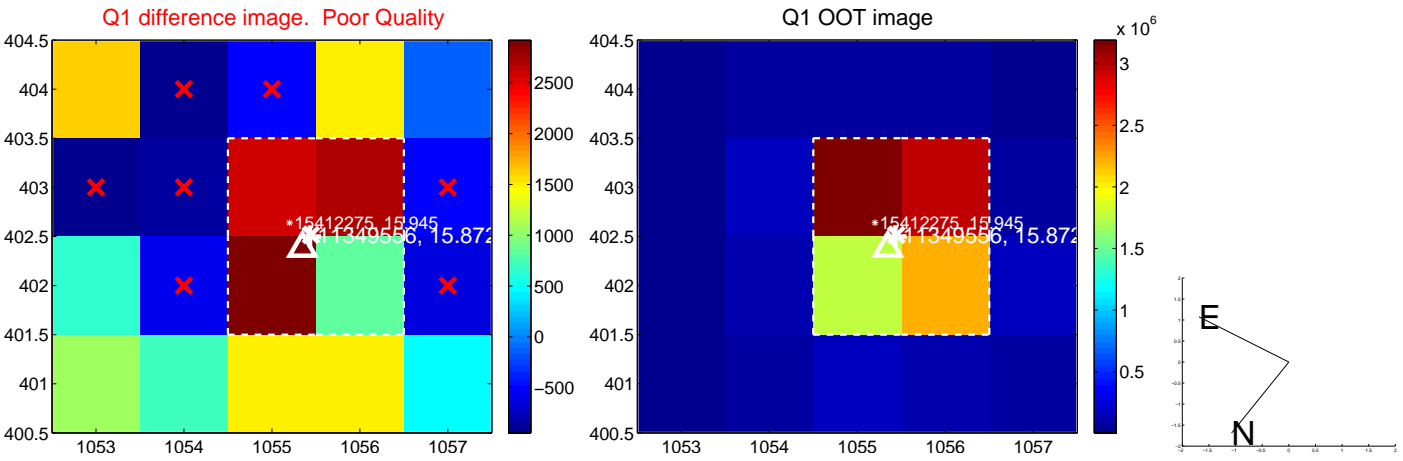
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.746 ± 0.794	0.94	0.683 ± 0.651	0.300 ± 0.679
PRF-fit source offset from KIC position	0.613 ± 0.715	0.86	0.561 ± 0.597	0.245 ± 0.644
photometric centroid source offset	1.82 ± 1.35	1.35	1.64 ± 1.38	-0.78 ± 1.23

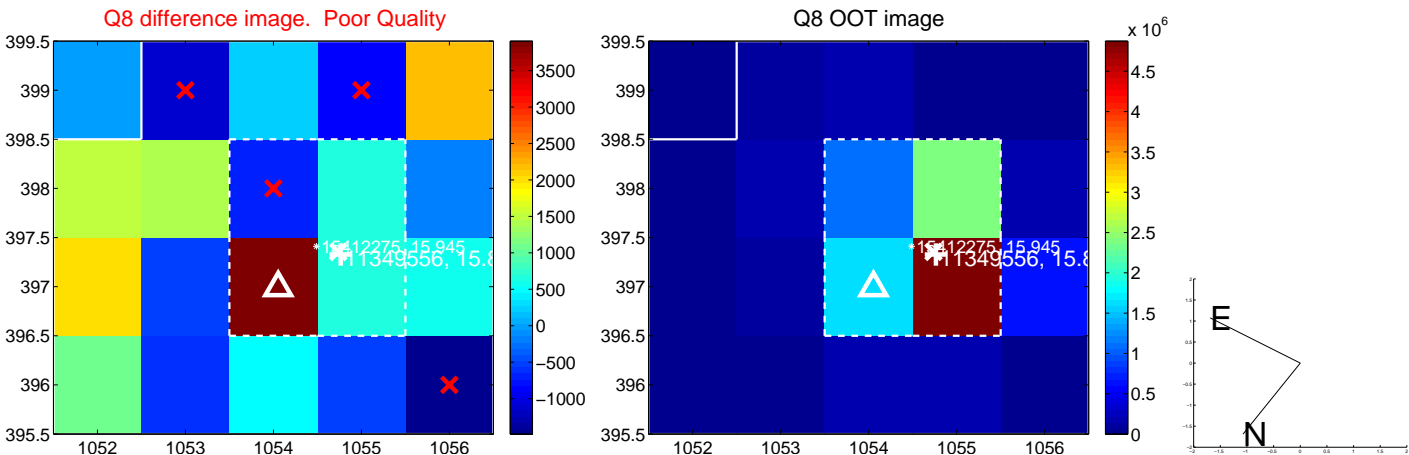
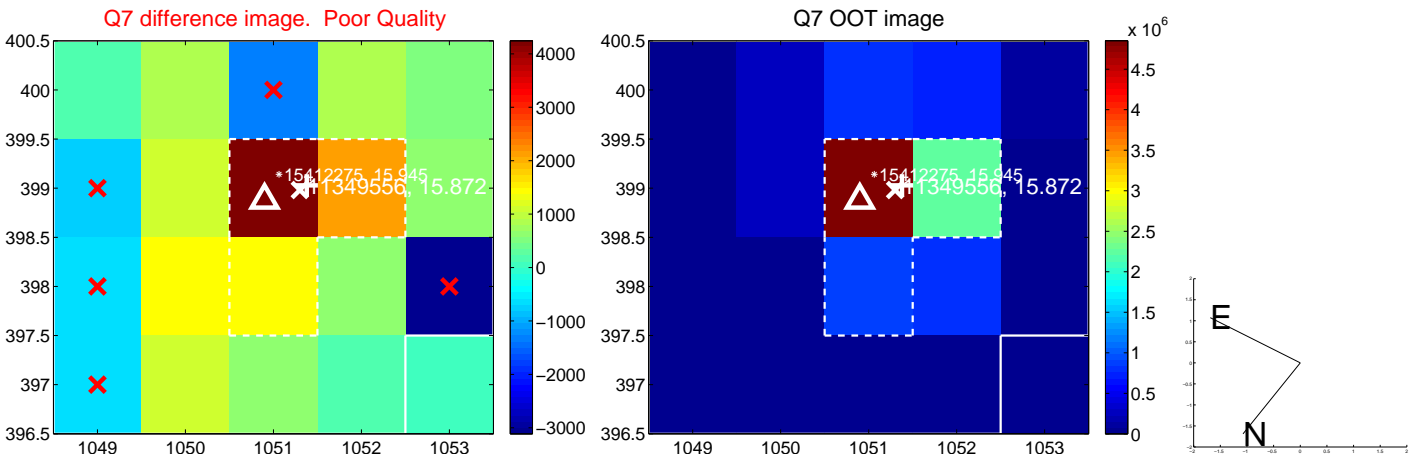
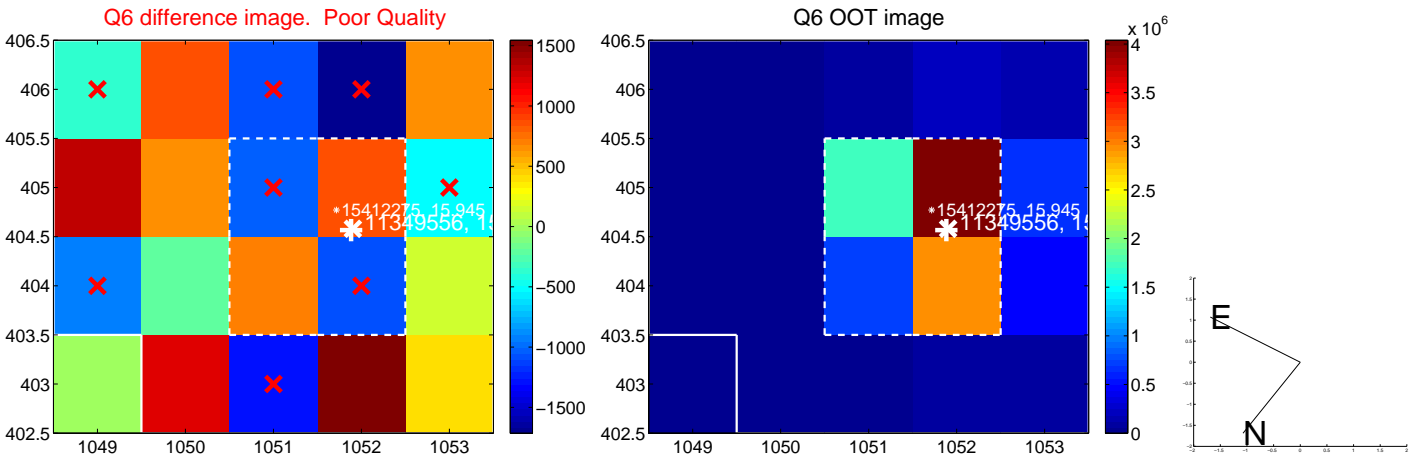
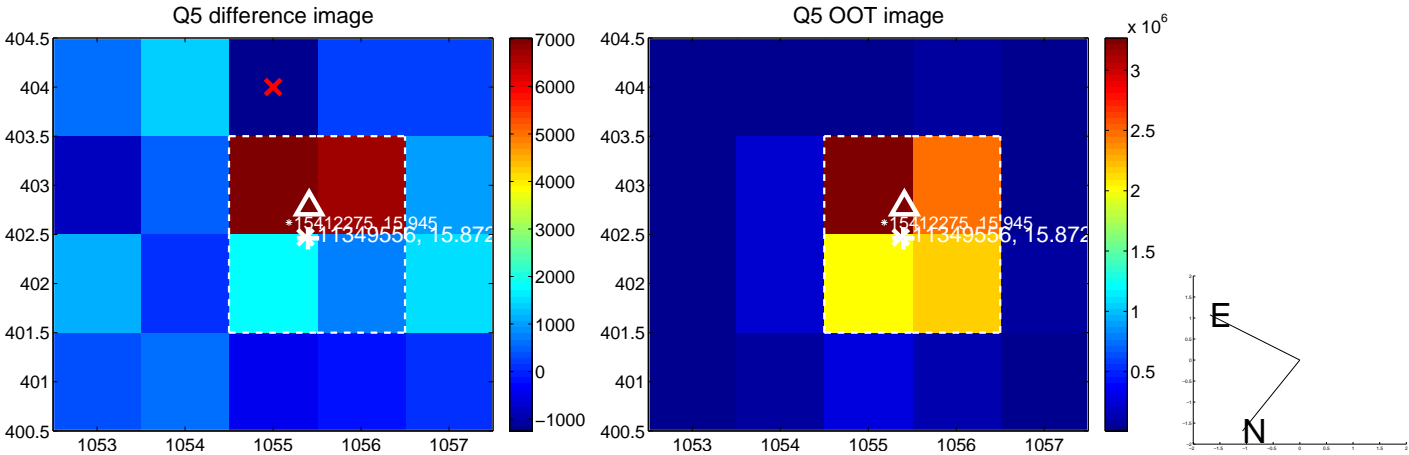


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

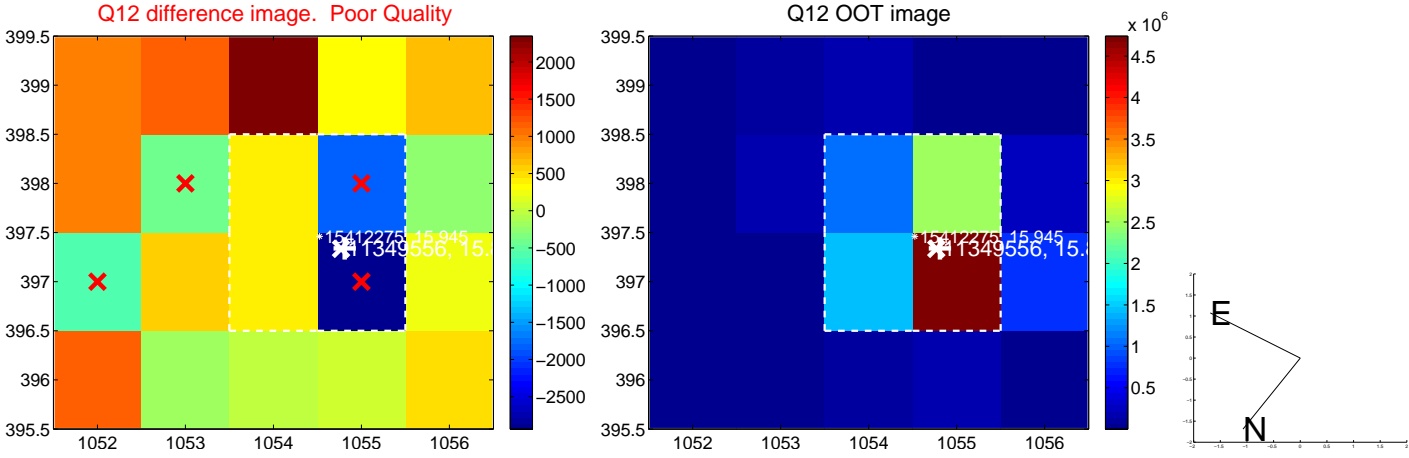
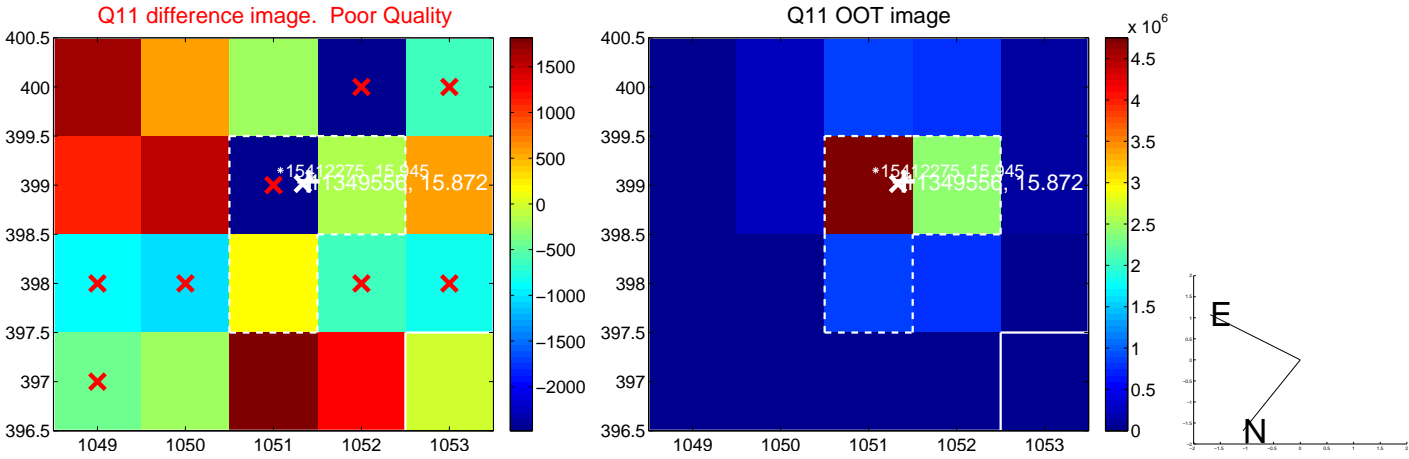
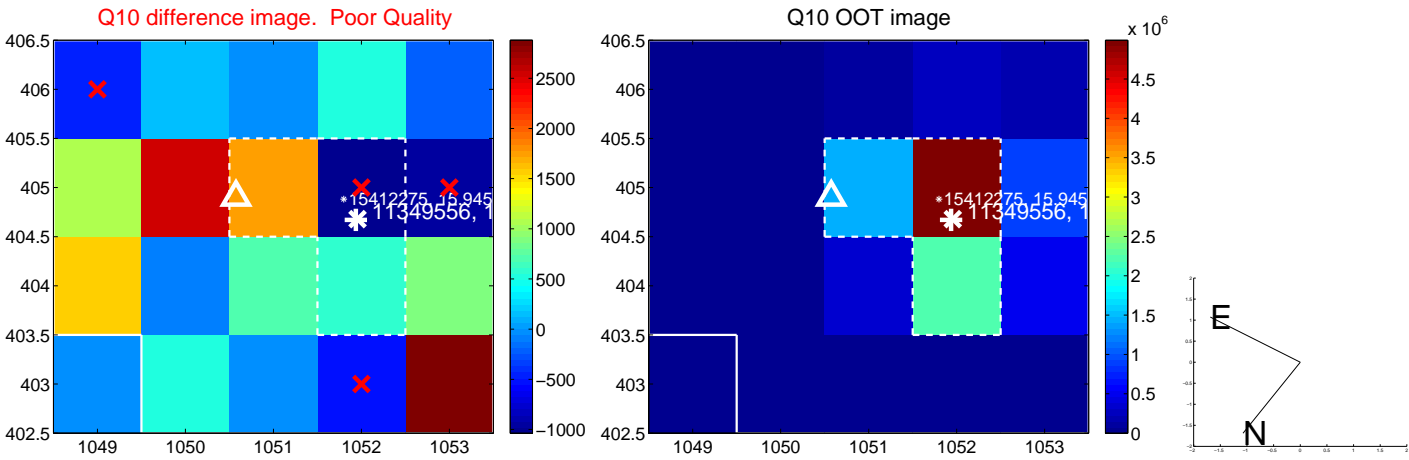
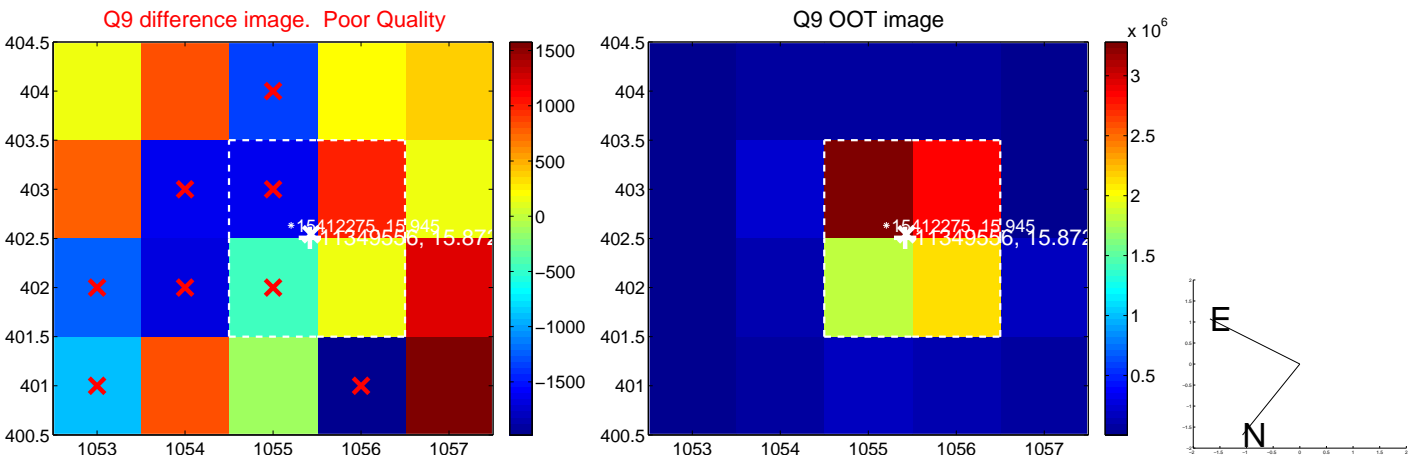
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



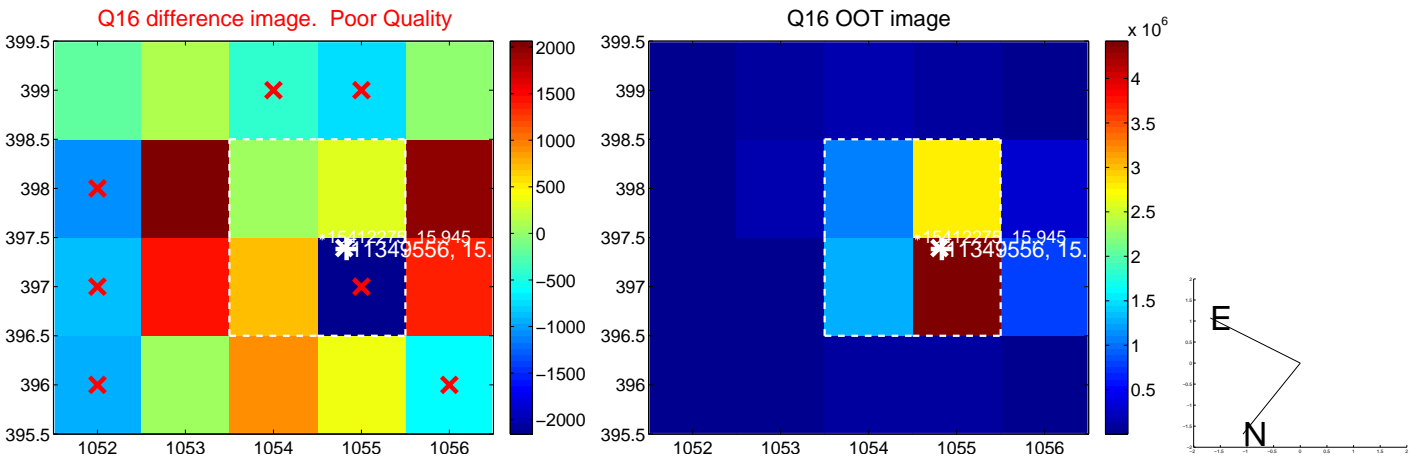
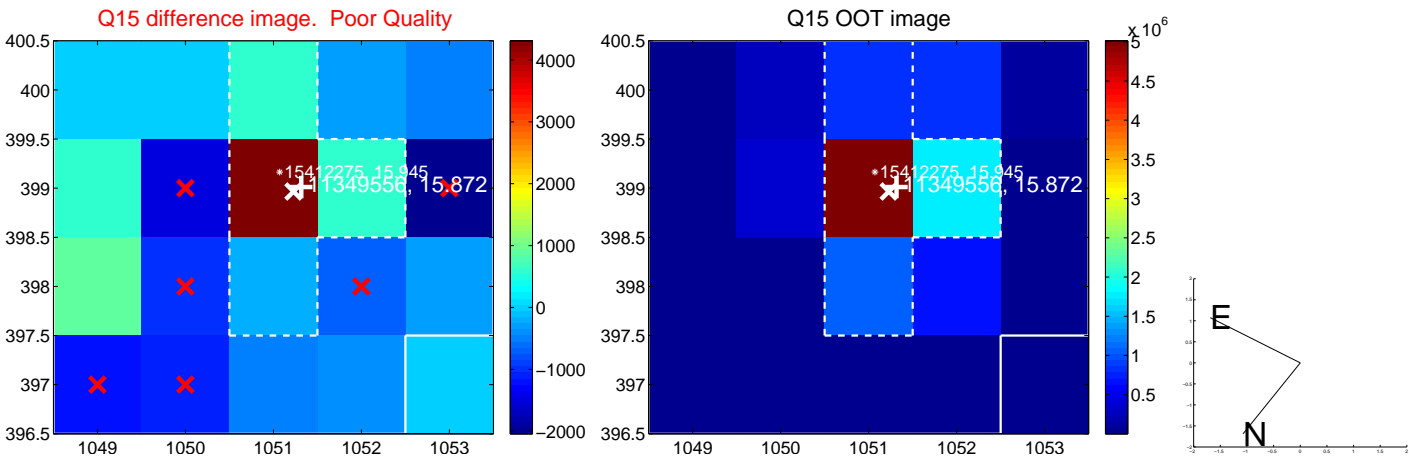
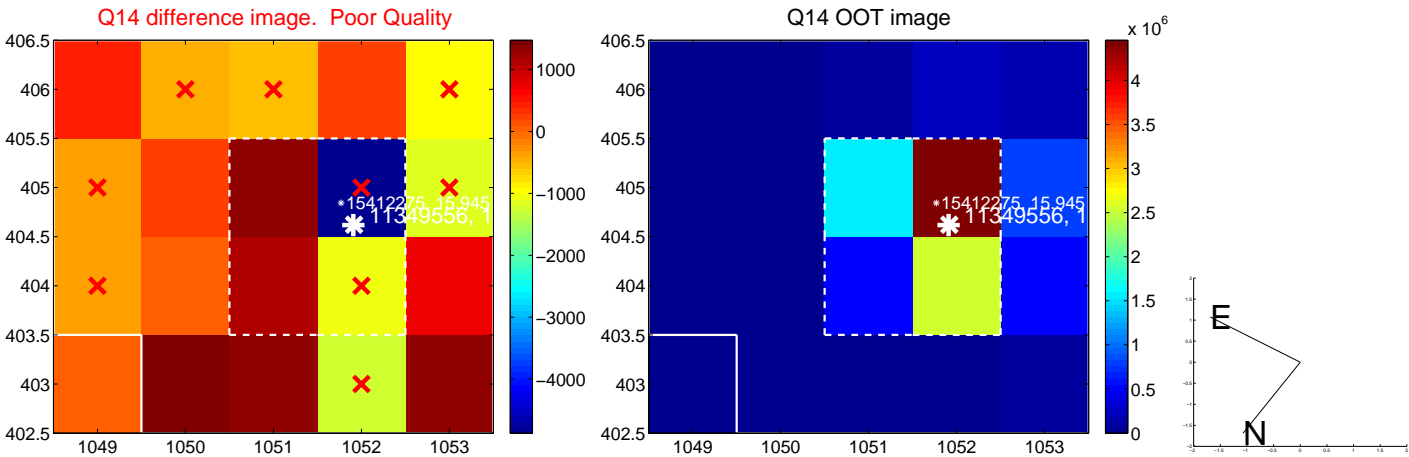
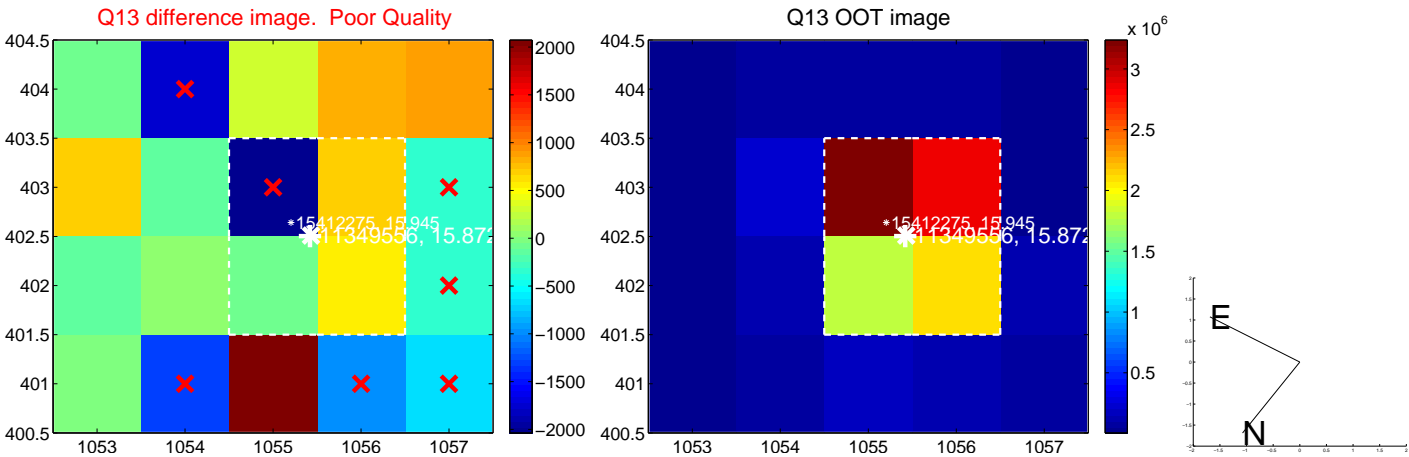
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



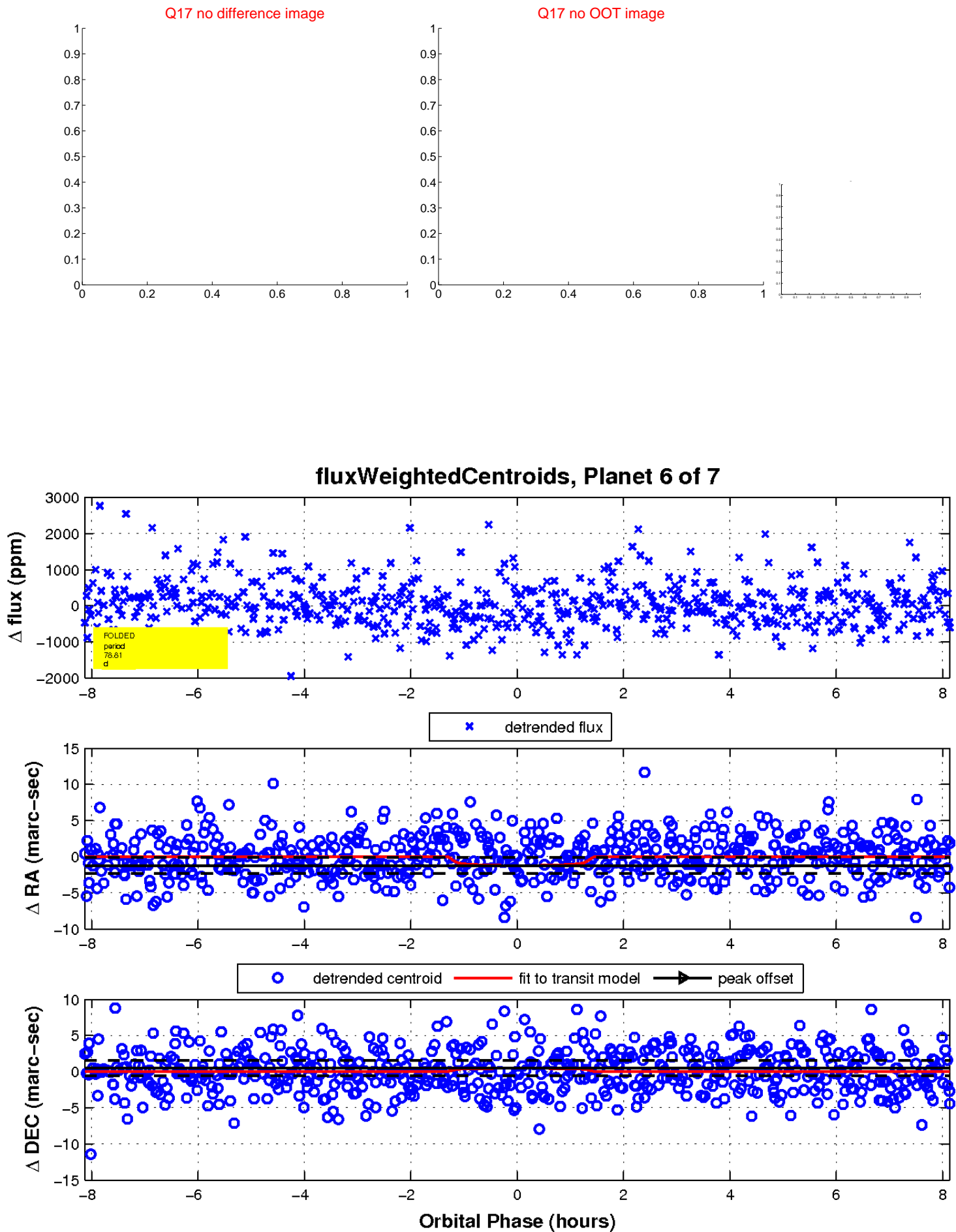
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

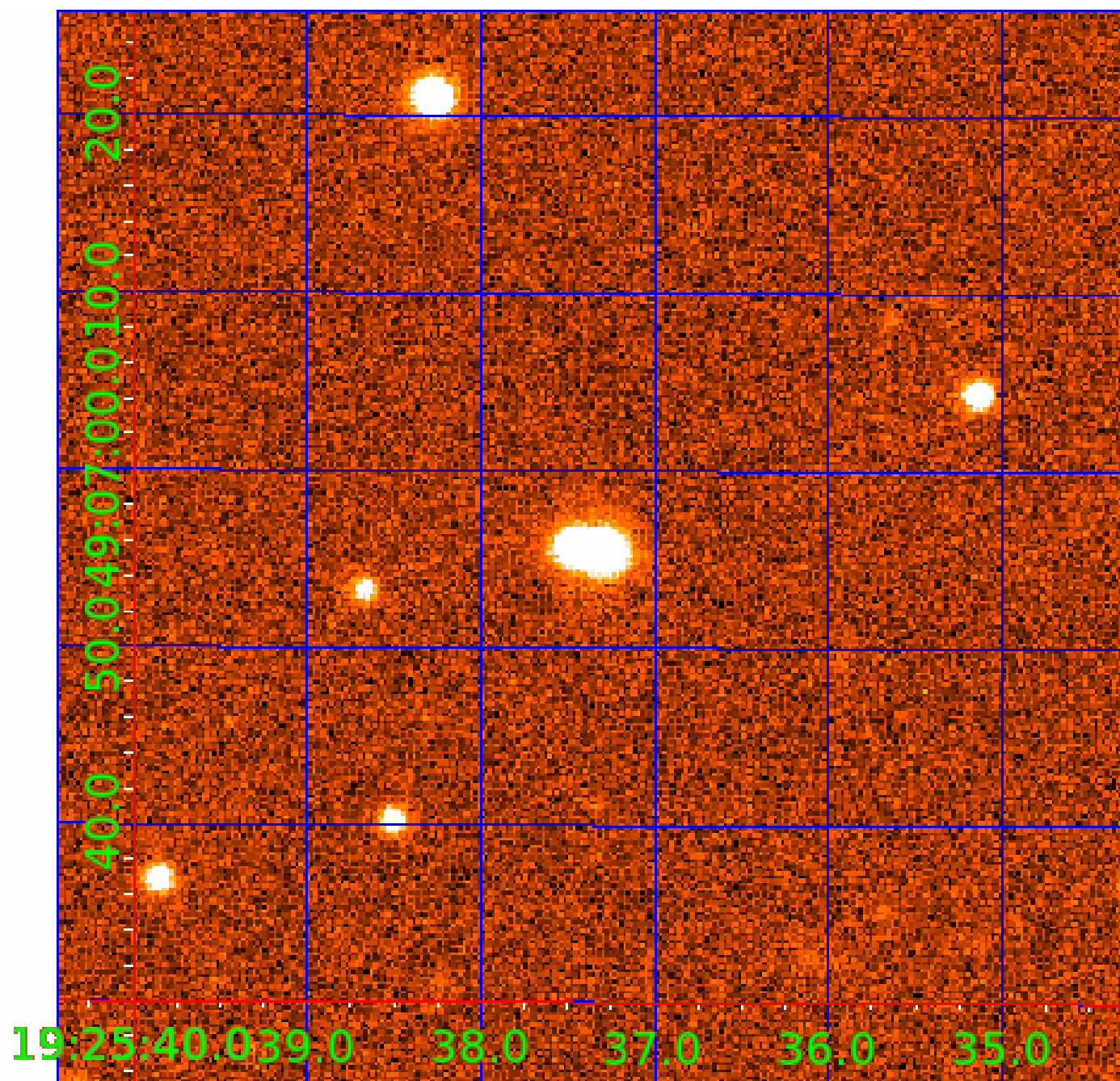


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011349556

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})
011349556-01	OBS	No	1.692946	131.654327	94.8	10.749	10.0	11.5	0.35	3650	0.36	48.73
011349556-02	OBS	No	74.847656	155.754153	1510.0	5.463	25.2	10.4	0.35	3650	1.45	0.31
011349556-04	OBS	No	50.643544	132.657026	882.4	2.569	9.1	9.0	0.35	3650	1.11	0.53
011349556-05	OBS	No	85.309875	147.730851	556.7	7.288	10.1	5.3	0.35	3650	0.84	0.26
011349556-06	OBS	No	78.807260	134.518839	759.1	2.715	8.2	6.8	0.35	3650	1.00	0.29
011349556-07	OBS	No	57.324570	152.538208	334.2	9.091	8.4	4.0	0.35	3650	0.67	0.45

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011349556-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
011349556-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011349556-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
011349556-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011349556-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
011349556-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT

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

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

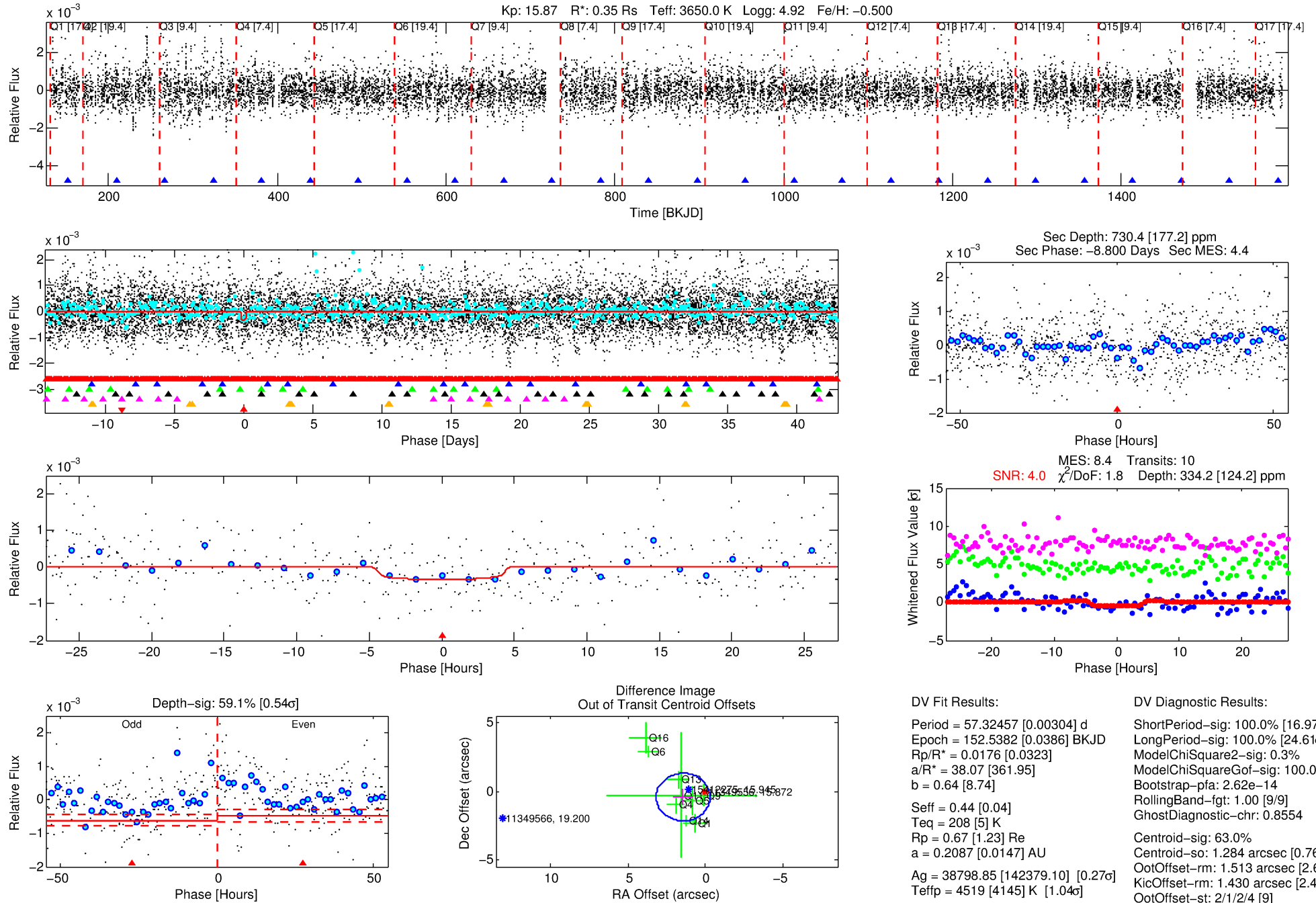
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011349556-07

No Significant Match Found

DV One-Page Summary

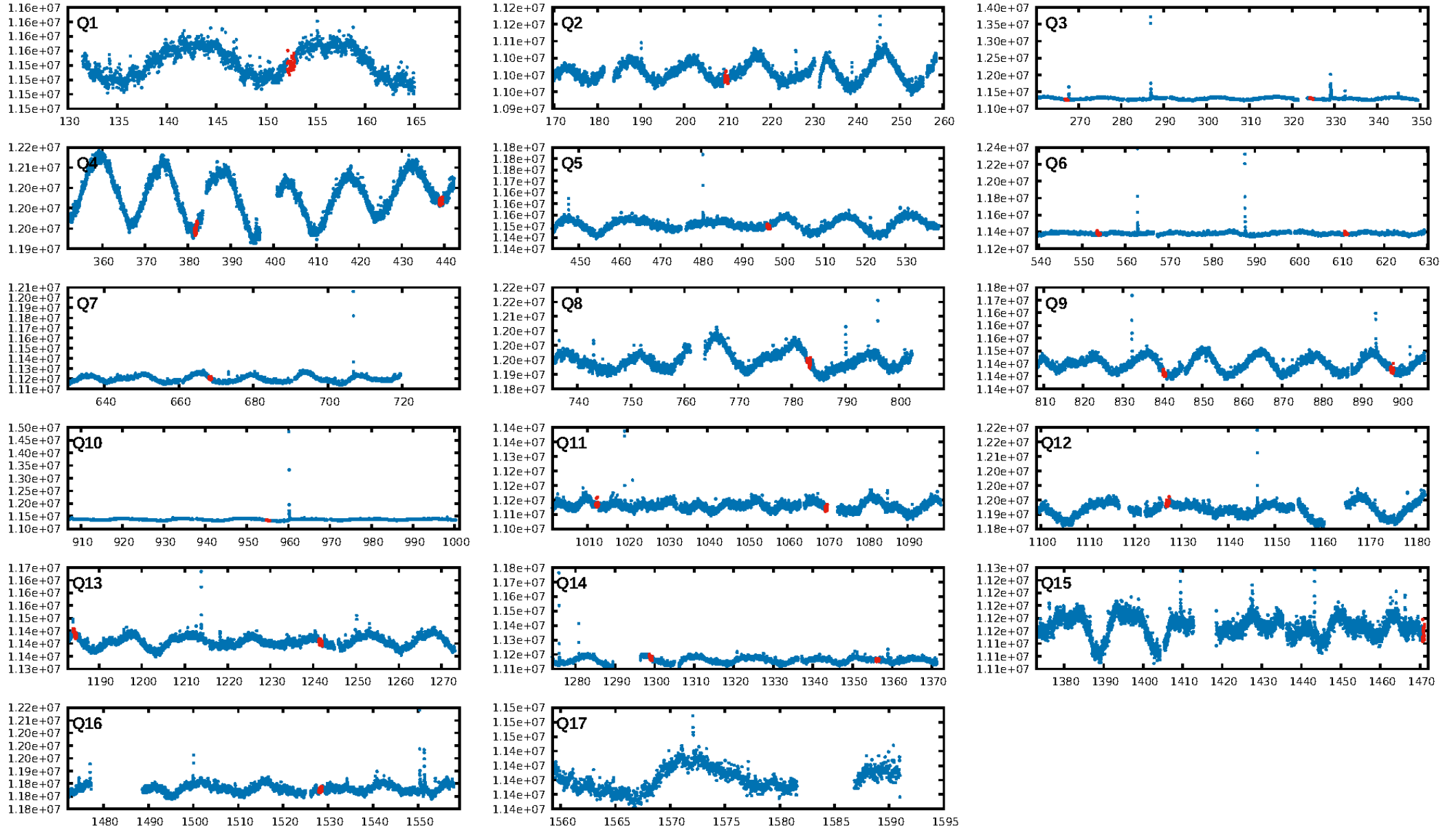
KIC: 11349556 Candidate: 7 of 7 Period: 57.325 d



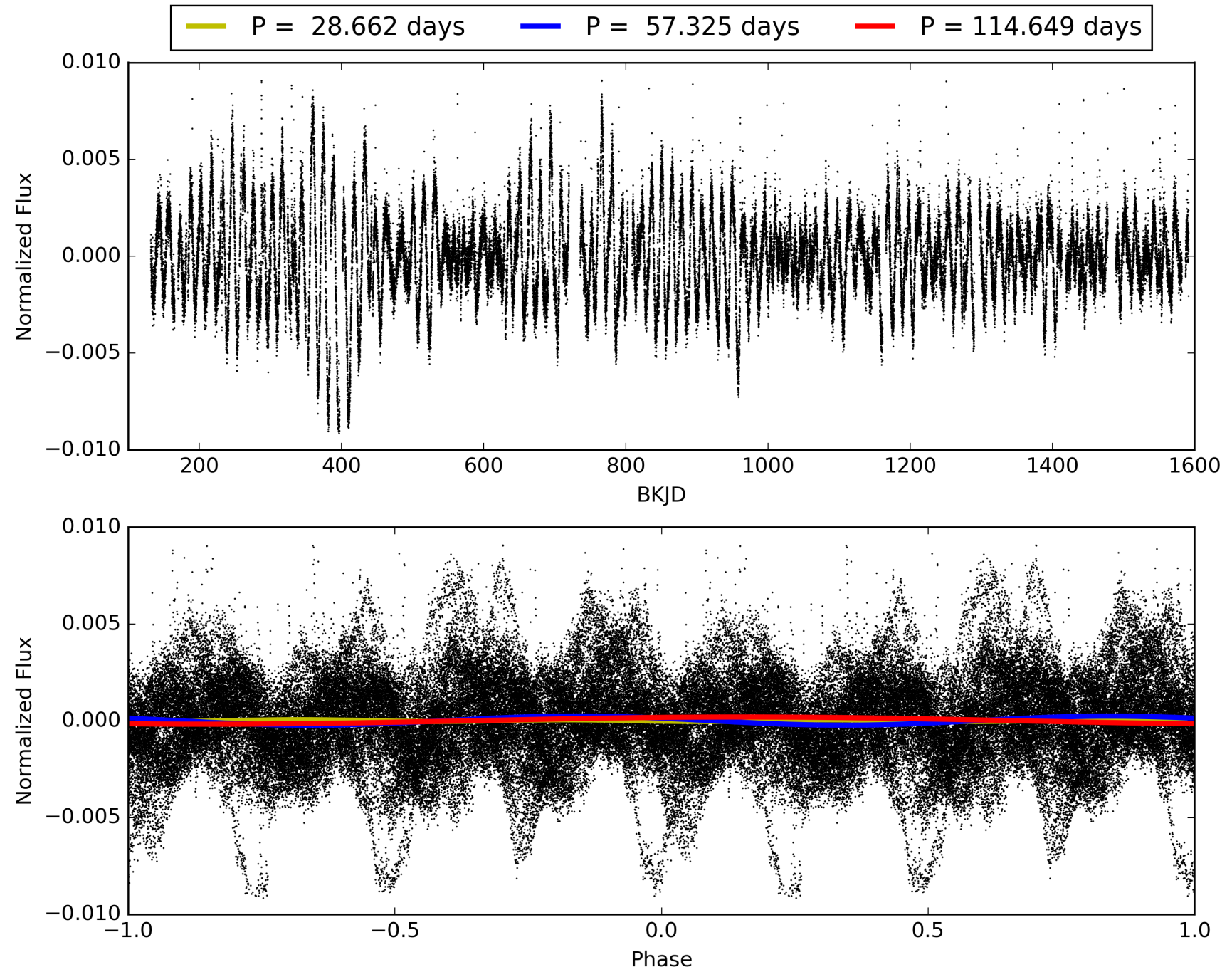
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:58:29 Z

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

TCE 011349556-07, PDC Light Curves

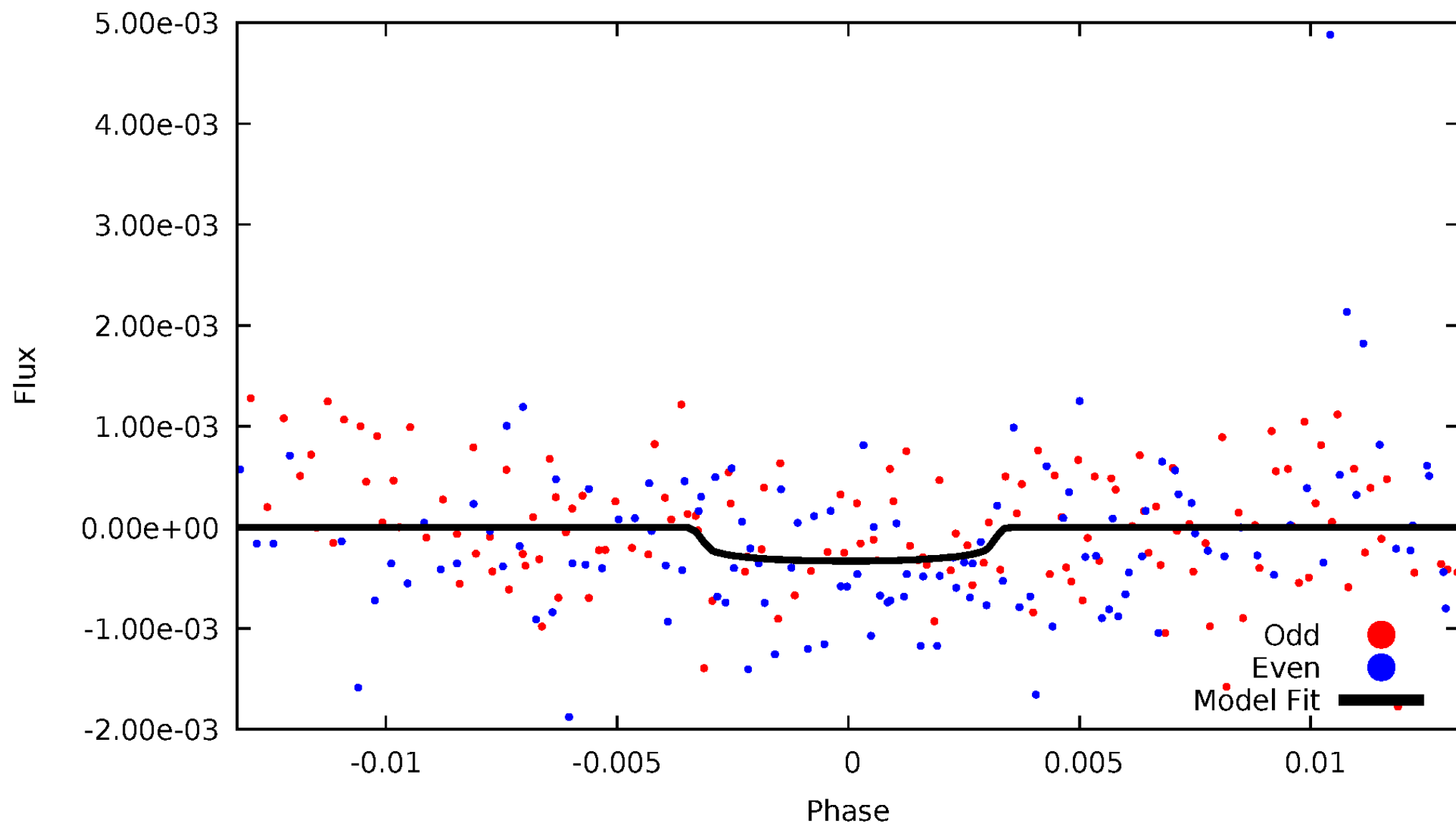


TCE 011349556-07



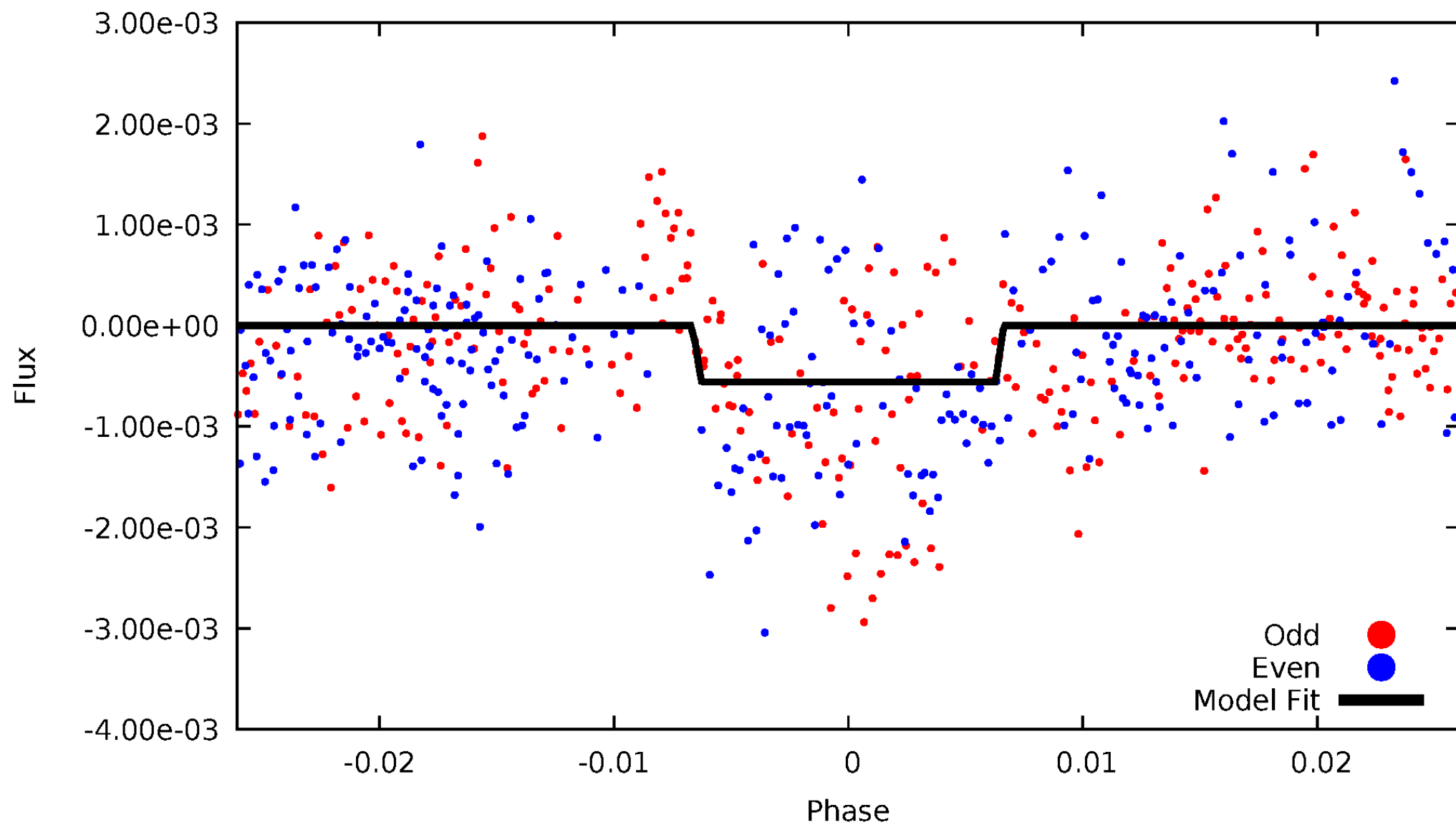
DV Odd/Even

TCE 011349556-07



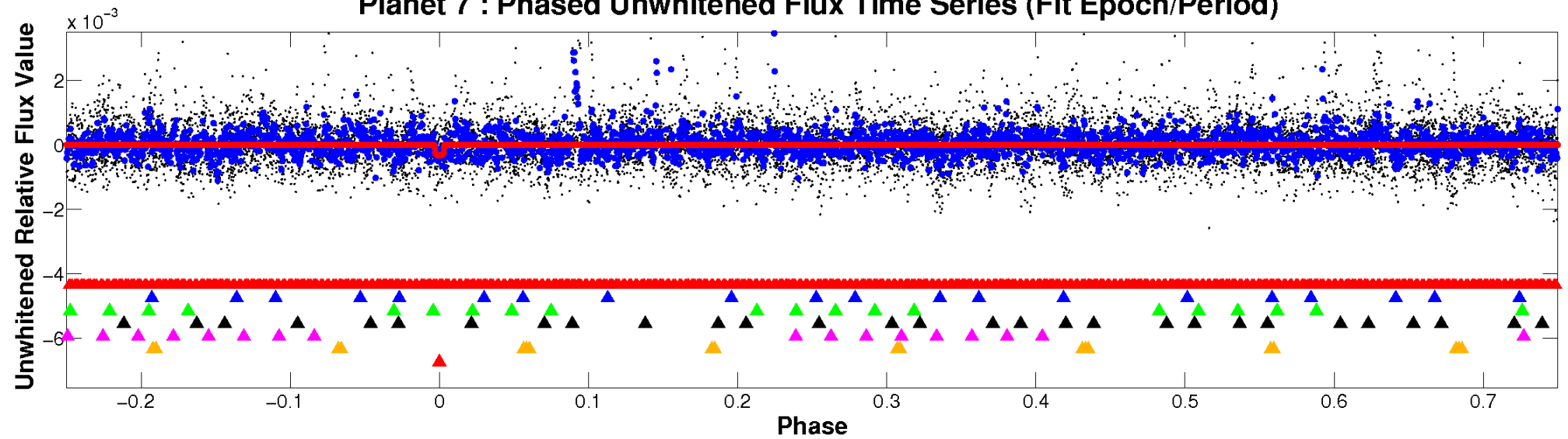
ALT Odd/Even

TCE 011349556-07

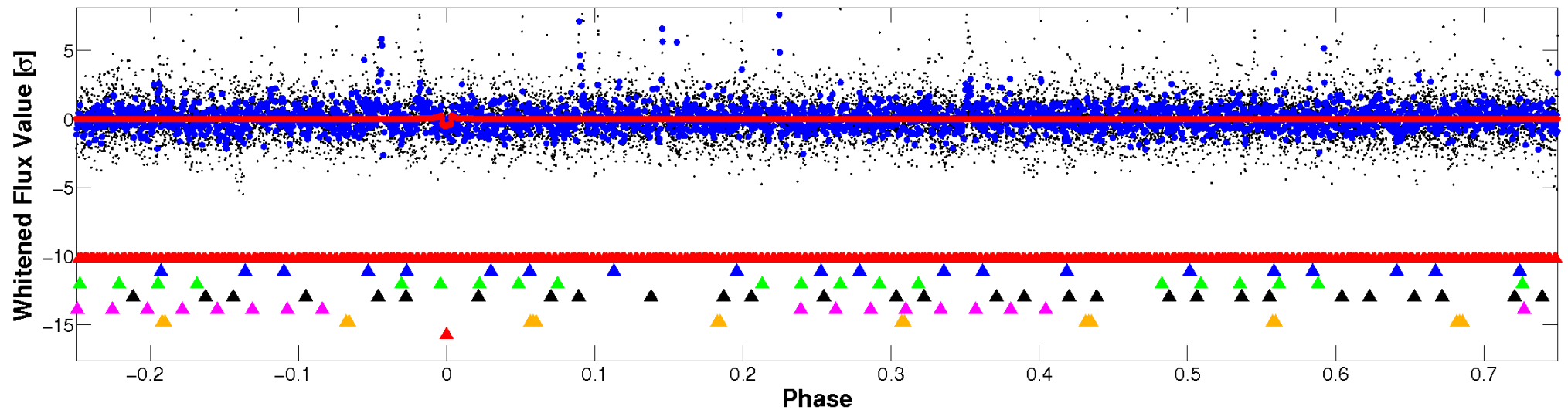


Non-Whitened Vs. Whitened Light Curve

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

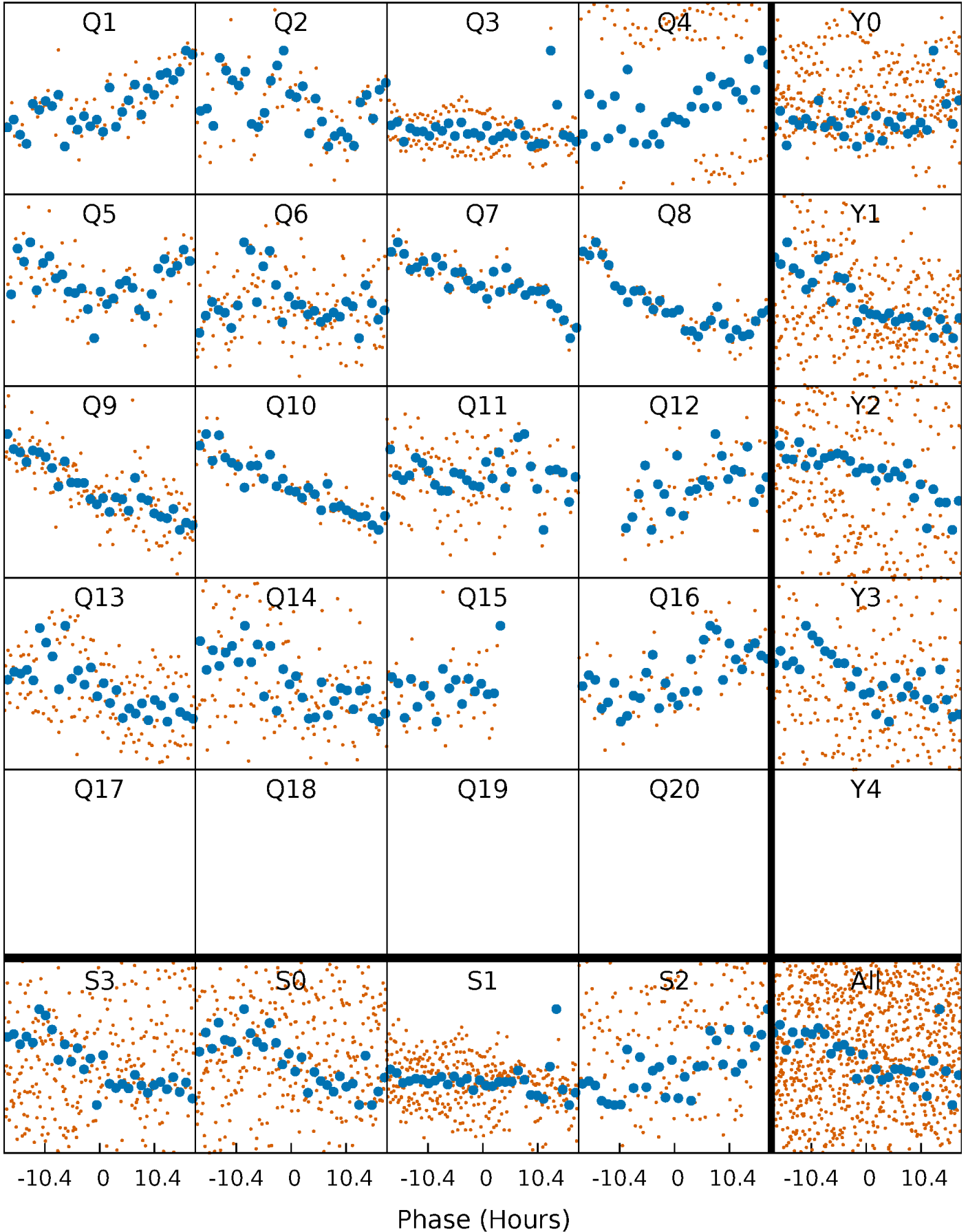


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



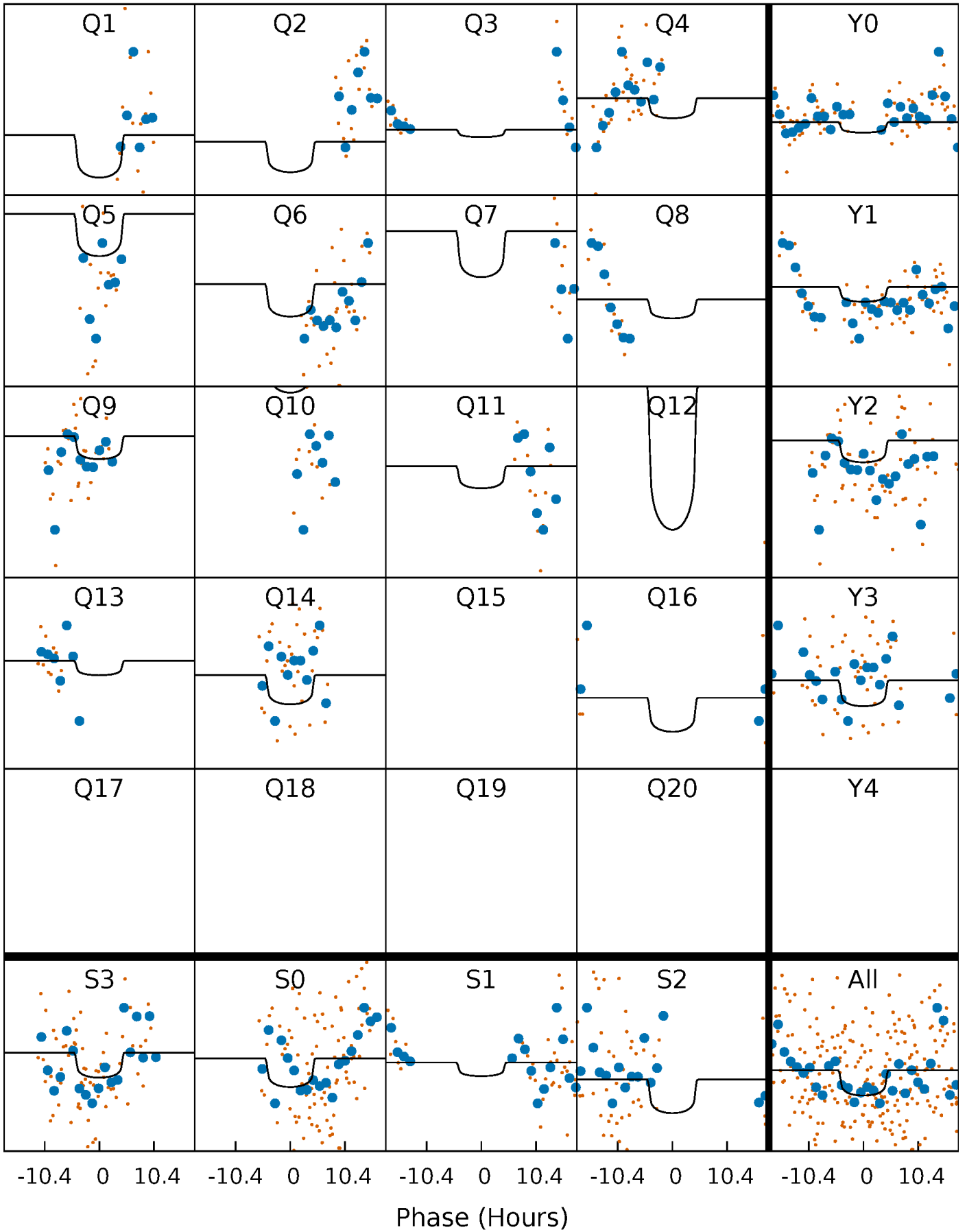
PDC Quarter-Phased Transit Curves

TCE 011349556-07 $P = 57.324570$ Days $T_0 = 152.538208$ (BKJD)



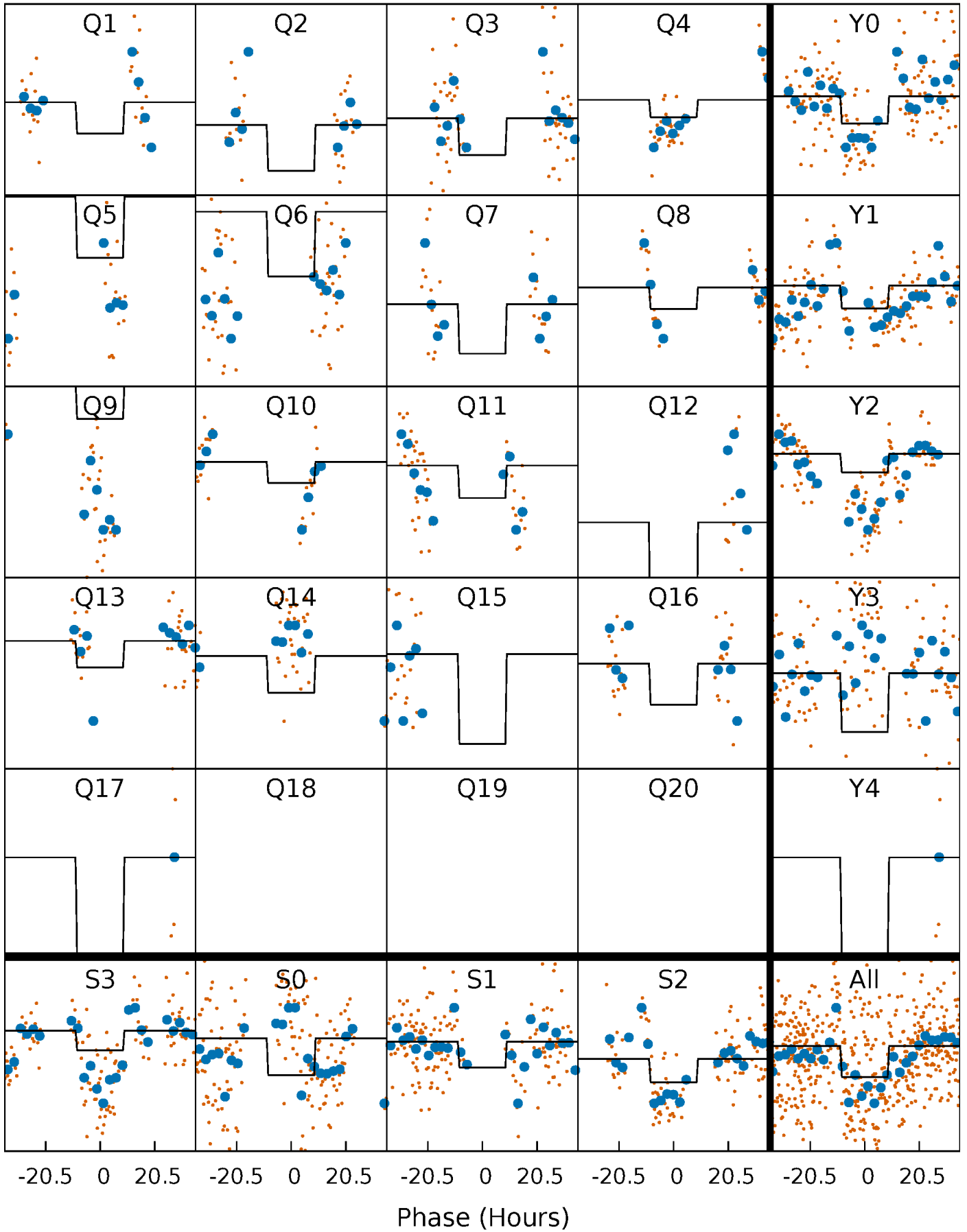
DV Quarter-Phased Transit Curves

TCE 011349556-07 P= 57.324570 Days $T_0=152.538208$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

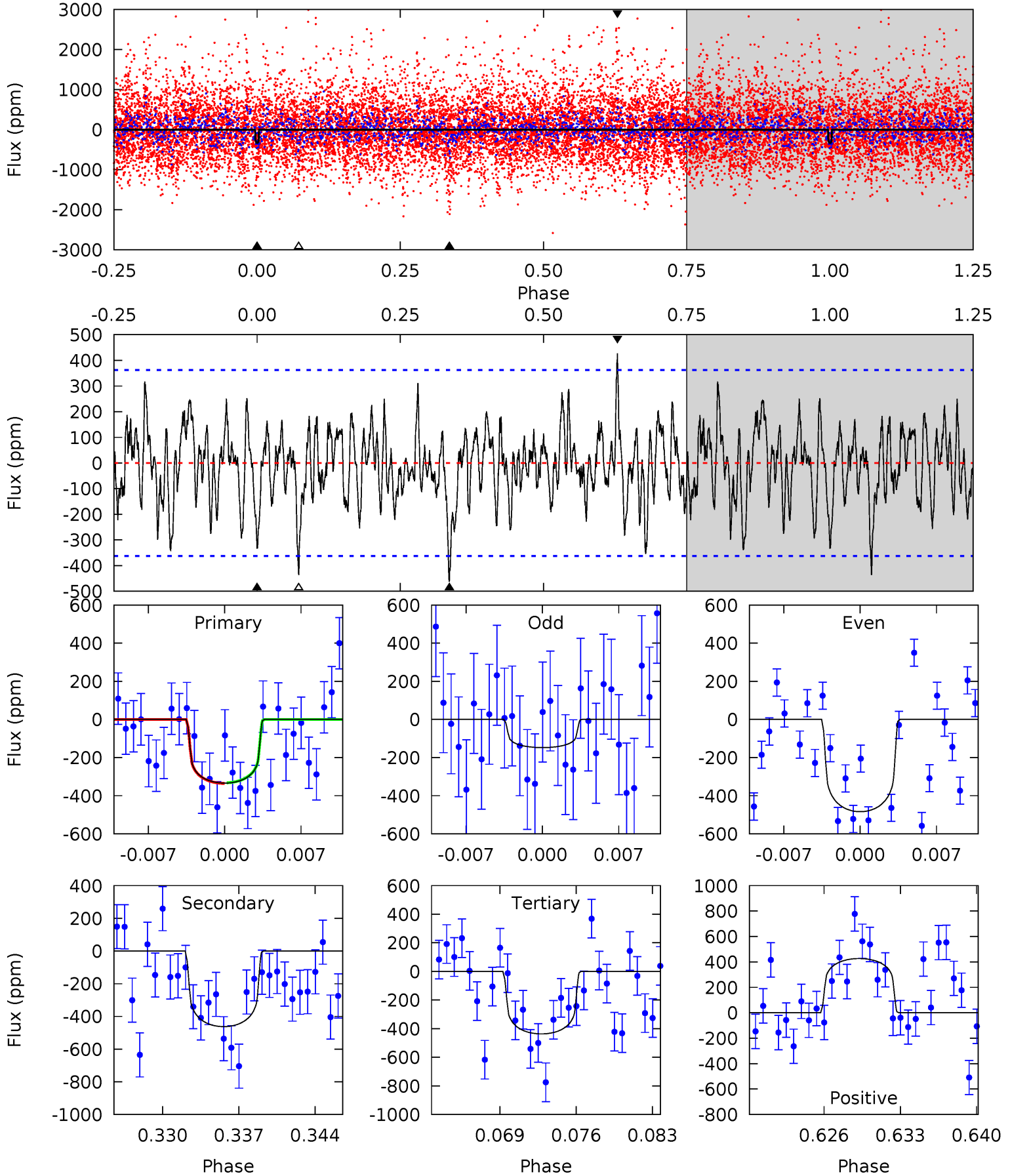
TCE 011349556-07 P= 57.340454 Days $T_0=152.205909$ (BKJD)



DV Model-Shift Uniqueness Test

011349556-07, P = 57.324570 Days, E = 95.213638 Days

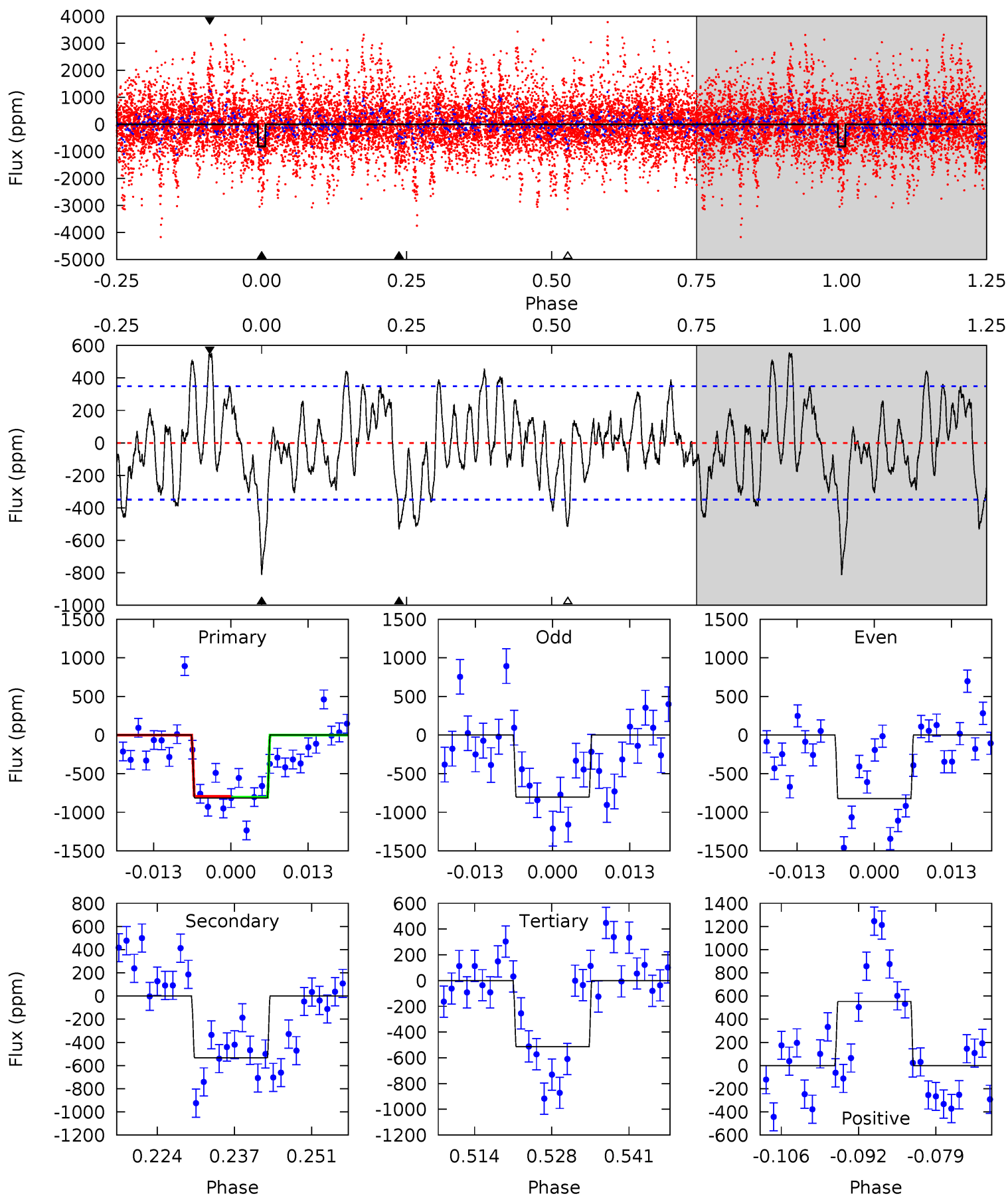
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.70	6.51	6.14	6.00	5.10	2.70	1.72	-1.45	-1.30	0.36	0.51	2.26	0.98	0.48	0.02



Alt Model-Shift Uniqueness Test

011349556-07, P = 57.340454 Days, E = 94.865455 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.6	7.59	7.34	7.88	4.97	2.48	2.81	4.26	3.72	0.25	-0.29	0.15	0.87	0.40	0.08



Stellar Parameters For KIC 011349556

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3650^{+43}_{-49}	$4.919^{+0.036}_{-0.036}$	$-0.500^{+0.100}_{-0.100}$	$0.349^{+0.030}_{-0.034}$	$0.370^{+0.029}_{-0.043}$	$12.220^{+2.307}_{-1.762}$
	+1%/-1%	+1%/-1%	+20%/-20%	+9%/-10%	+8%/-12%	+19%/-14%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 011349556-07 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-463 ± 71	$1.09^{+1.02}_{-0.71}$	291^{+6}_{-6}	3332^{+1457}_{-579}	9369^{+65881}_{-6891}
Alt.	-532 ± 70	$1.29^{+1.11}_{-0.83}$	291^{+5}_{-6}	3230^{+1379}_{-505}	7503^{+57574}_{-5272}

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

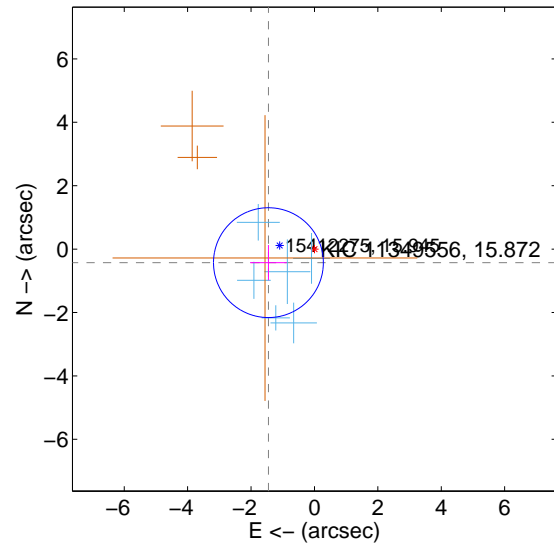
Supplemental centroid analysis for 011349556-07. Kepler magnitude: 15.87. Transit SNR 4.05

There are 6 quarters with good PRF difference image offsets

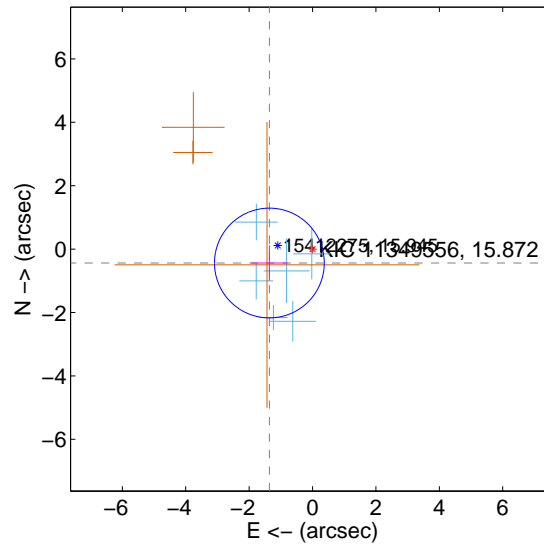
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.513 ± 0.577	2.62	1.451 ± 0.579	-0.428 ± 0.555
PRF-fit source offset from KIC position	1.430 ± 0.577	2.48	1.361 ± 0.579	-0.439 ± 0.555
photometric centroid source offset	1.28 ± 1.69	0.76	-1.27 ± 1.70	-0.20 ± 1.36

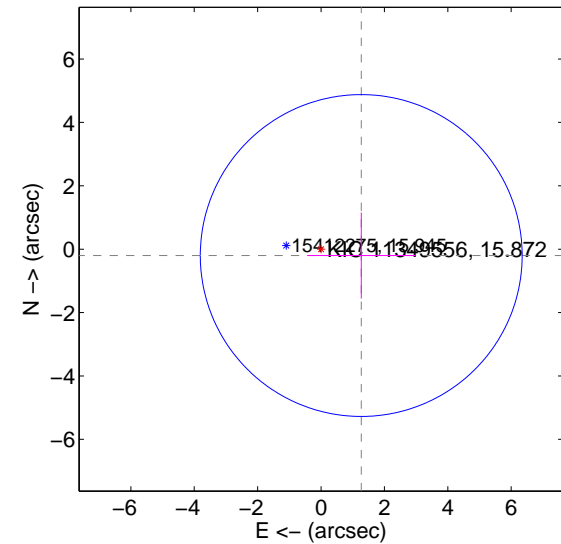
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

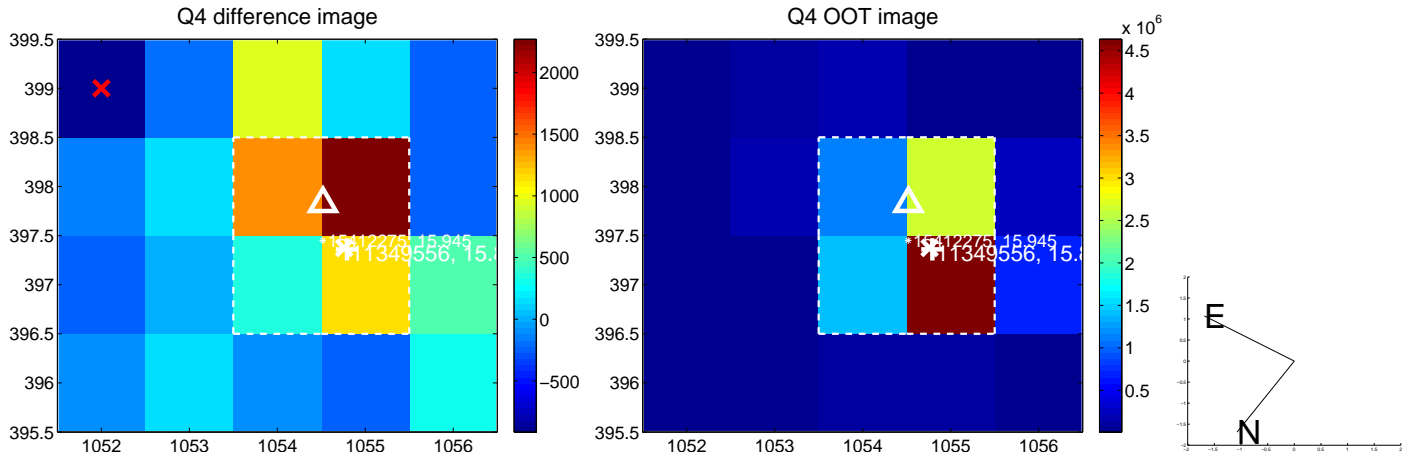
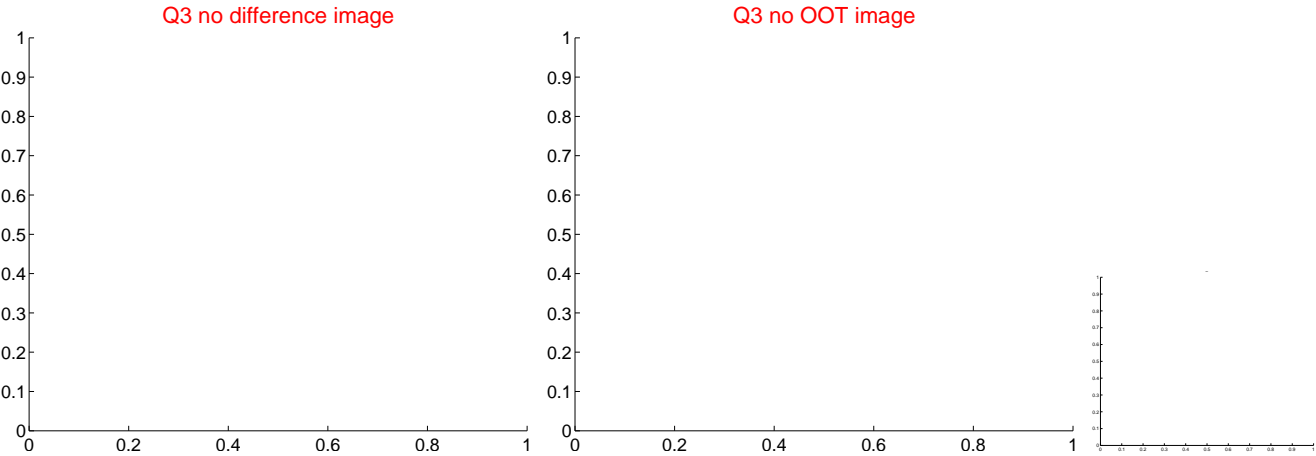
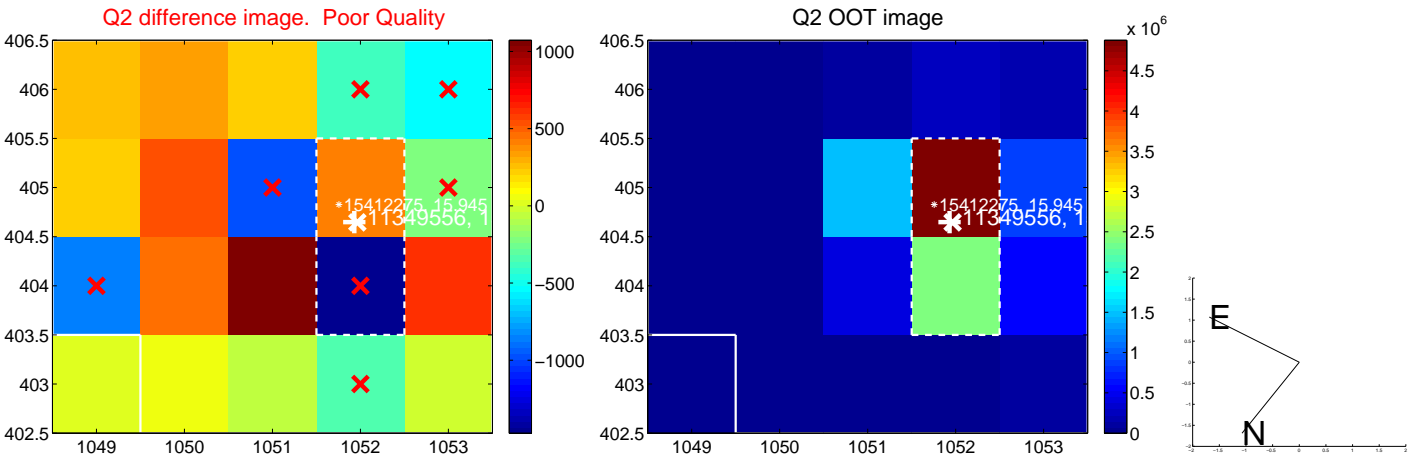
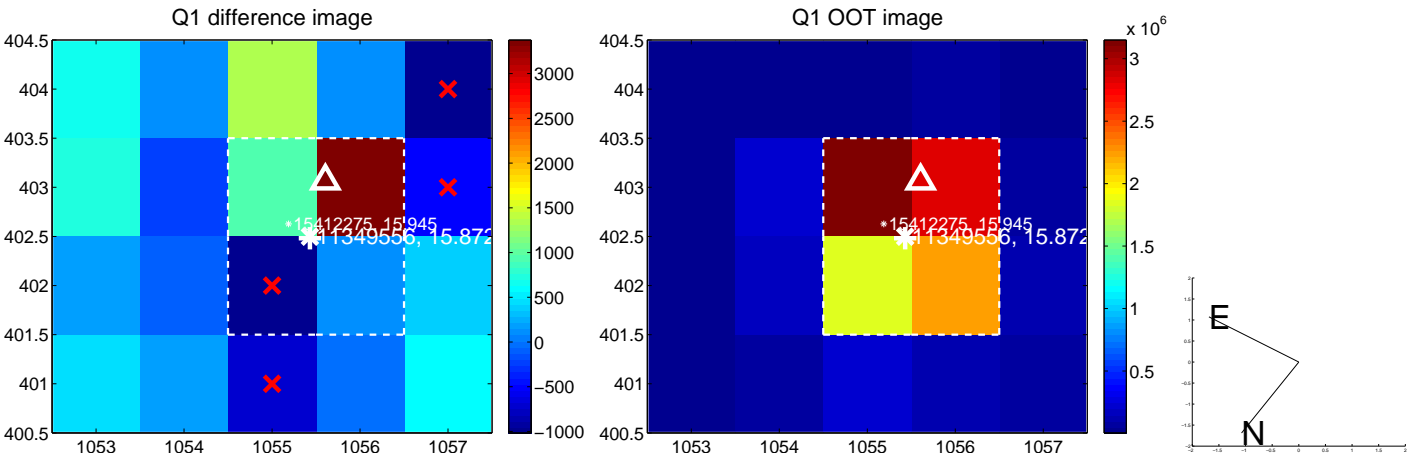


offset from photometric centroids

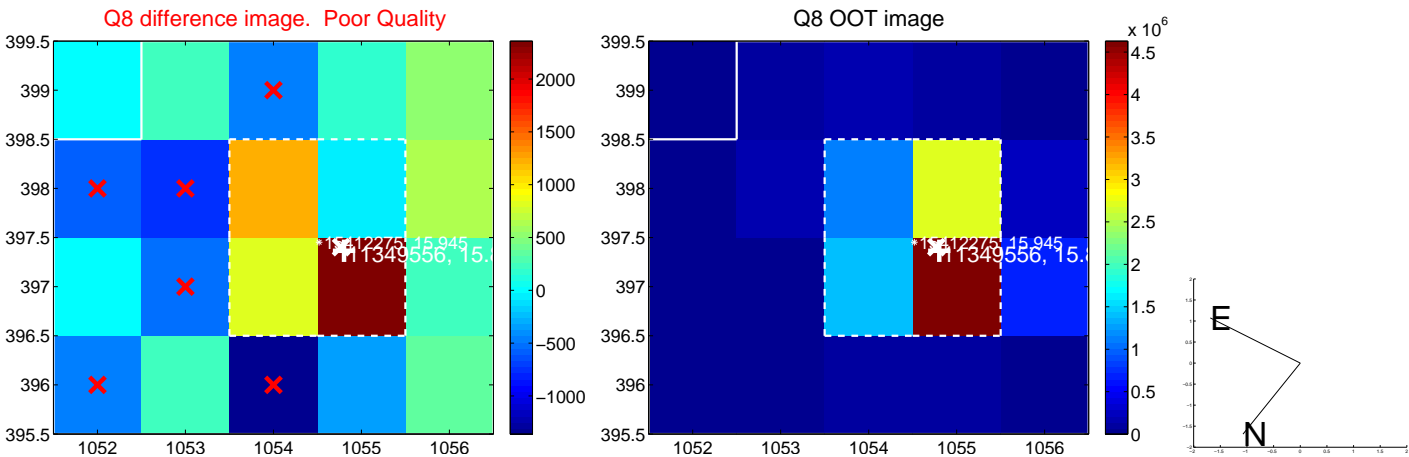
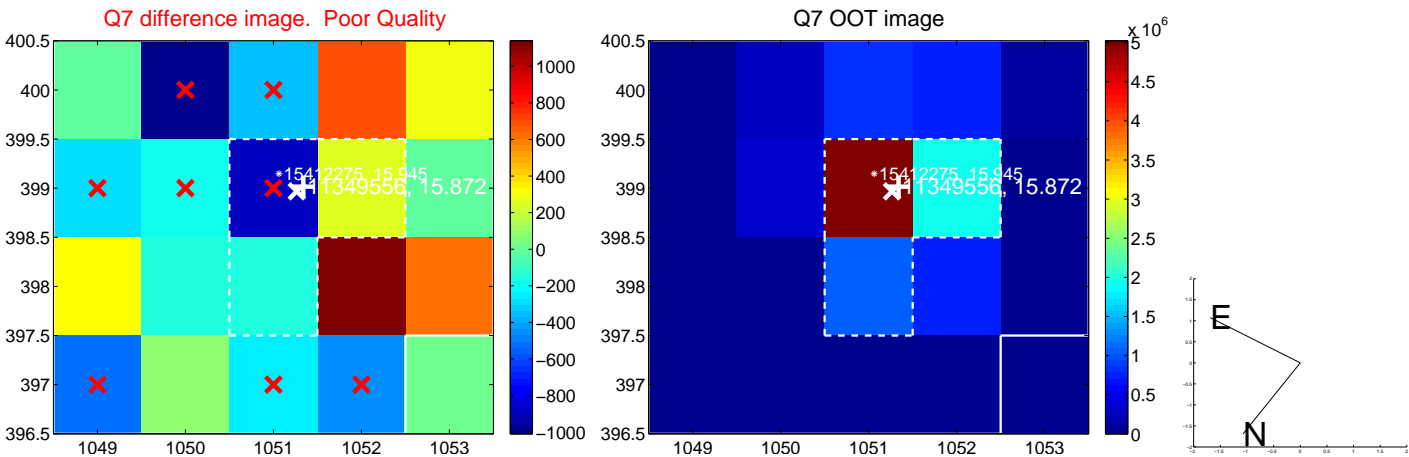
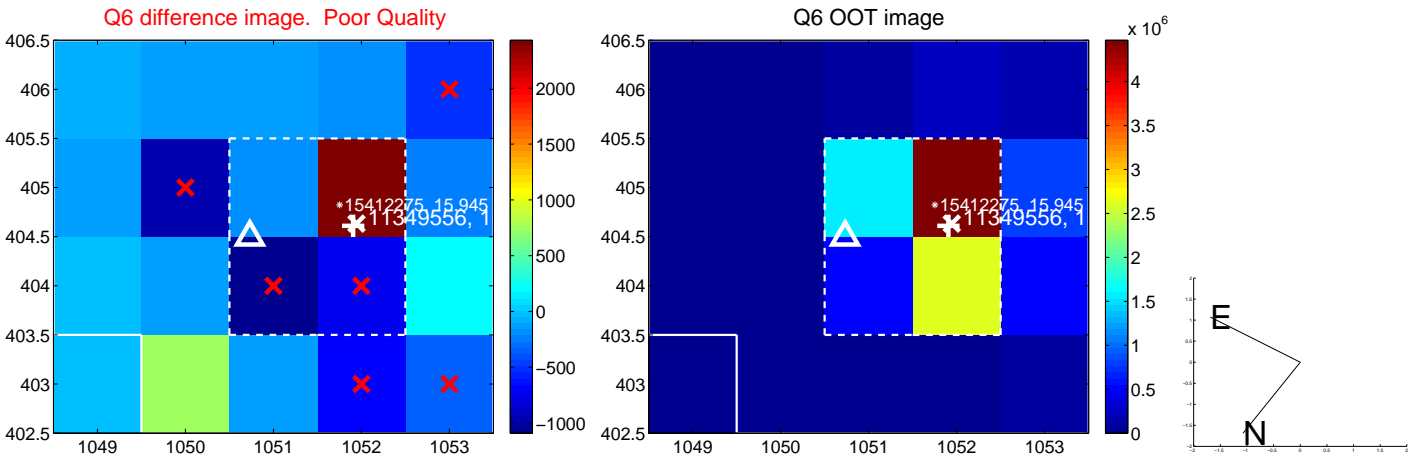
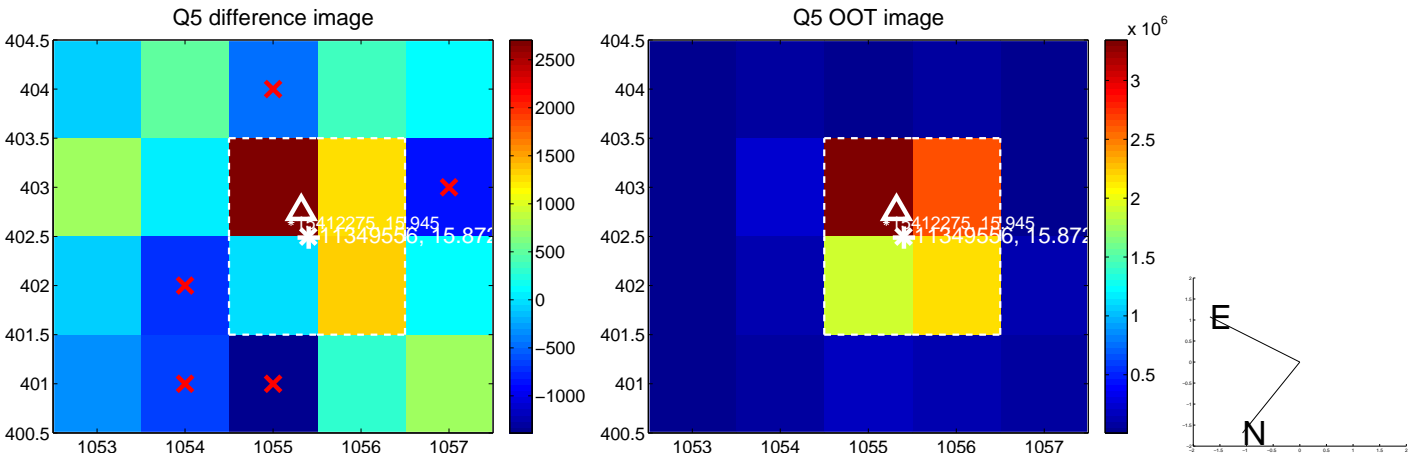


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

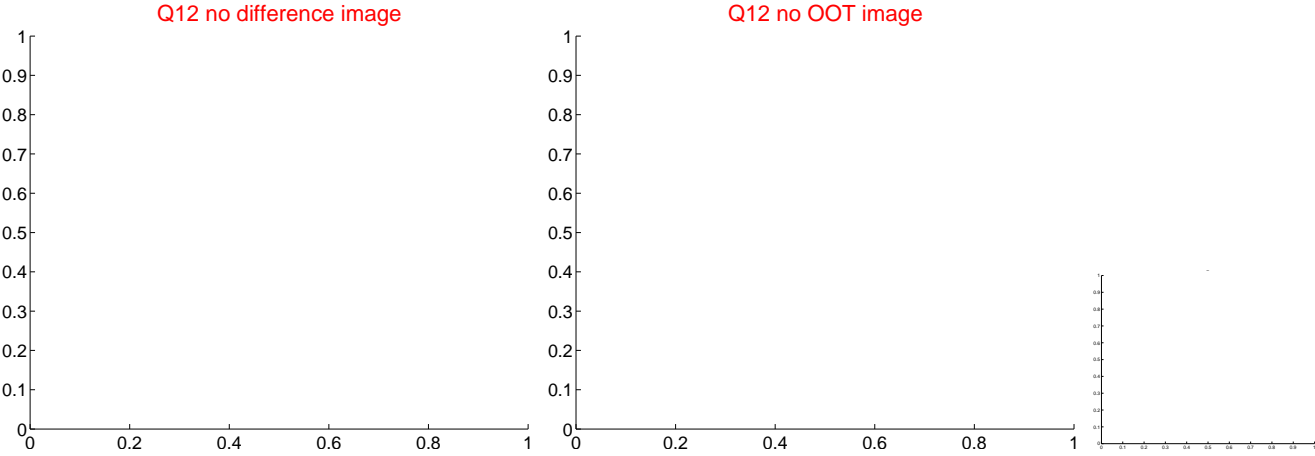
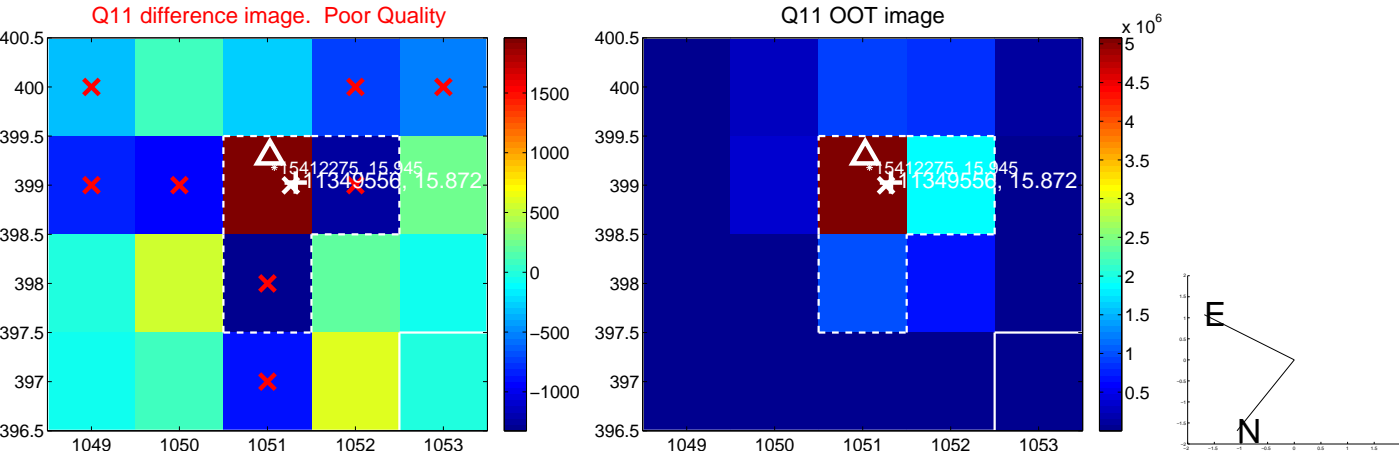
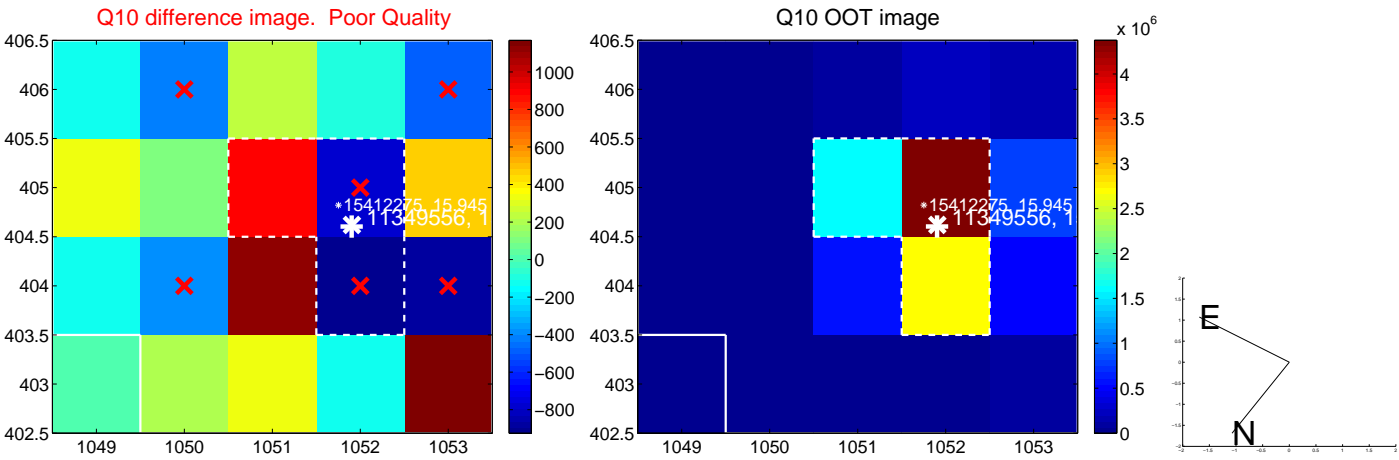
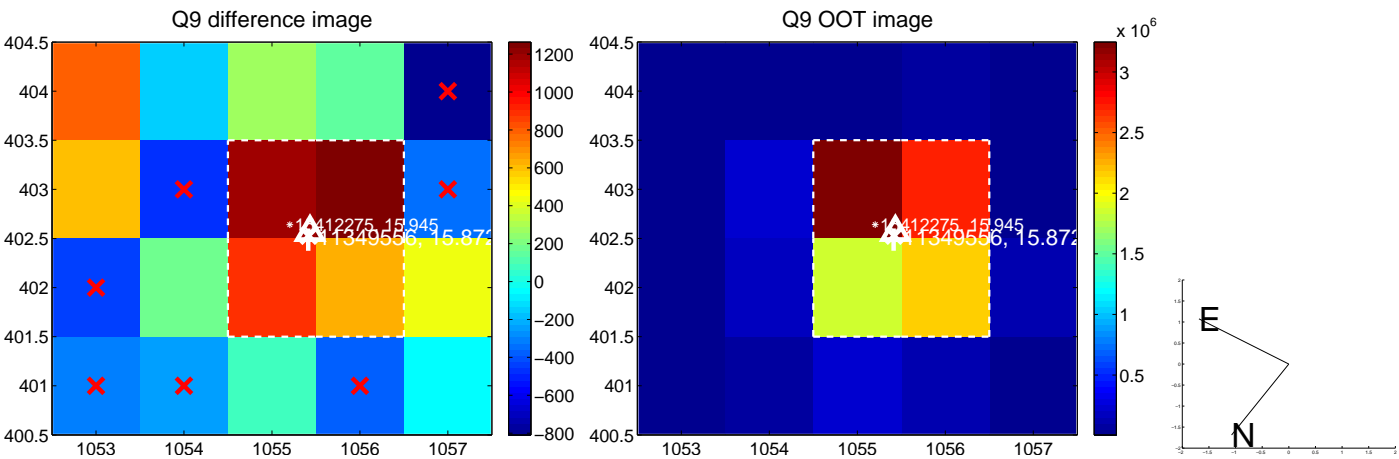
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



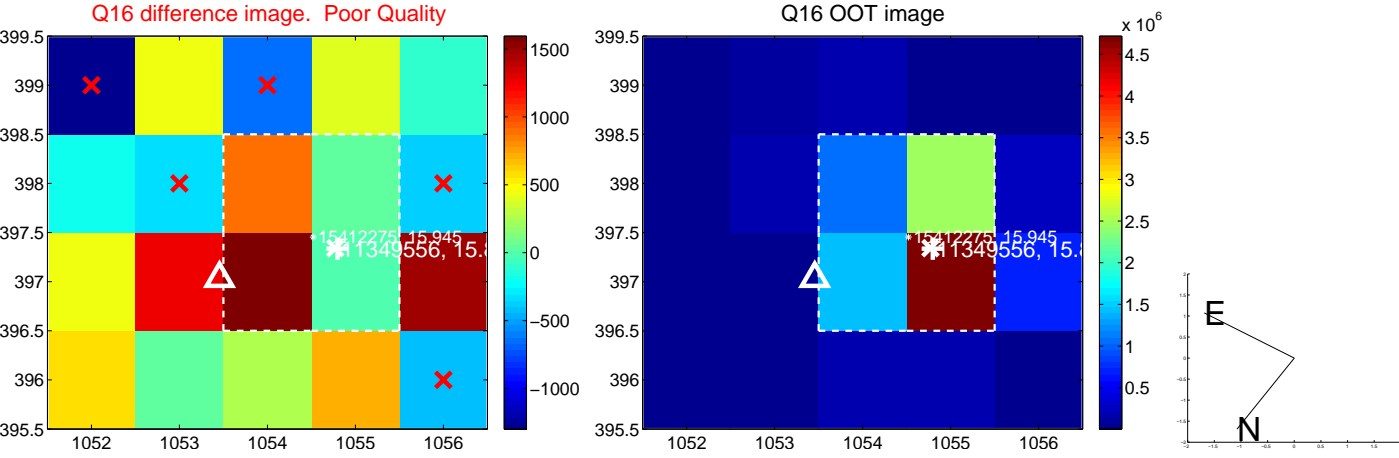
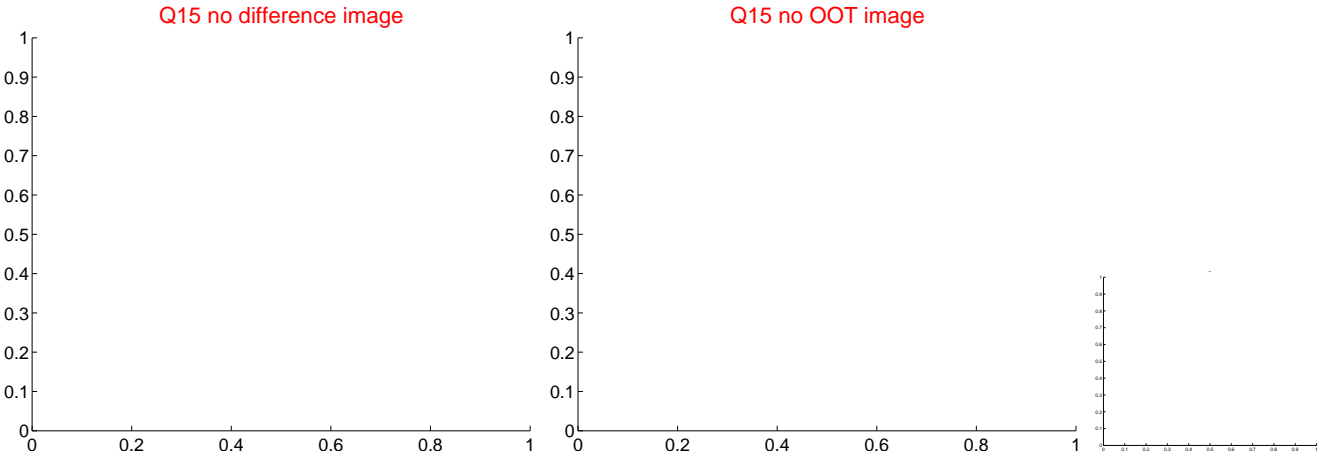
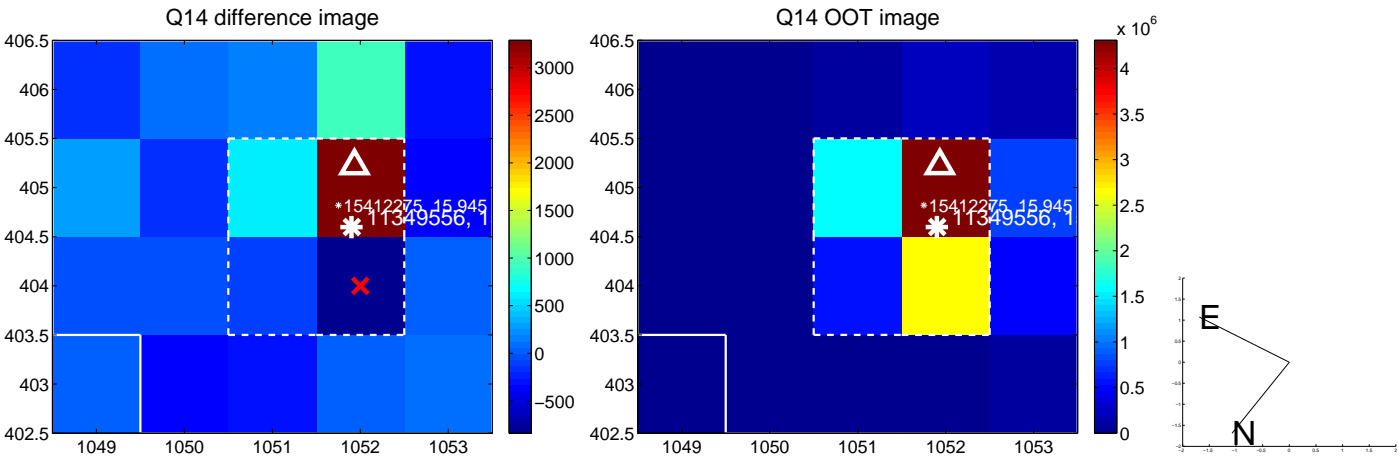
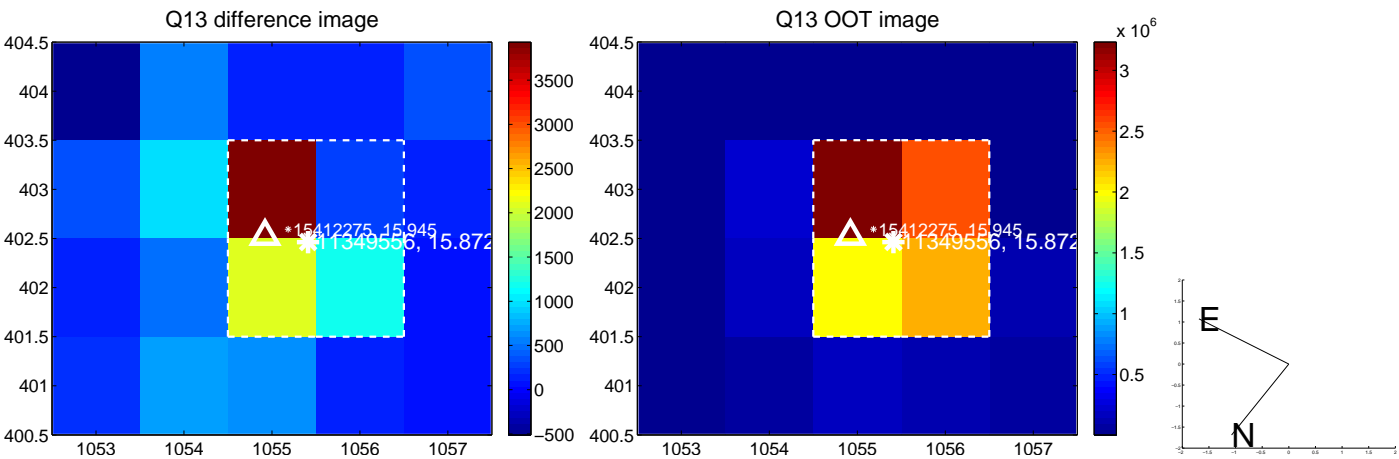
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



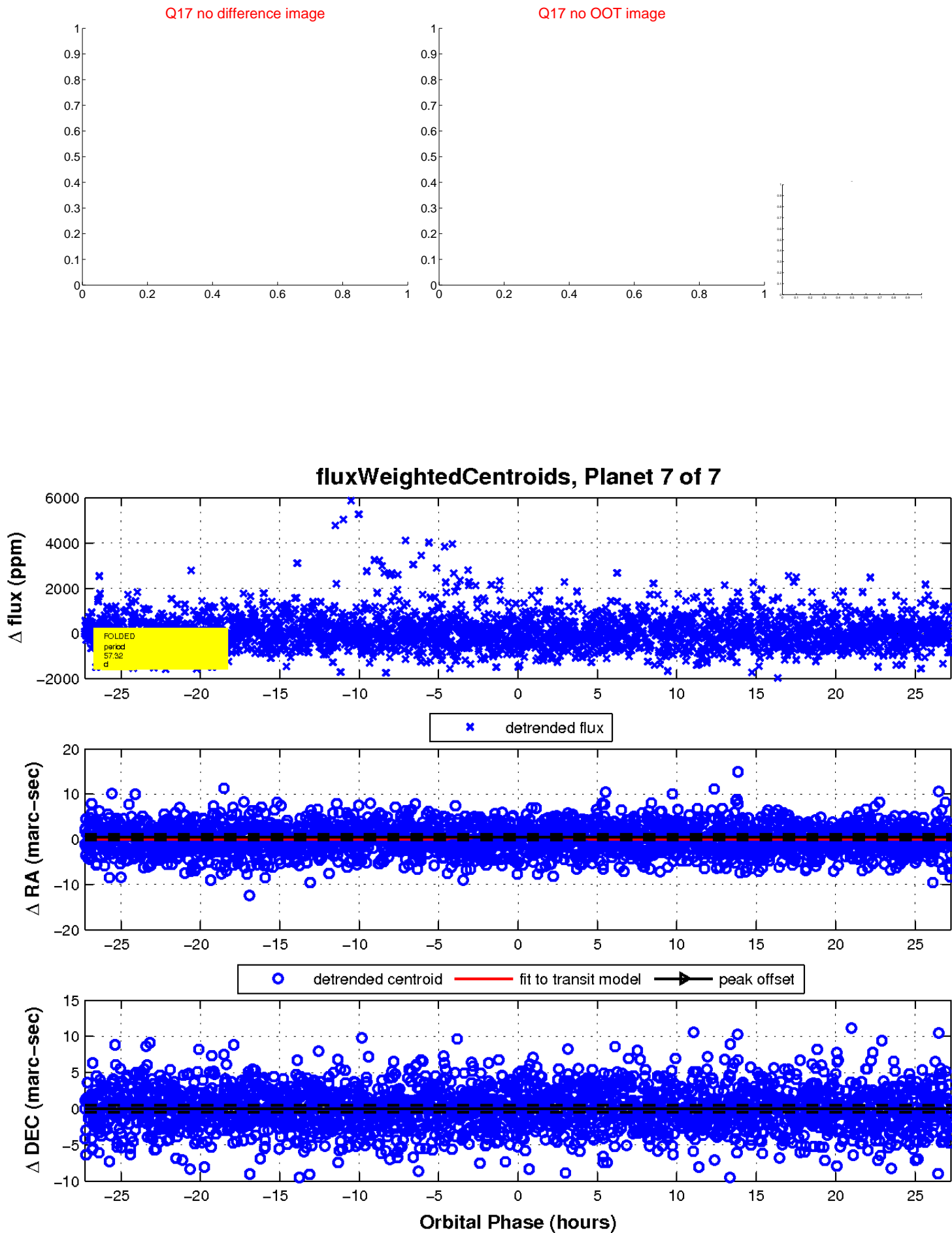
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

