

KIC 001294756

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})
001294756-01	OBS	No	0.795291	131.971363	4.7	2.979	11.8	9.2	3.00	8615	0.75	99292.83
001294756-02	OBS	No	327.663741	259.641741	232.4	11.955	16.0	7.2	3.00	8615	4.89	32.39
001294756-03	OBS	No	527.250441	175.542850	196.8	21.992	10.7	6.0	3.00	8615	4.99	17.18
001294756-04	OBS	No	193.299601	232.194176	162.6	3.125	12.5	8.5	3.00	8615	4.17	65.46
001294756-05	OBS	No	252.752885	302.211336	68.5	23.399	10.8	3.5	3.00	8615	2.84	45.78
001294756-06	OBS	No	400.264020	333.657989	264.4	12.736	10.7	7.0	3.00	8615	5.22	24.80
001294756-07	OBS	No	546.484228	246.698510	353.9	14.817	7.8	8.1	3.00	8615	6.80	16.38
001294756-08	OBS	No	278.183321	251.694824	98.3	10.703	9.5	4.1	3.00	8615	3.46	40.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
001294756-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
001294756-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—INCONSISTENT_TRANS—CENT_SATURATED
001294756-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_SATURATED
001294756-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—CENT_SATURATED
001294756-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
001294756-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_SATURATED
001294756-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—INCONSISTENT_TRANS—CENT_SATURATED
001294756-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_SATURATED

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

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

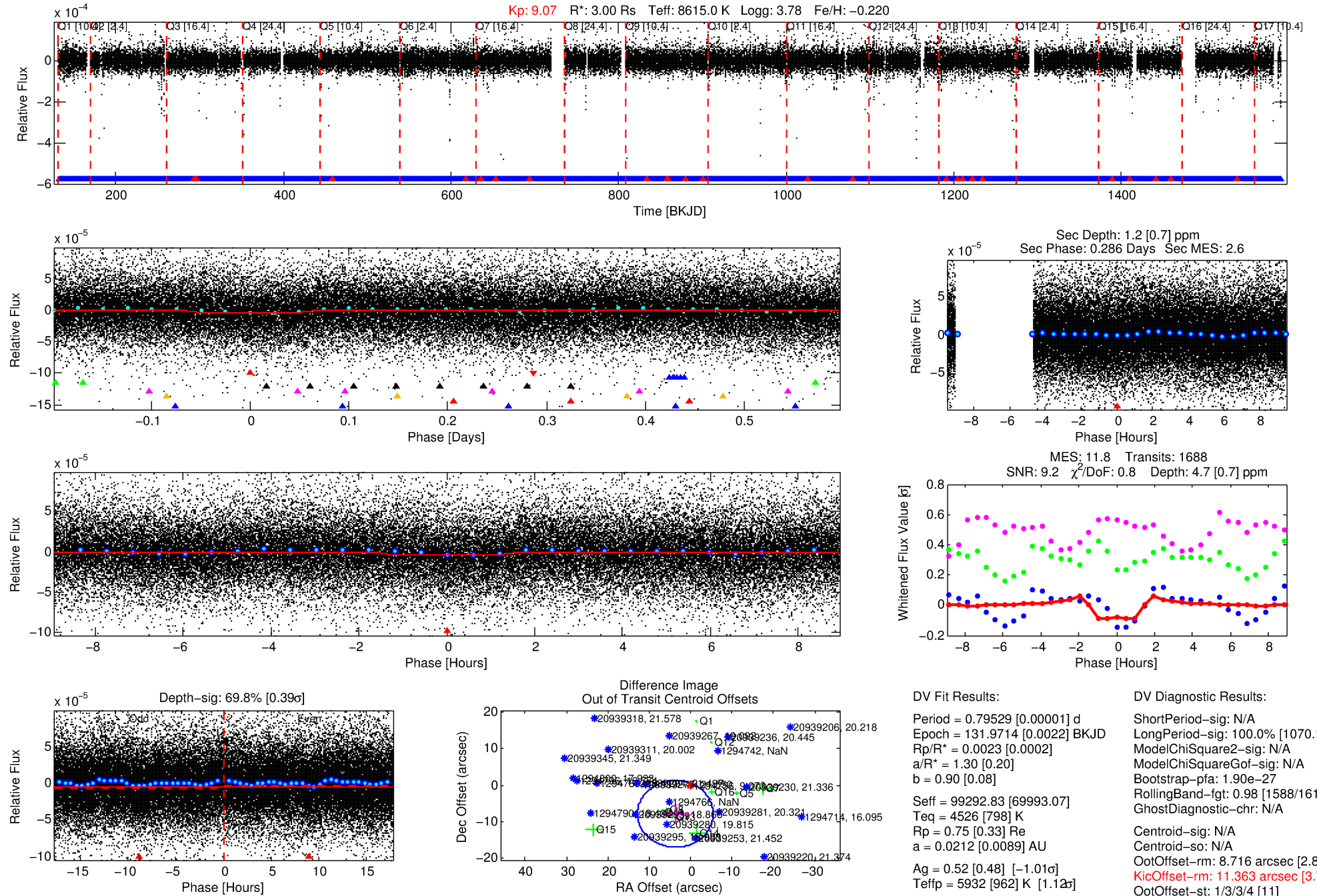
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 001294756-01

No Significant Match Found

DV One-Page Summary

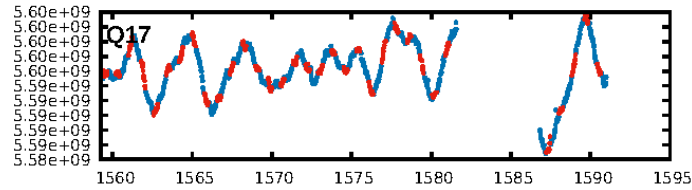
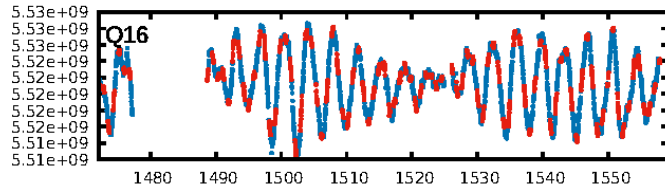
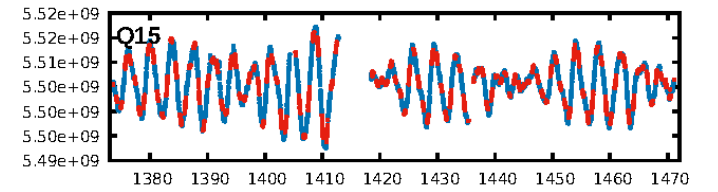
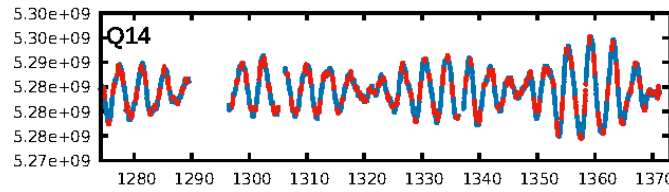
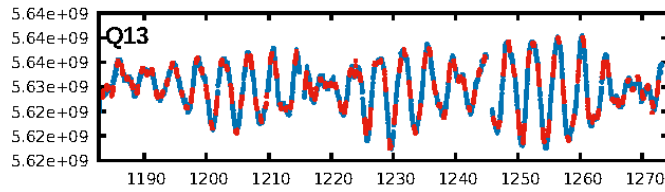
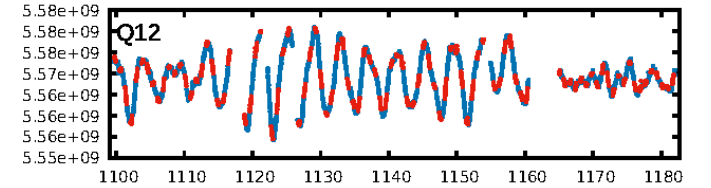
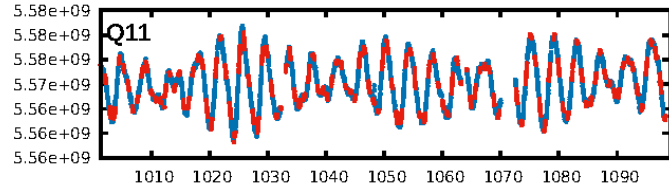
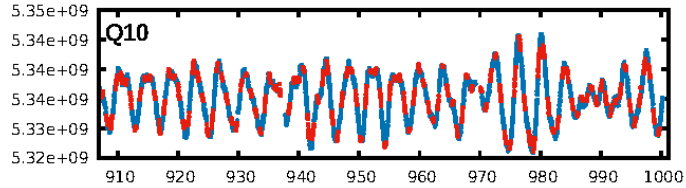
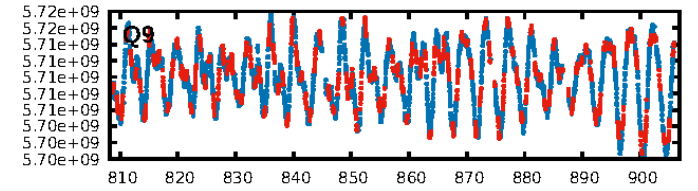
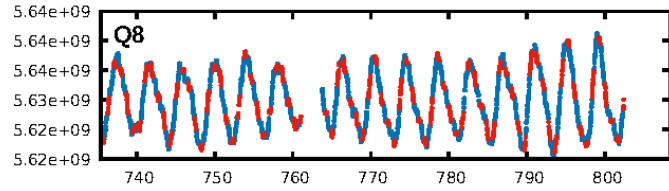
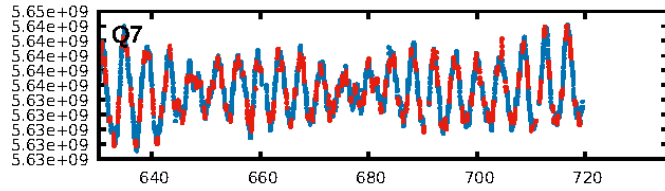
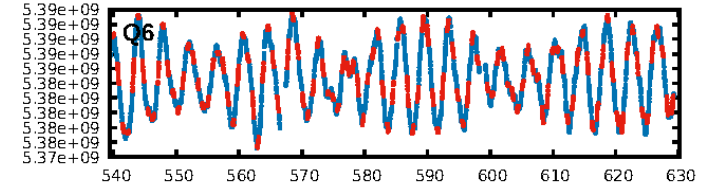
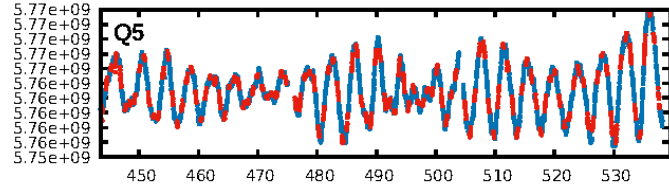
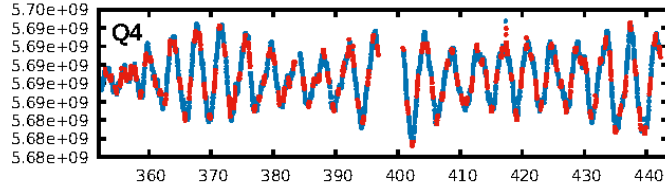
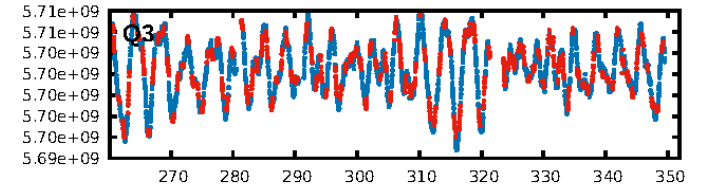
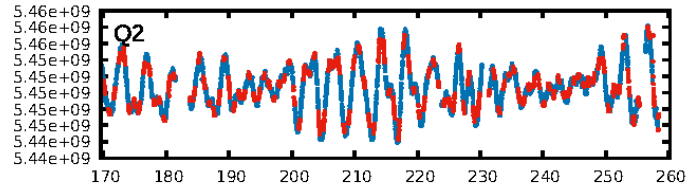
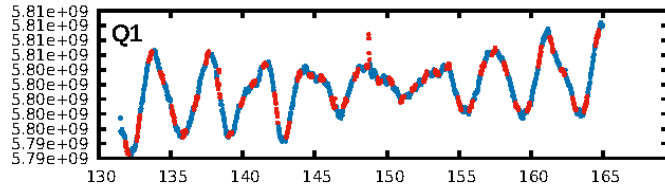
KIC: 1294756 Candidate: 1 of 8 Period: 0.795 d



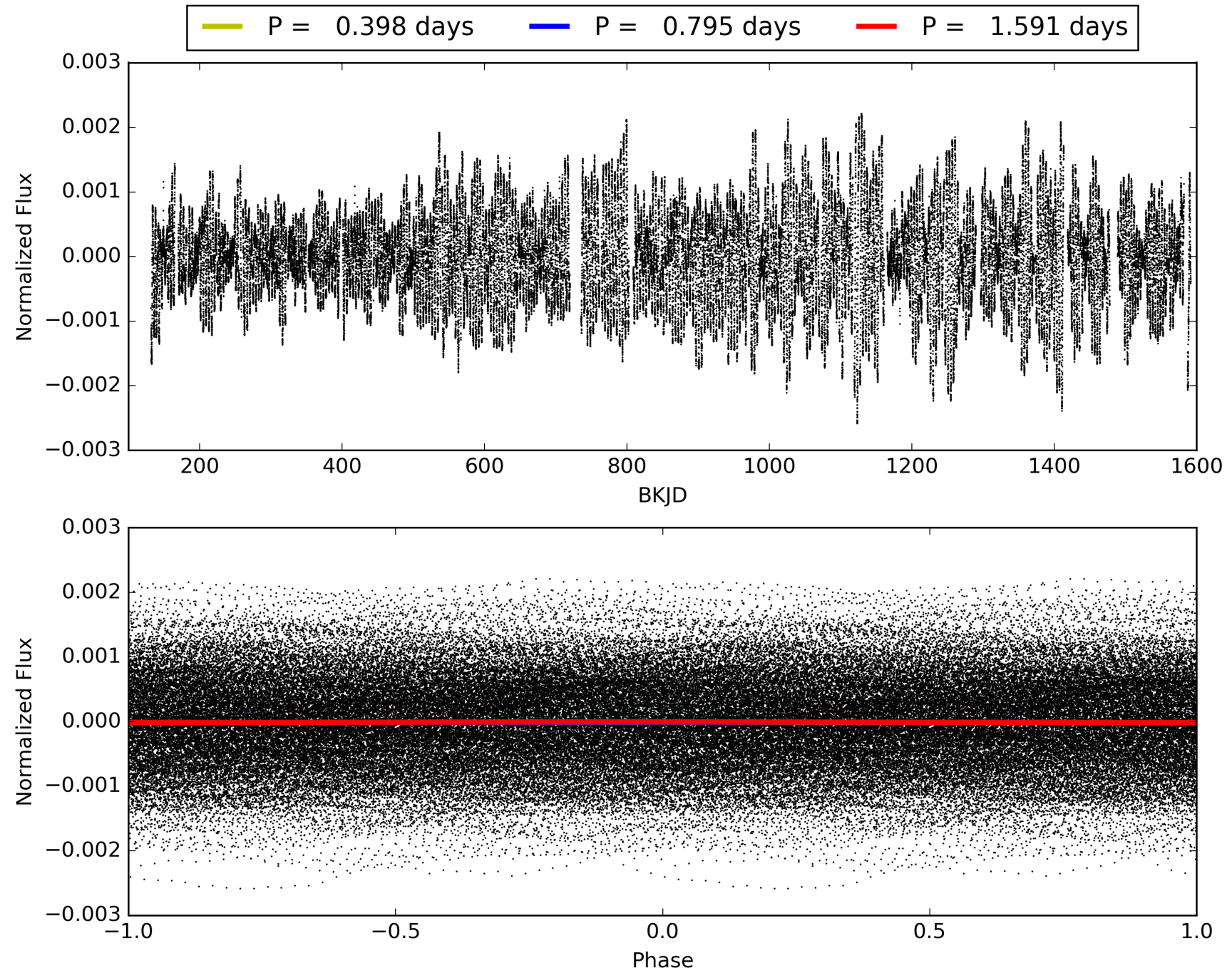
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 001294756-01, PDC Light Curves

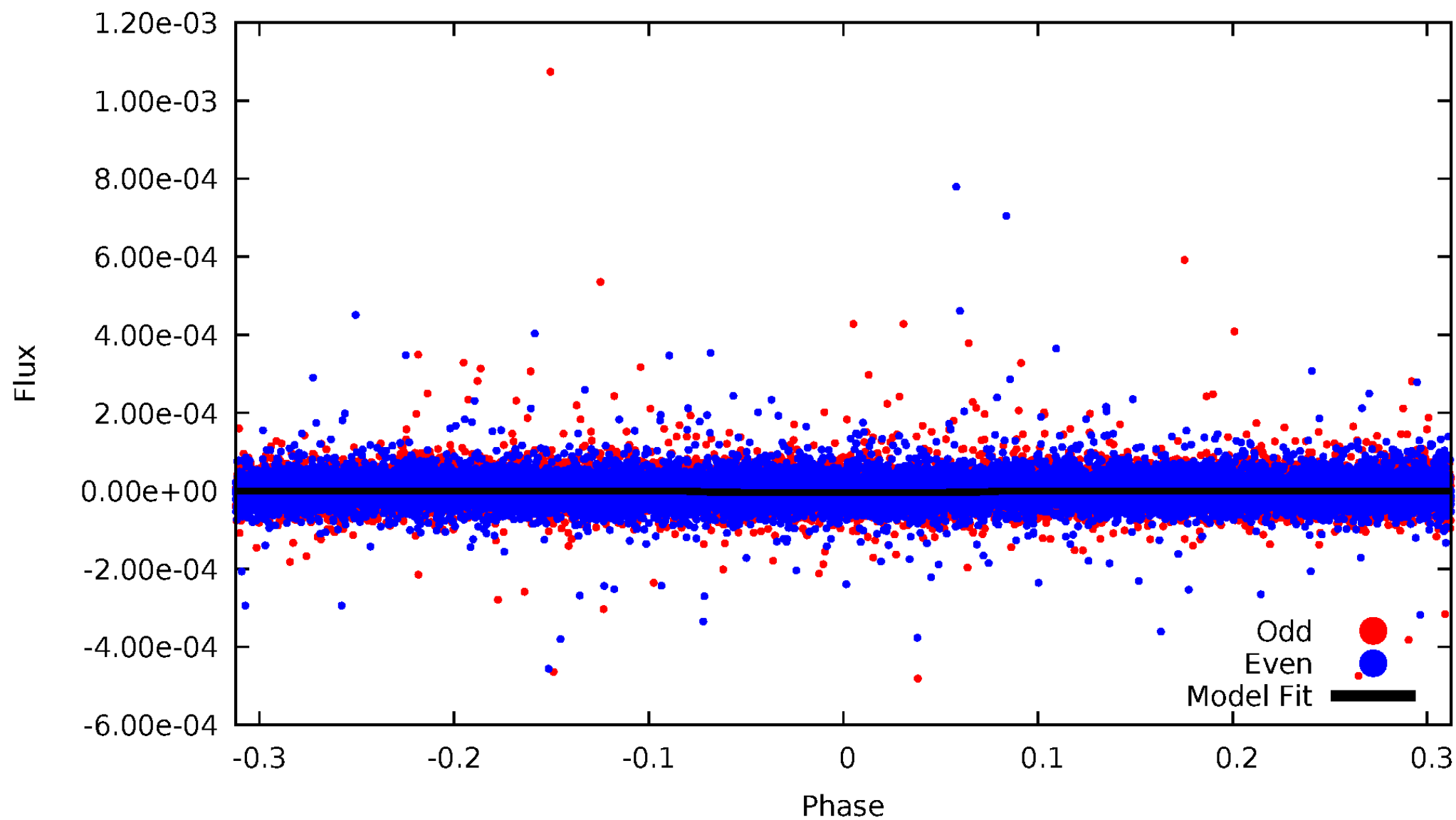


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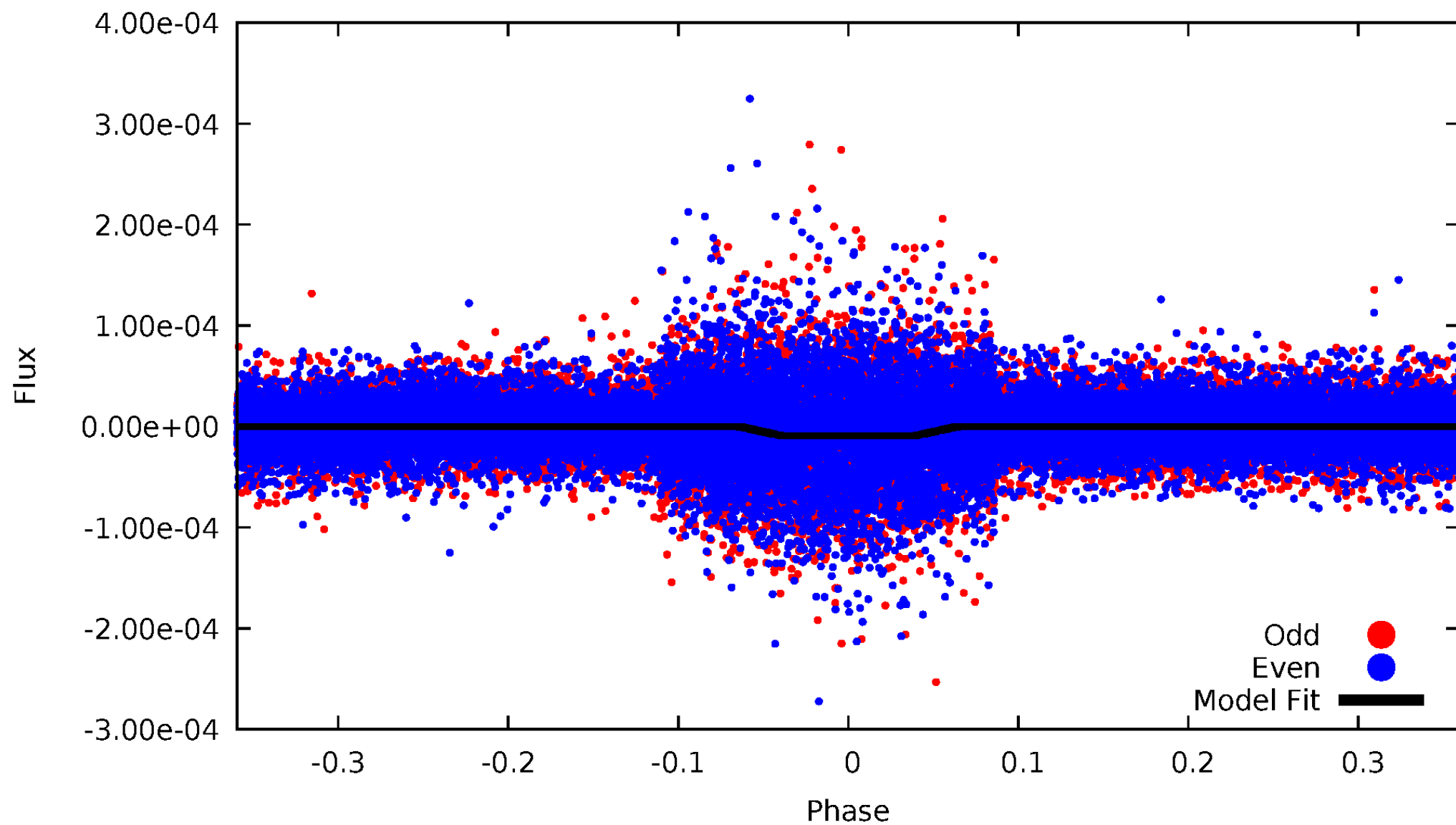
DV Odd/Even

TCE 001294756-01



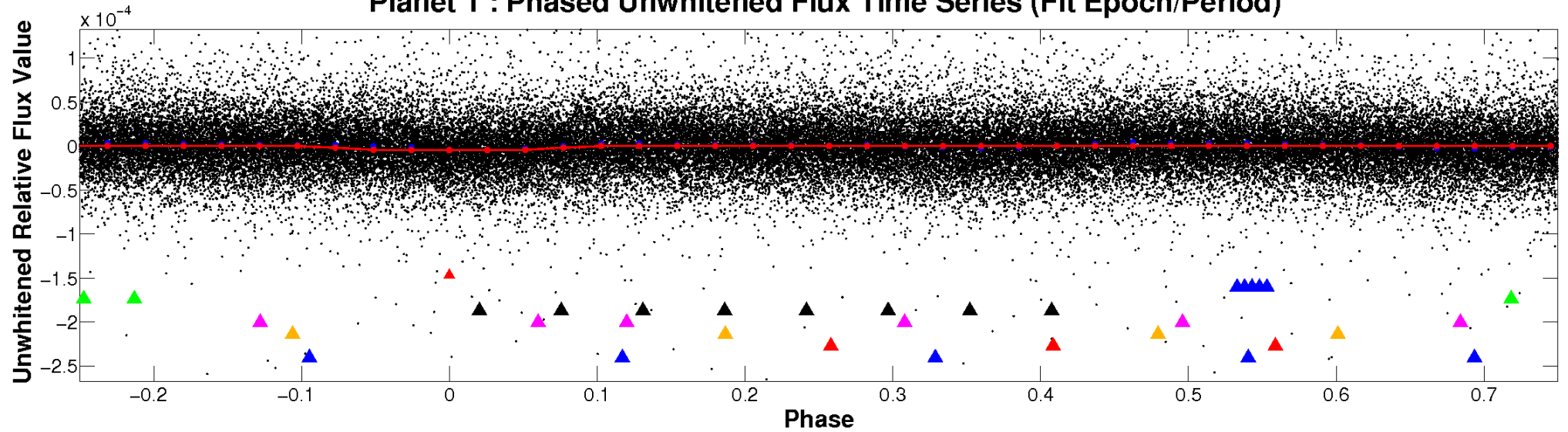
ALT Odd/Even

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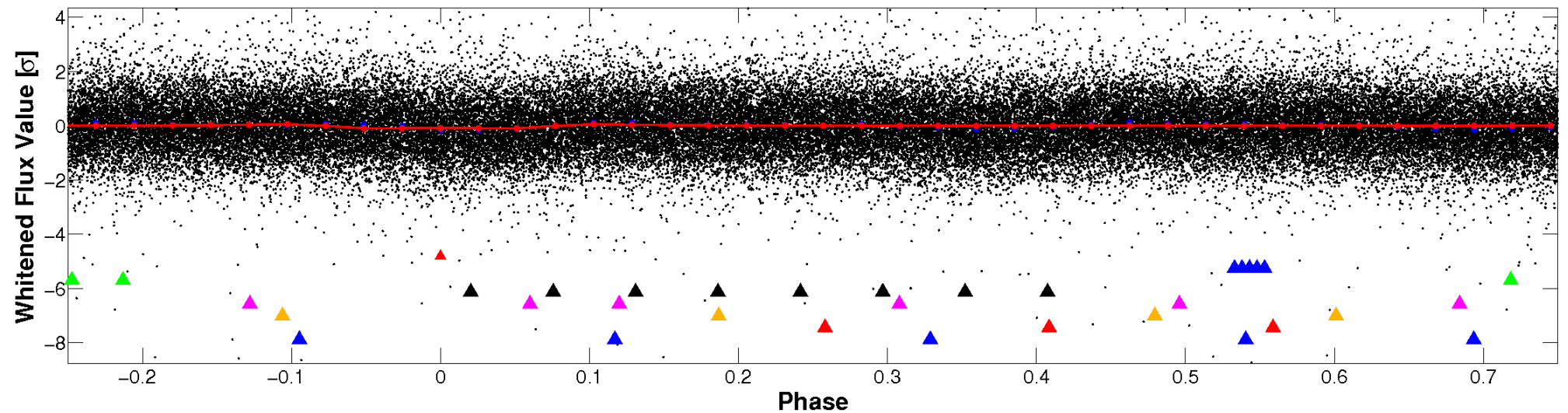


Non-Whitened Vs. Whitened Light Curve

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

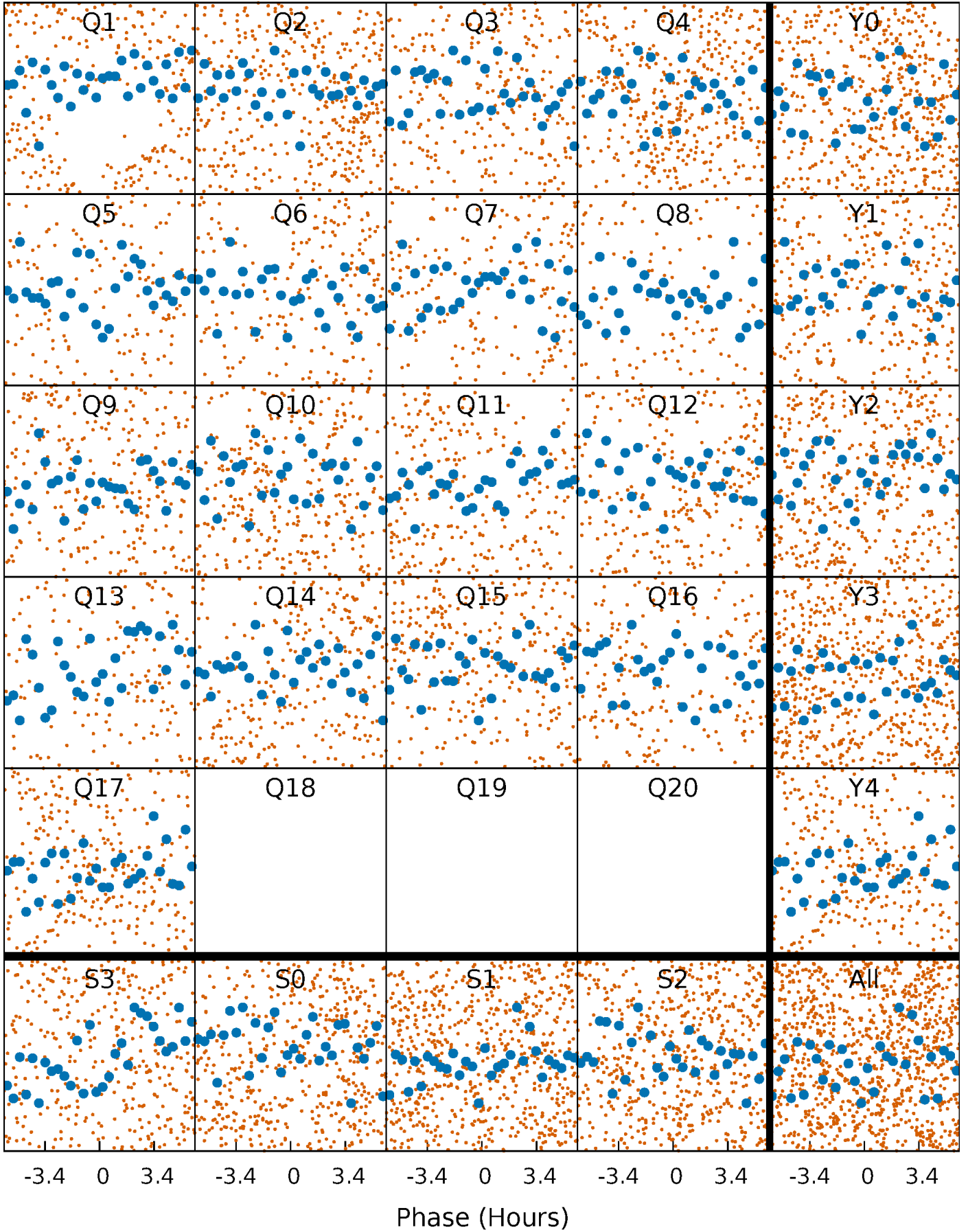


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



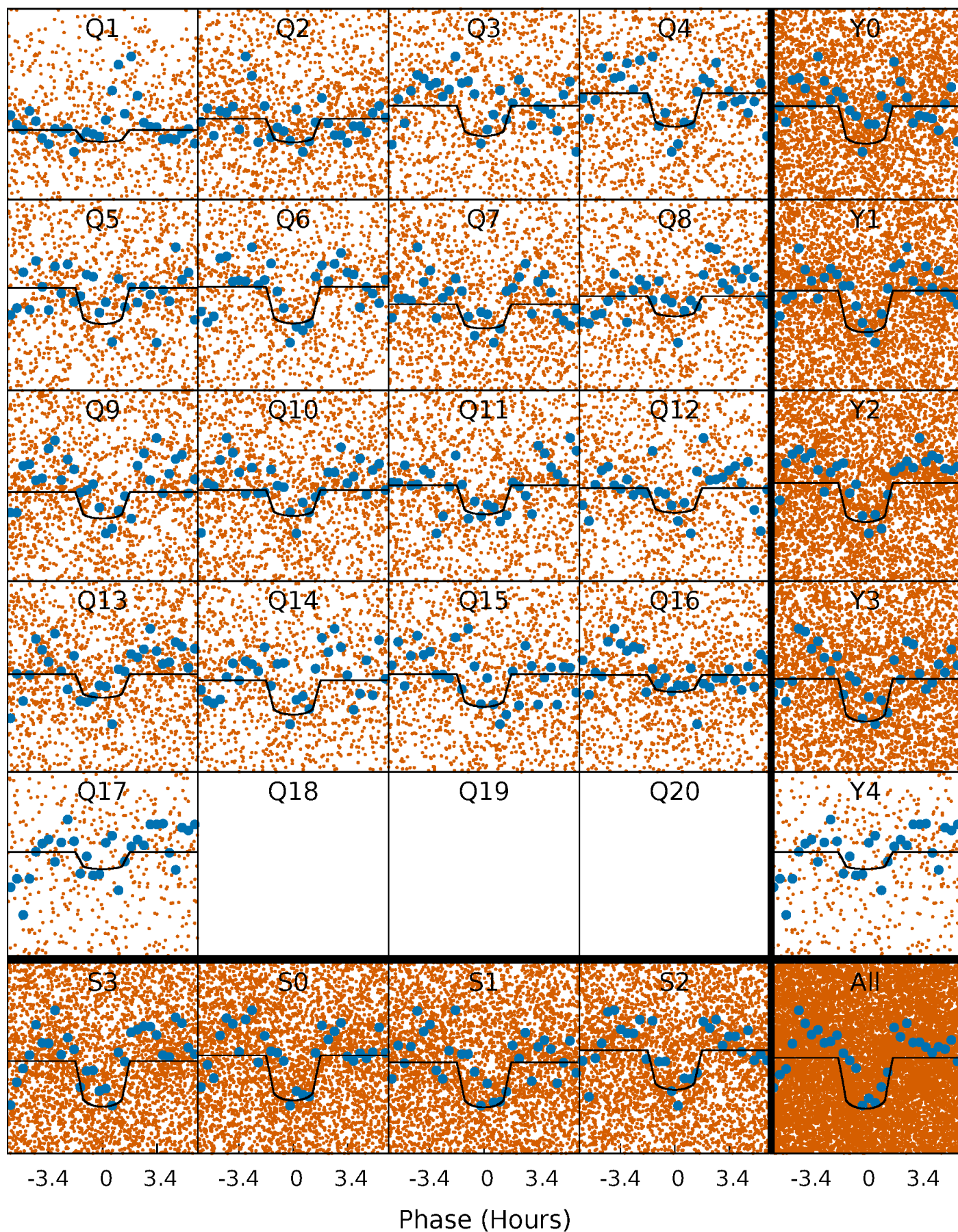
PDC Quarter-Phased Transit Curves

TCE 001294756-01 P= 0.795291 Days $T_0=131.971363$ (BKJD)



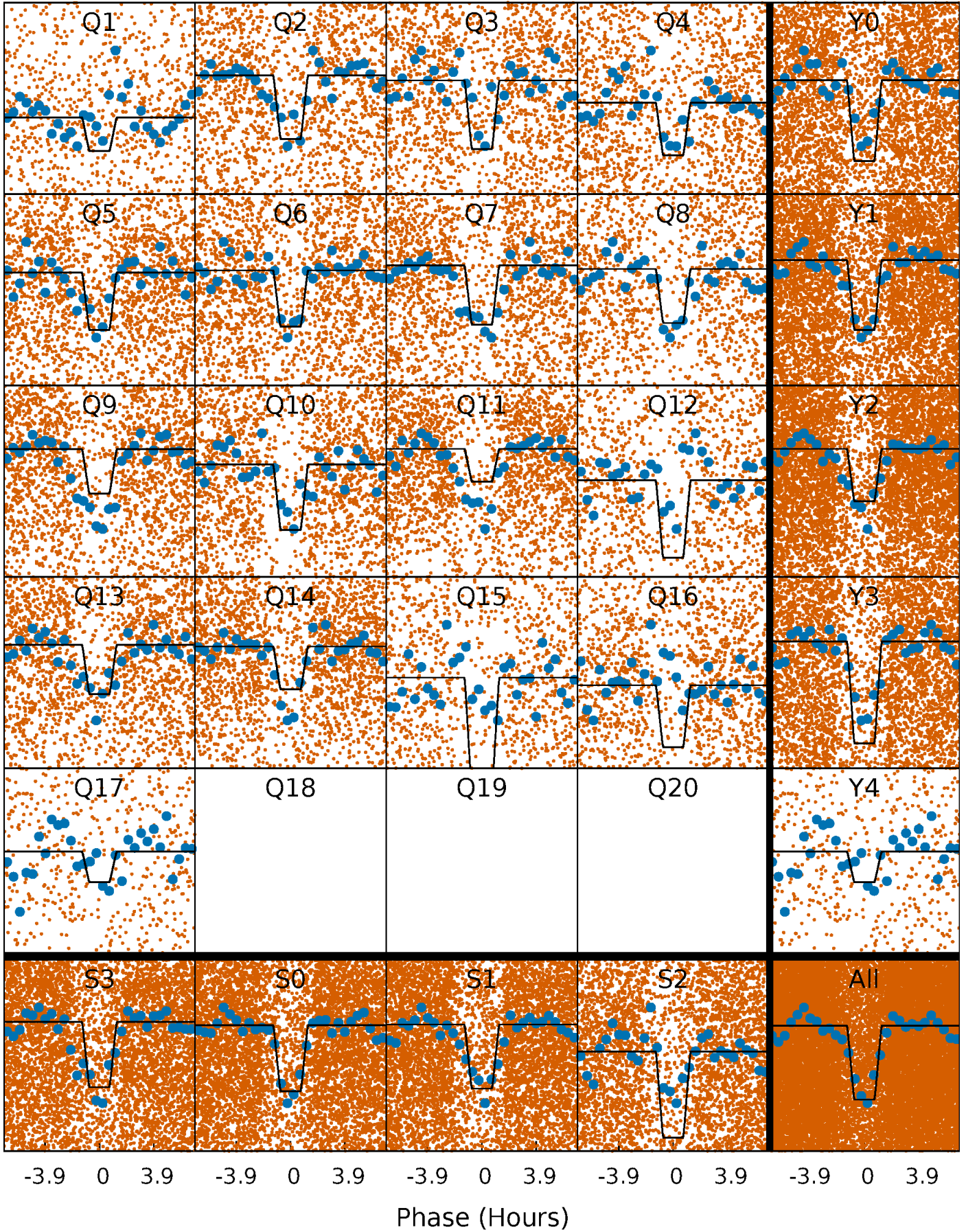
DV Quarter-Phased Transit Curves

TCE 001294756-01 P= 0.795291 Days $T_0=131.971363$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

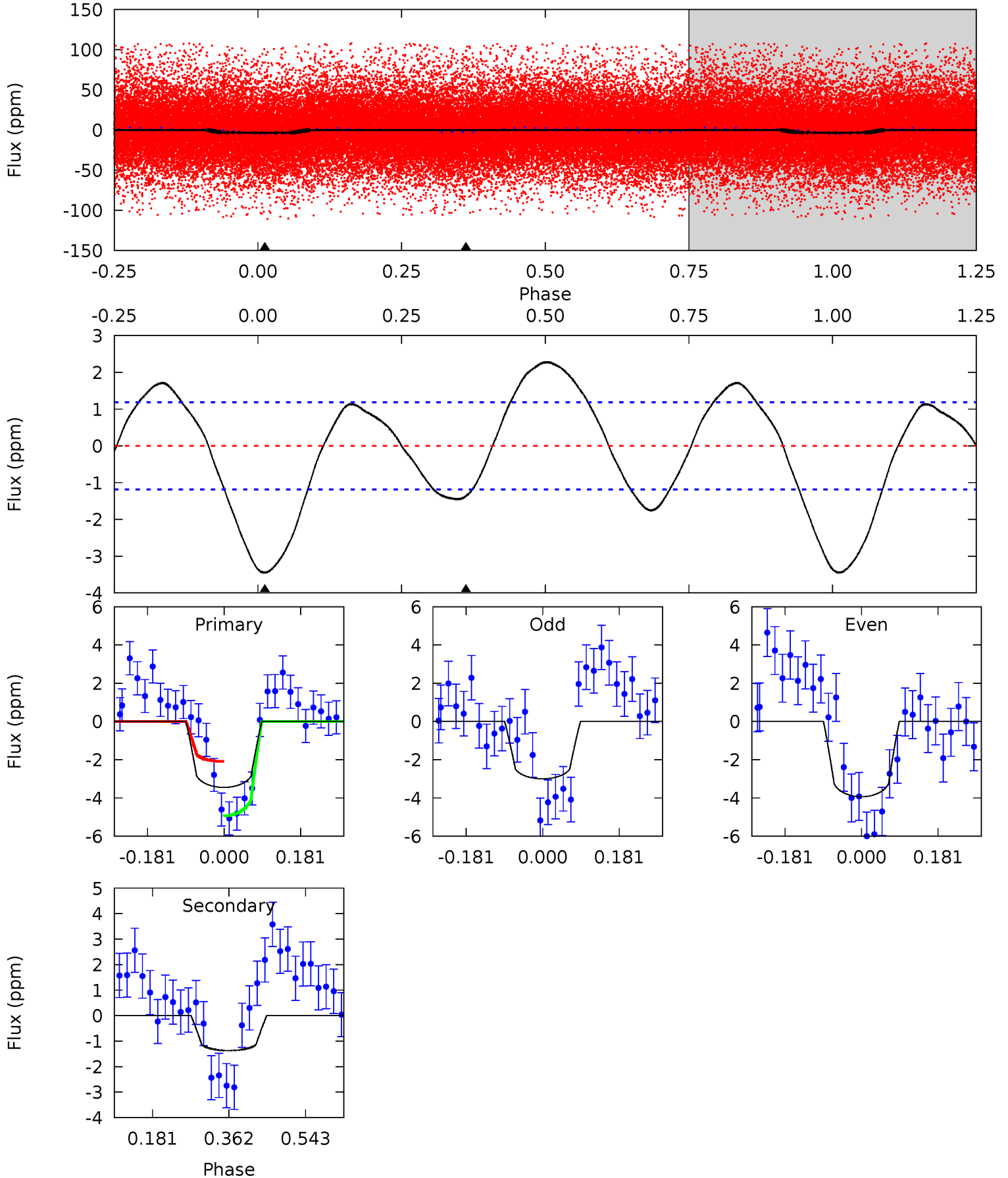
TCE 001294756-01 P= 0.795311 Days $T_0=131.972104$ (BKJD)



DV Model-Shift Uniqueness Test

001294756-01, P = 0.795291 Days, E = 131.176072 Days

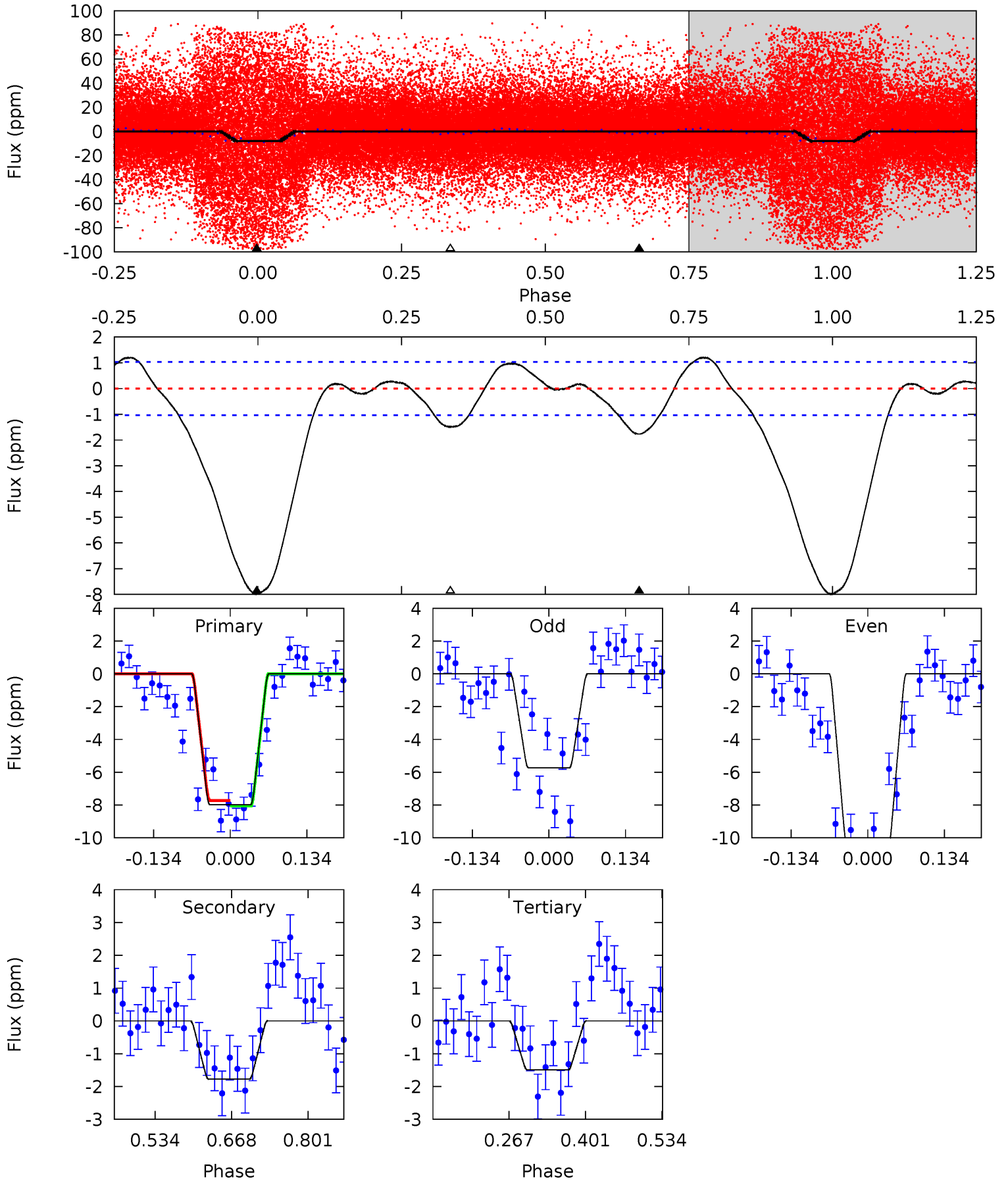
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.9	5.13	0	0	4.44	1.34	4.45	12.9	12.9	5.13	5.13	1.76	0.83	0.40	5.24



Alt Model-Shift Uniqueness Test

001294756-01, P = 0.795311 Days, E = 131.176793 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
34.8	7.72	6.49	0	4.50	1.50	2.92	28.3	34.8	1.22	7.72	10.4	1.29	0.13	0.72



Stellar Parameters For KIC 001294756

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	ρ_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8615^{+238}_{-374}	$3.784^{+0.405}_{-0.135}$	$-0.220^{+0.400}_{-0.350}$	$3.003^{+0.851}_{-1.276}$	$2.002^{+0.411}_{-0.411}$	$0.104^{+0.376}_{-0.047}$
	+3%/-4%	+11%/-4%	+182%/-159%	+28%/-42%	+21%/-21%	+361%/-45%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 001294756-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1 ± 0	$0.72^{+0.16}_{-0.18}$	6138^{+515}_{-768}	5105^{+591}_{-764}	$0.653^{+0.474}_{-0.221}$
Alt.	-2 ± 0	$0.97^{+0.19}_{-0.23}$	6125^{+508}_{-784}	4409^{+563}_{-1005}	$0.475^{+0.327}_{-0.146}$

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

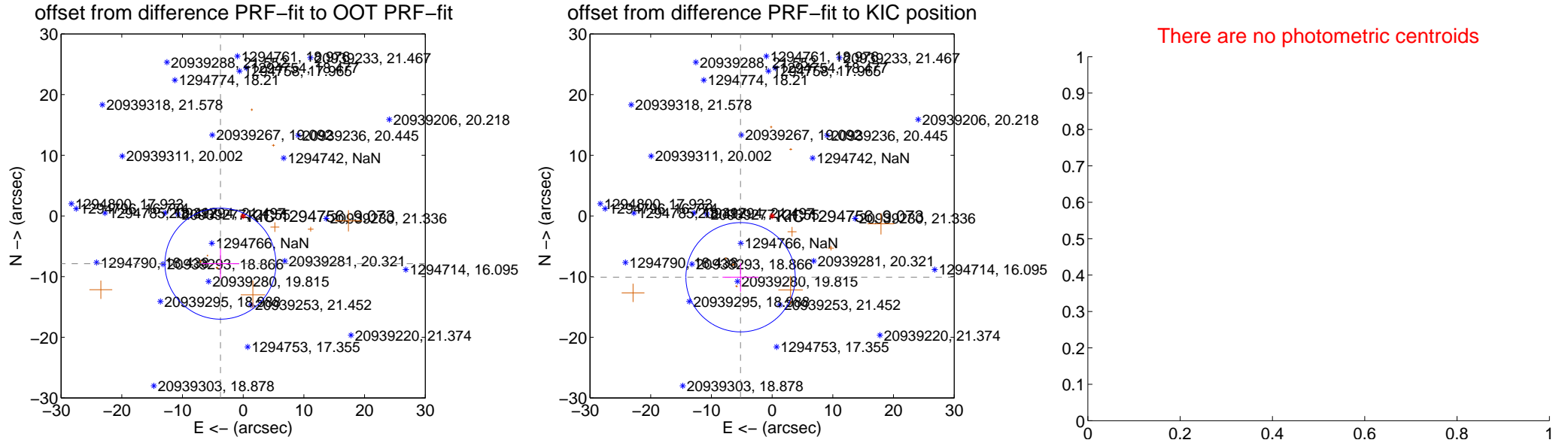
DV Centroid Data

Supplemental centroid analysis for 001294756-01. **Kepler magnitude: 9.07.** Transit SNR 9.25

There are 0 quarters with good PRF difference image offsets

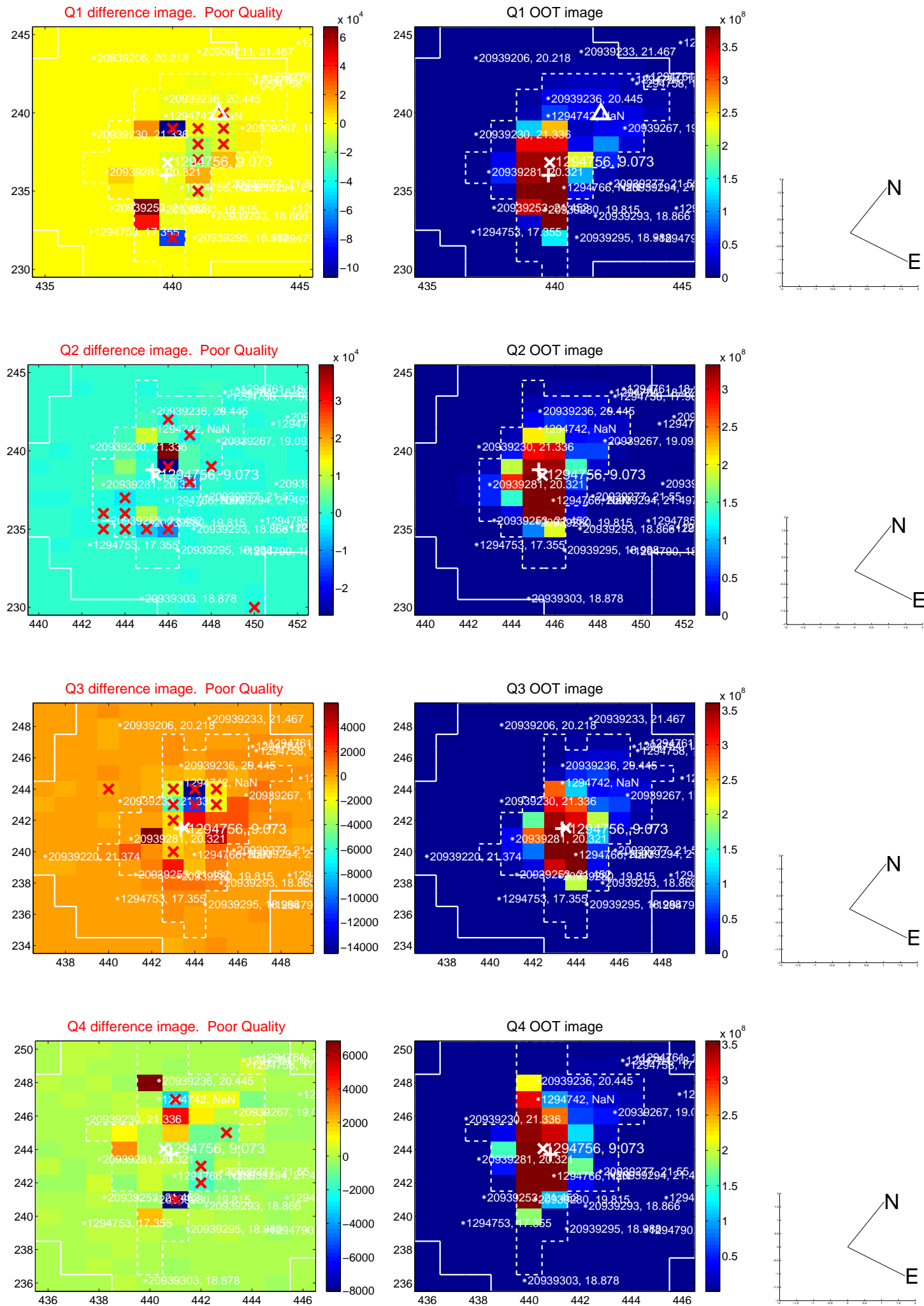
The OOT PRF centroid is offset from the target star catalog position by about 2.09 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.716 ± 3.049	2.86	3.747 ± 3.083	-7.869 ± 2.504
PRF-fit source offset from KIC position	11.363 ± 3.002	3.79	5.196 ± 2.974	-10.105 ± 2.388
photometric centroid source offset	—	—	—	—

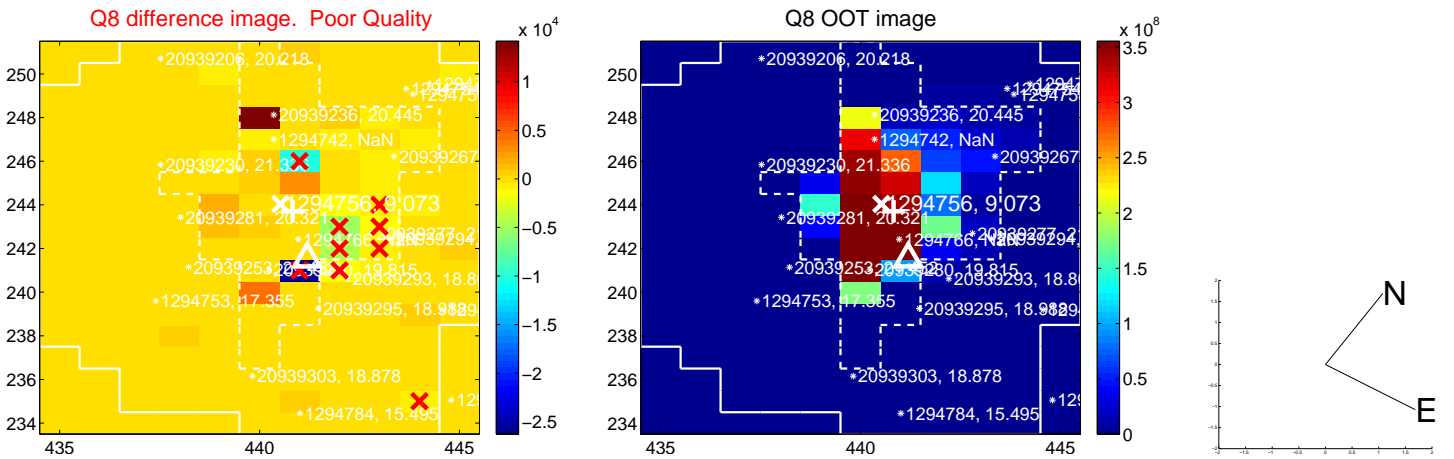
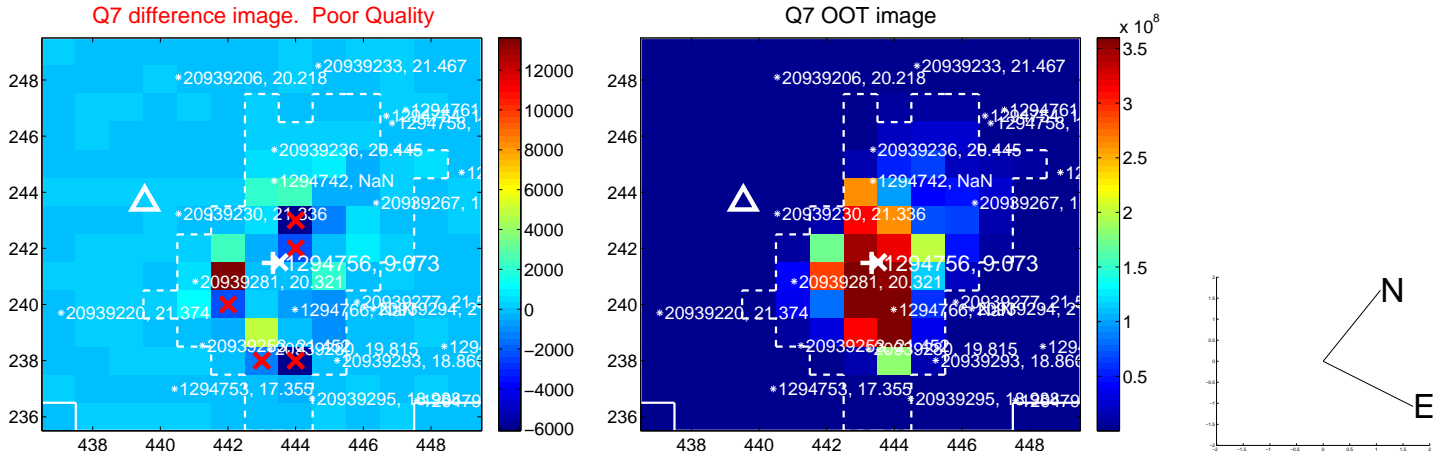
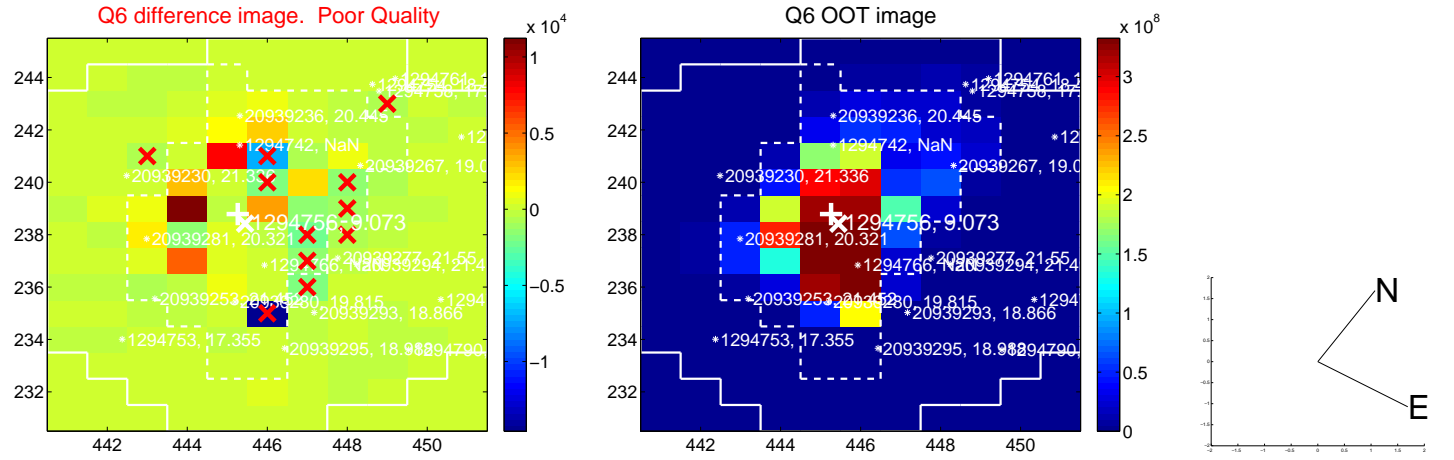
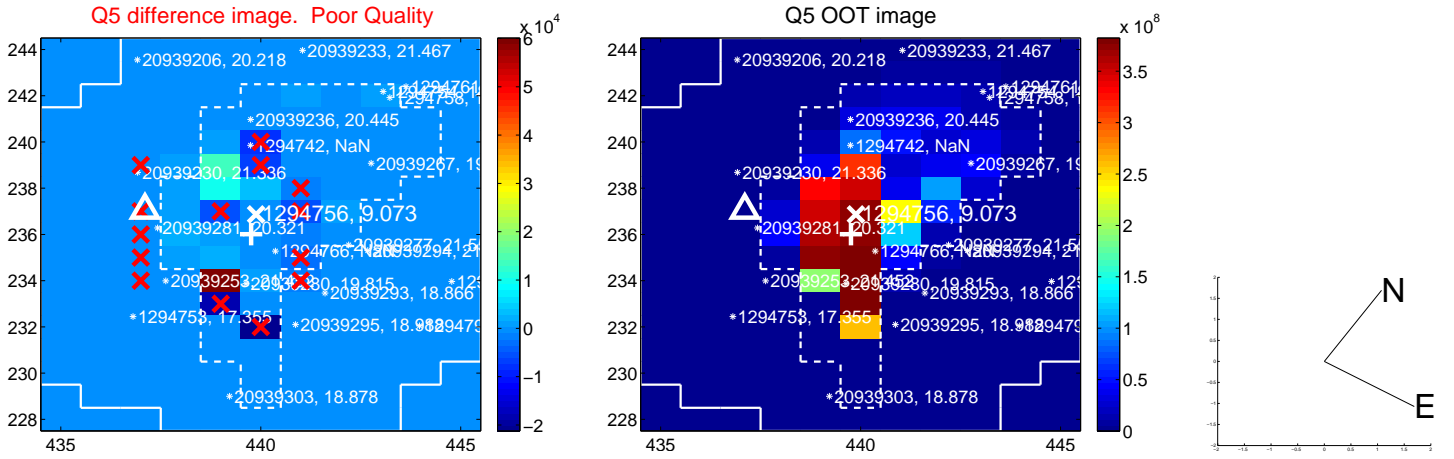


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

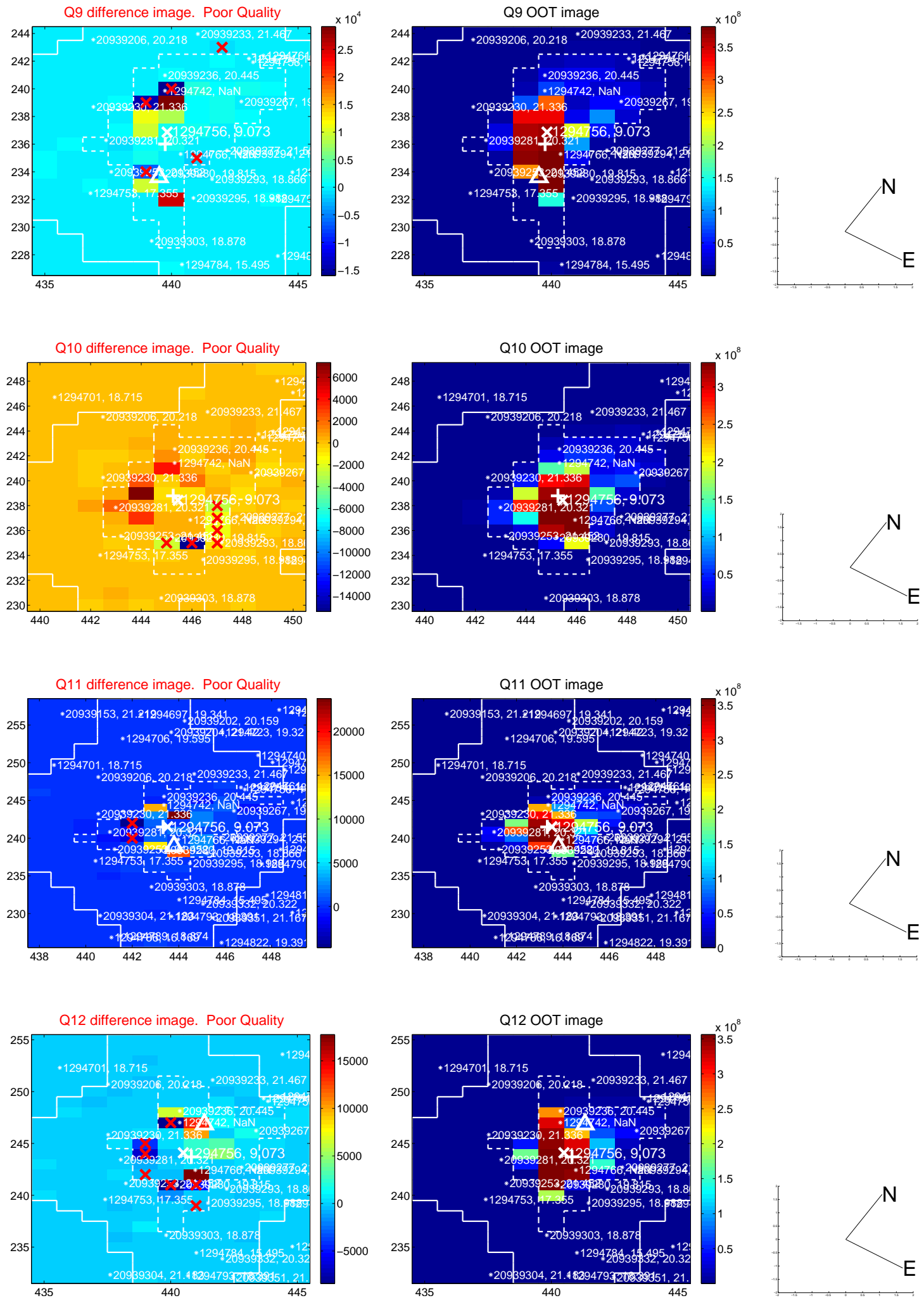
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



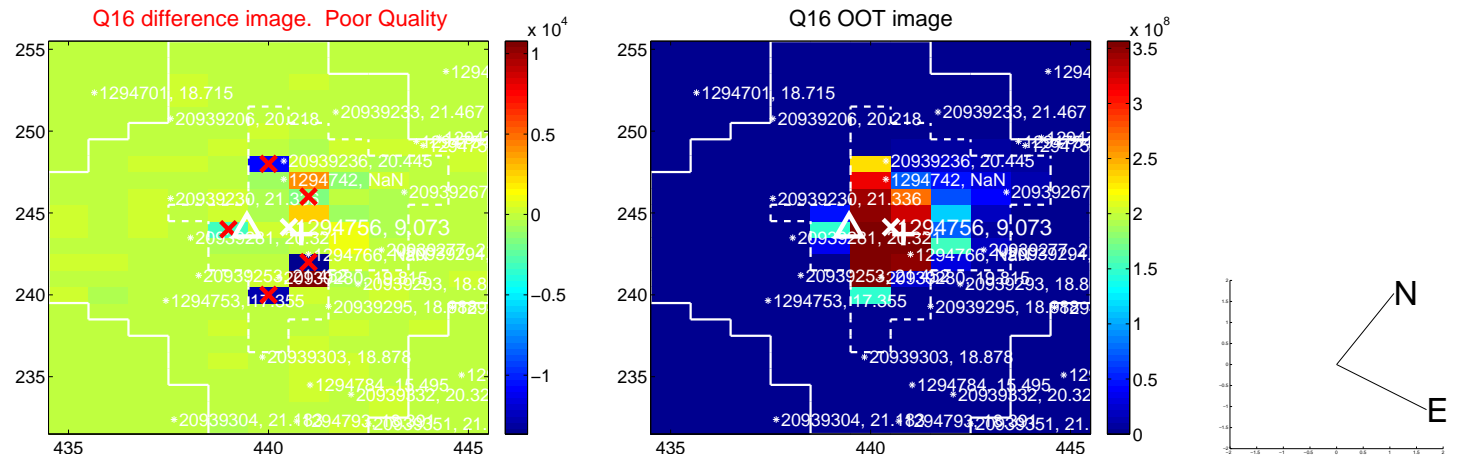
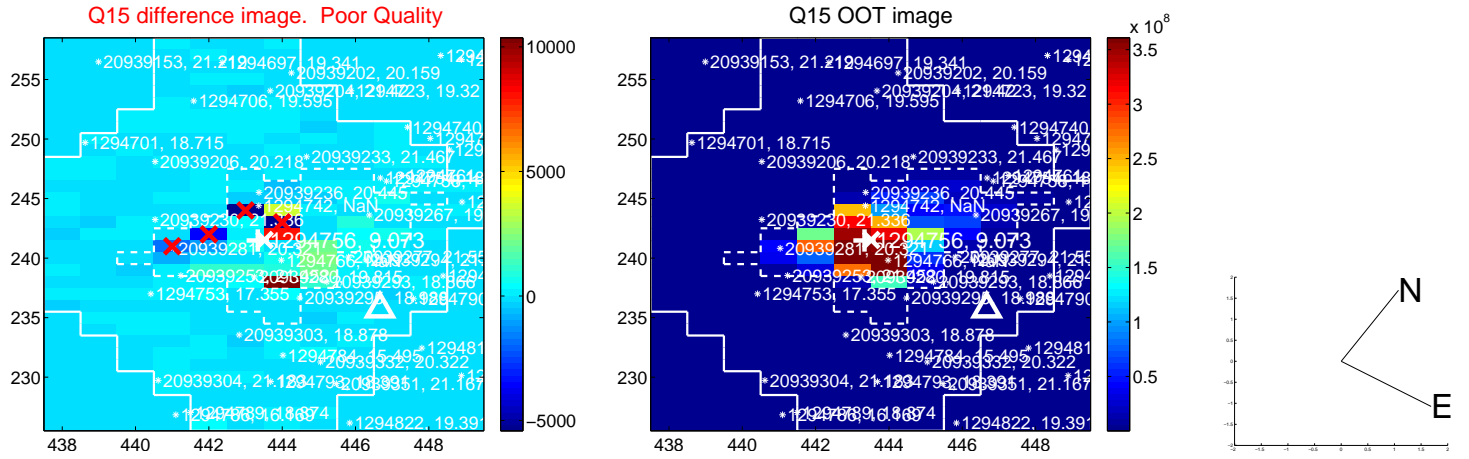
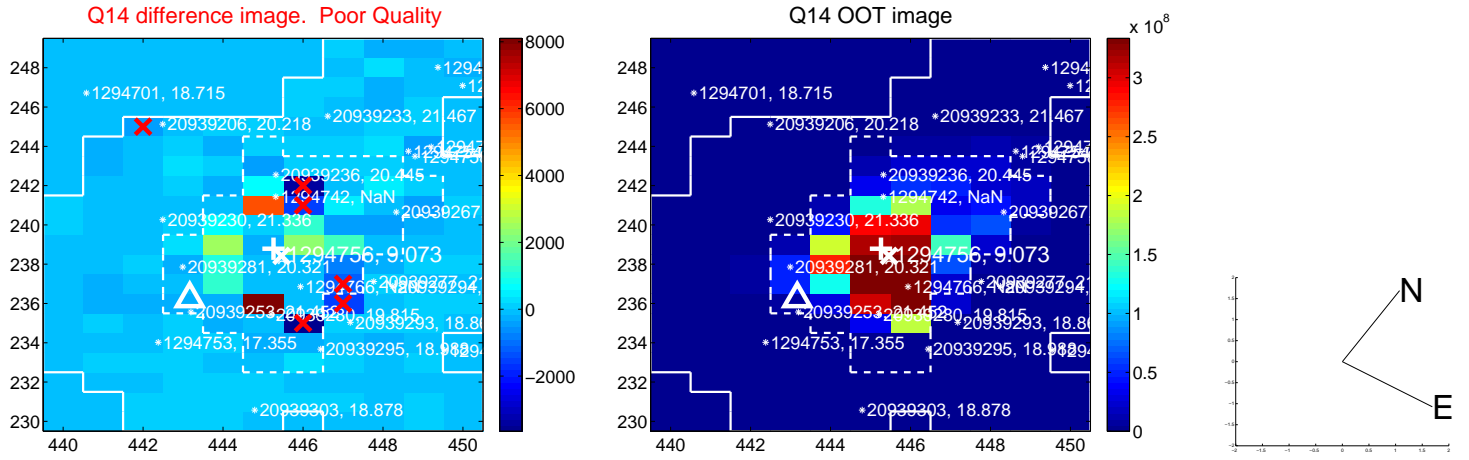
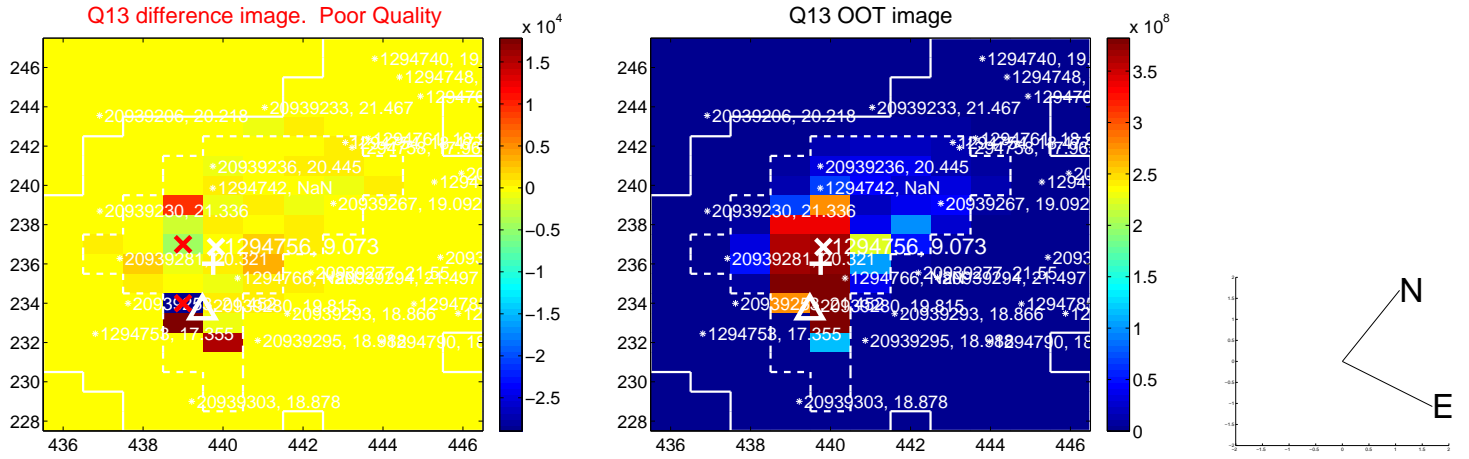
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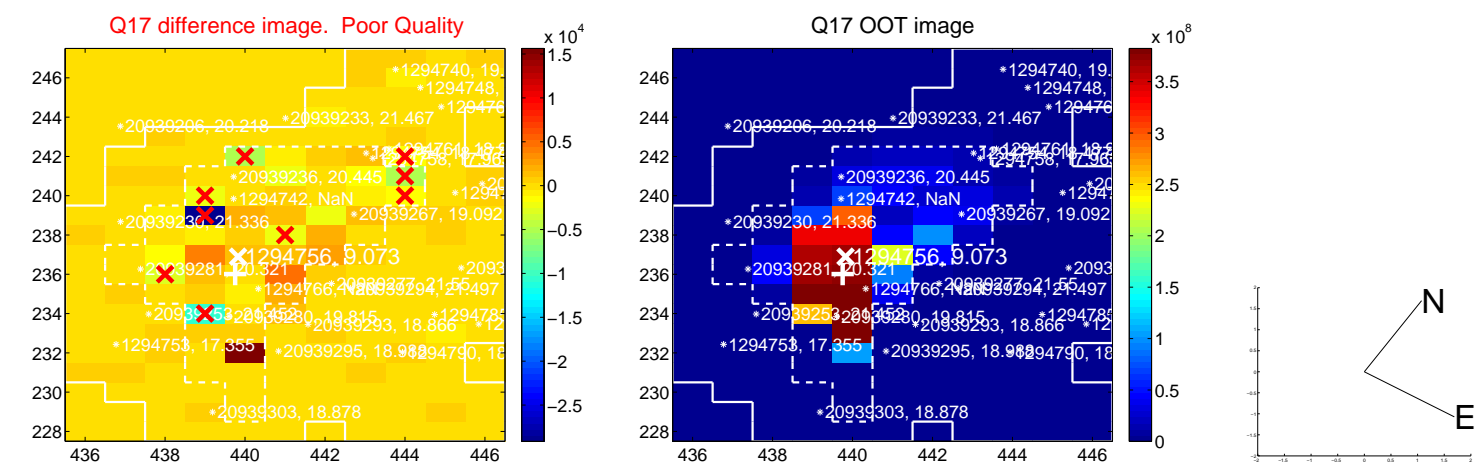
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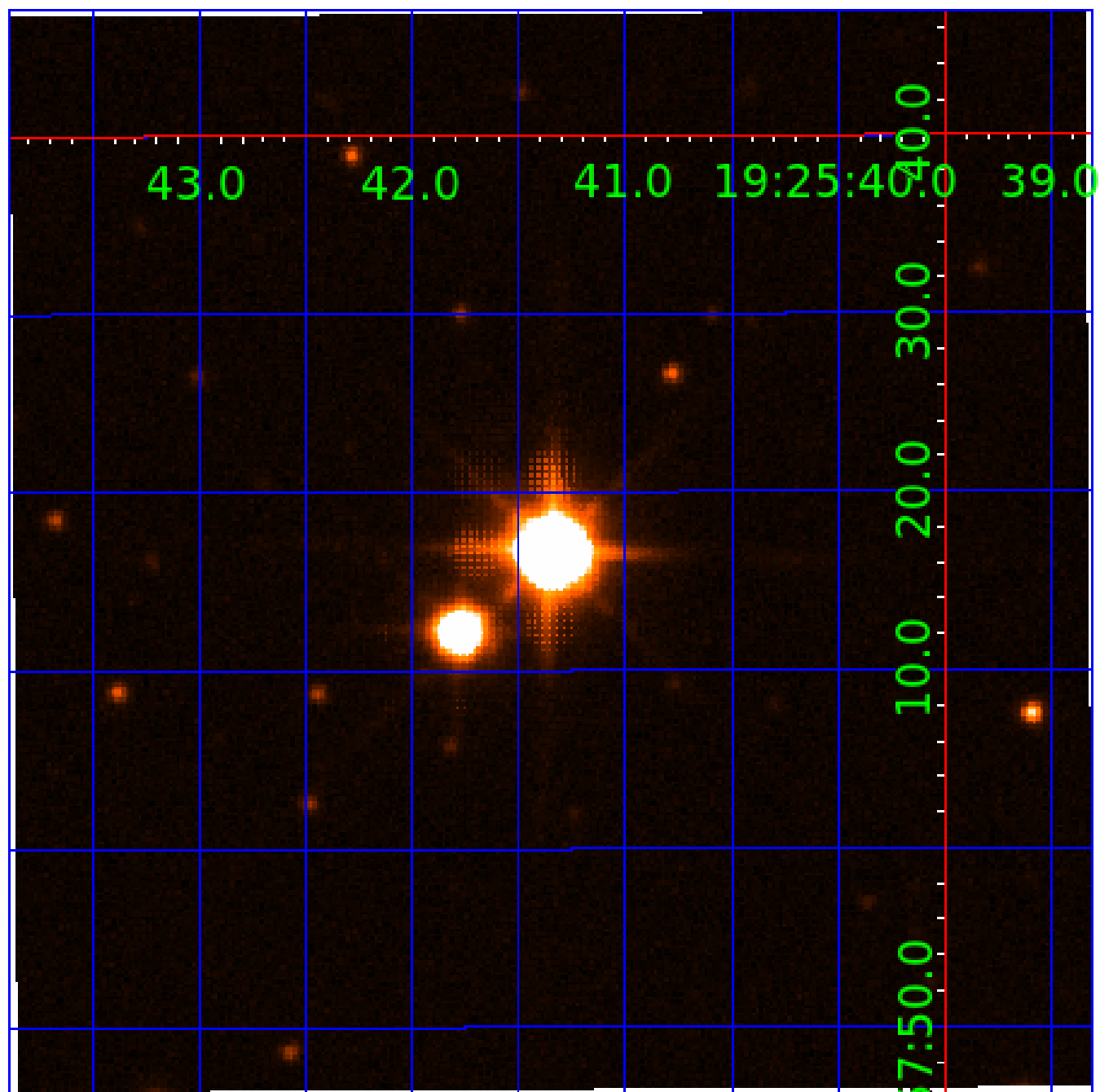
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folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 001294756

Q1-17 DR25 TCE Parameters

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001294756-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_SATURATED
001294756-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—CENT_SATURATED
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001294756-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—INCONSISTENT_TRANS—CENT_SATURATED
001294756-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_SATURATED

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

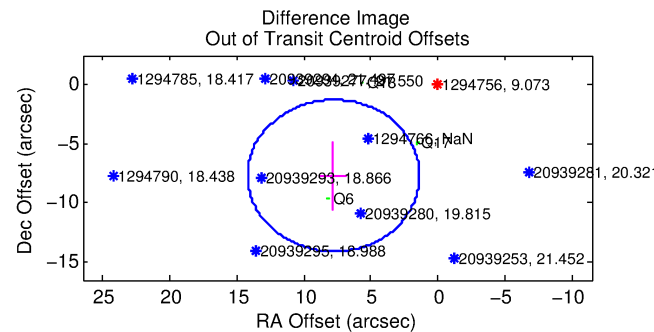
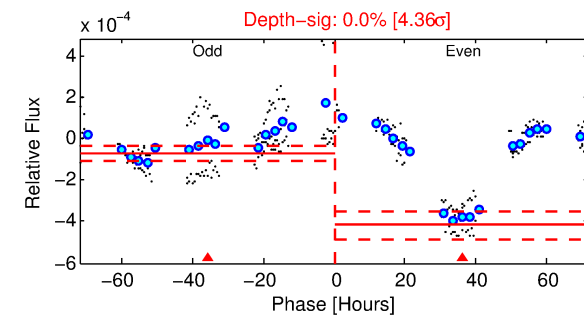
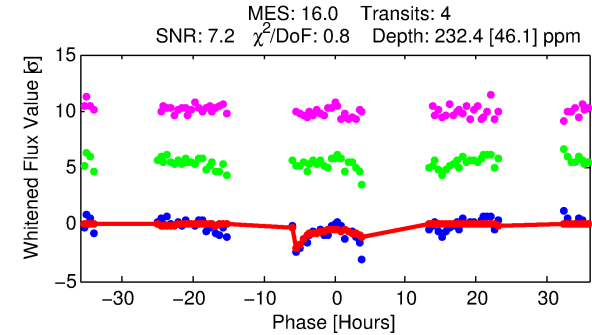
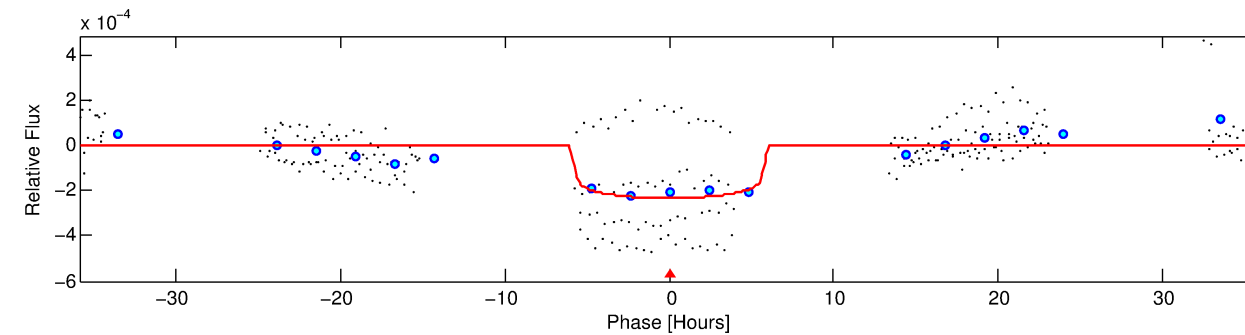
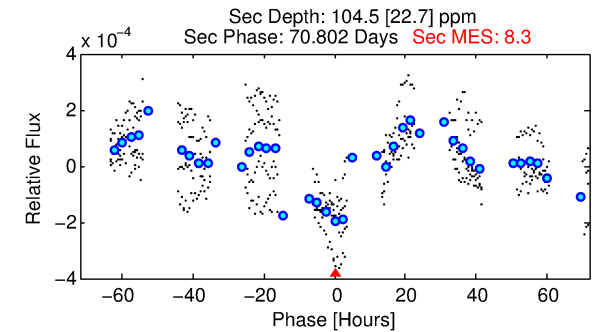
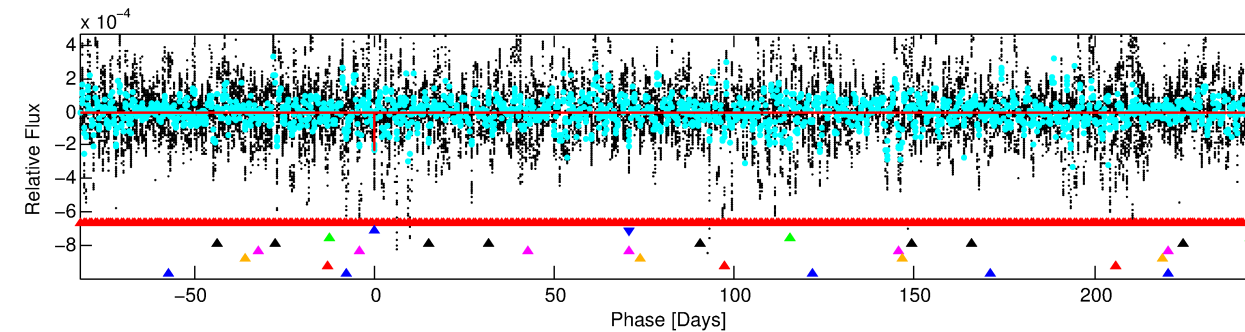
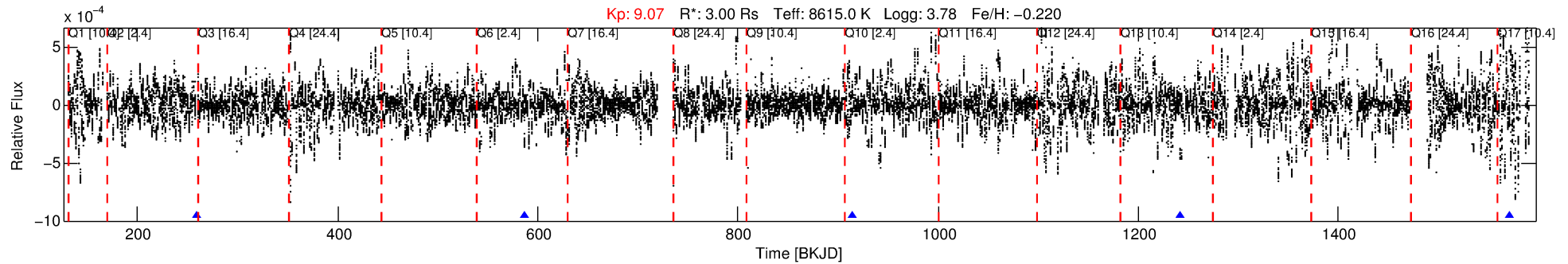
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 001294756-02

No Significant Match Found

DV One-Page Summary

KIC: 1294756 Candidate: 2 of 8 Period: 327.664 d



DV Fit Results:

Period = 327.66374 [0.00445] d
Epoch = 259.6417 [0.0258] BKJD
Rp/R* = 0.0149 [0.0063]
a/R* = 157.80 [439.93]
b = 0.68 [2.24]
Seff = 32.39 [22.83]
Teq = 608 [107] K
Rp = 4.89 [2.94] Re
a = 1.1722 [0.4930] AU
Ag = 3304.96 [3675.39] [0.90σ]
Teffp = 7131 [1595] K [4.08σ]

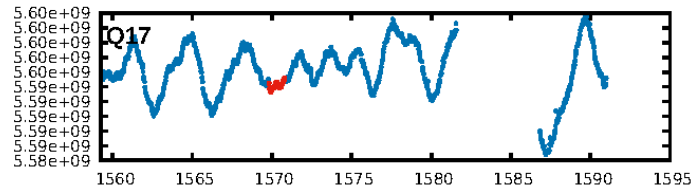
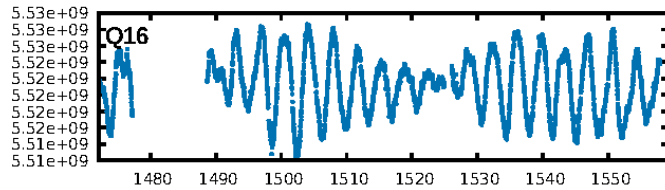
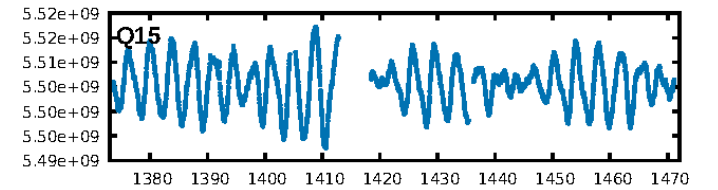
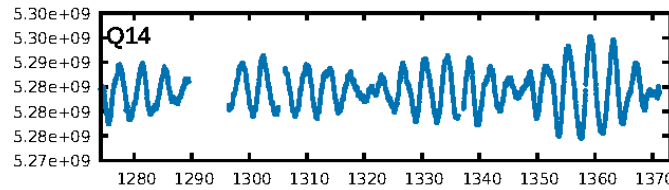
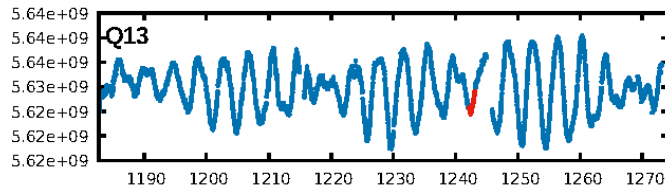
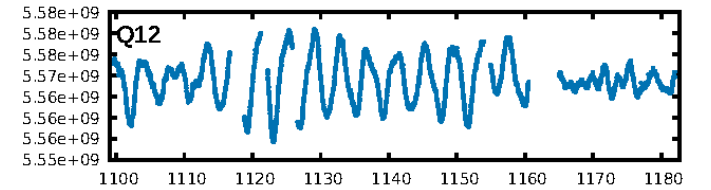
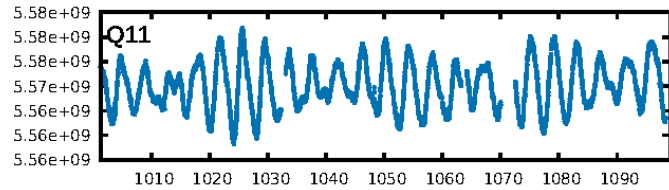
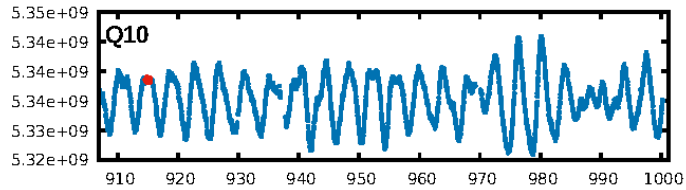
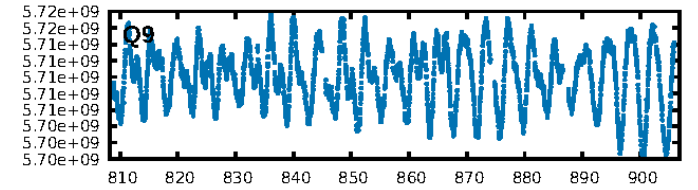
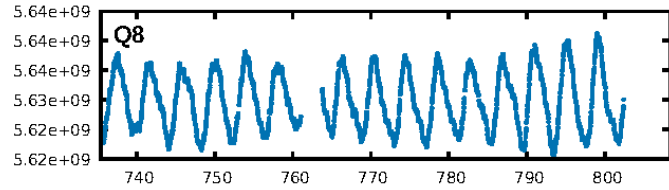
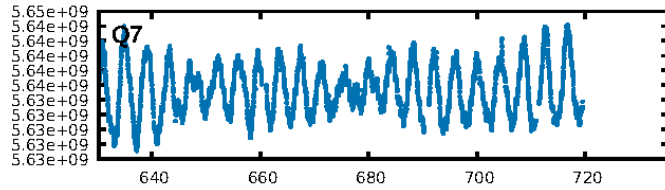
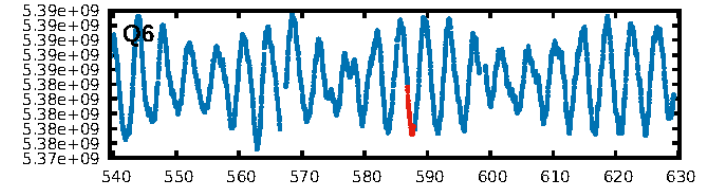
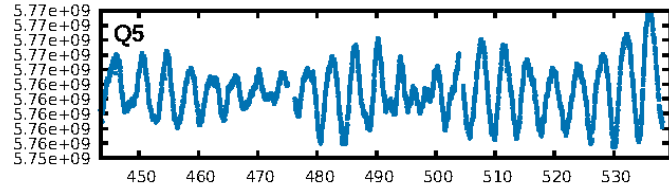
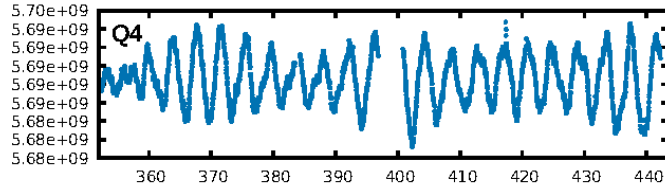
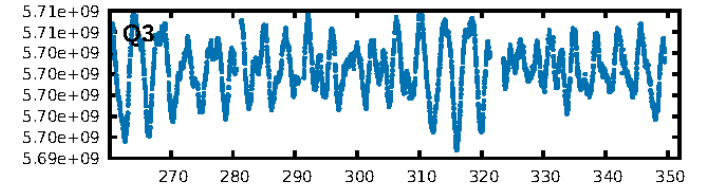
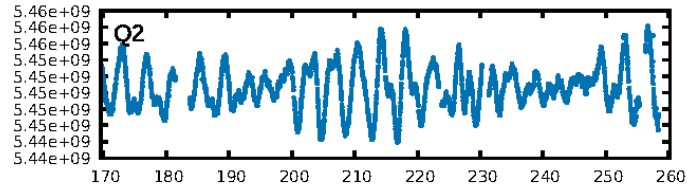
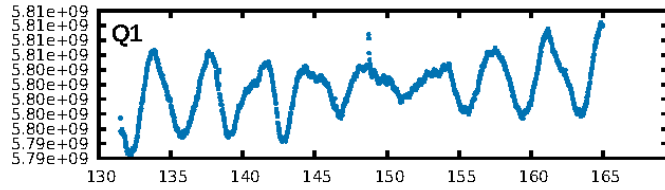
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [74.01σ]
LongPeriod-sig: 100.0% [99.75σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.06e-23
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: N/A
Centroid-sig: 0.8%
Centroid-so: 4.410 arcsec [1.70σ]
OotOffset-rm: 10.935 arcsec [5.11σ]
KicOffset-rm: 10.193 arcsec [7.68σ]
OotOffset-st: 1/0/0/2 [3]
KicOffset-st: 1/0/0/2 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 0.00 [0/4]

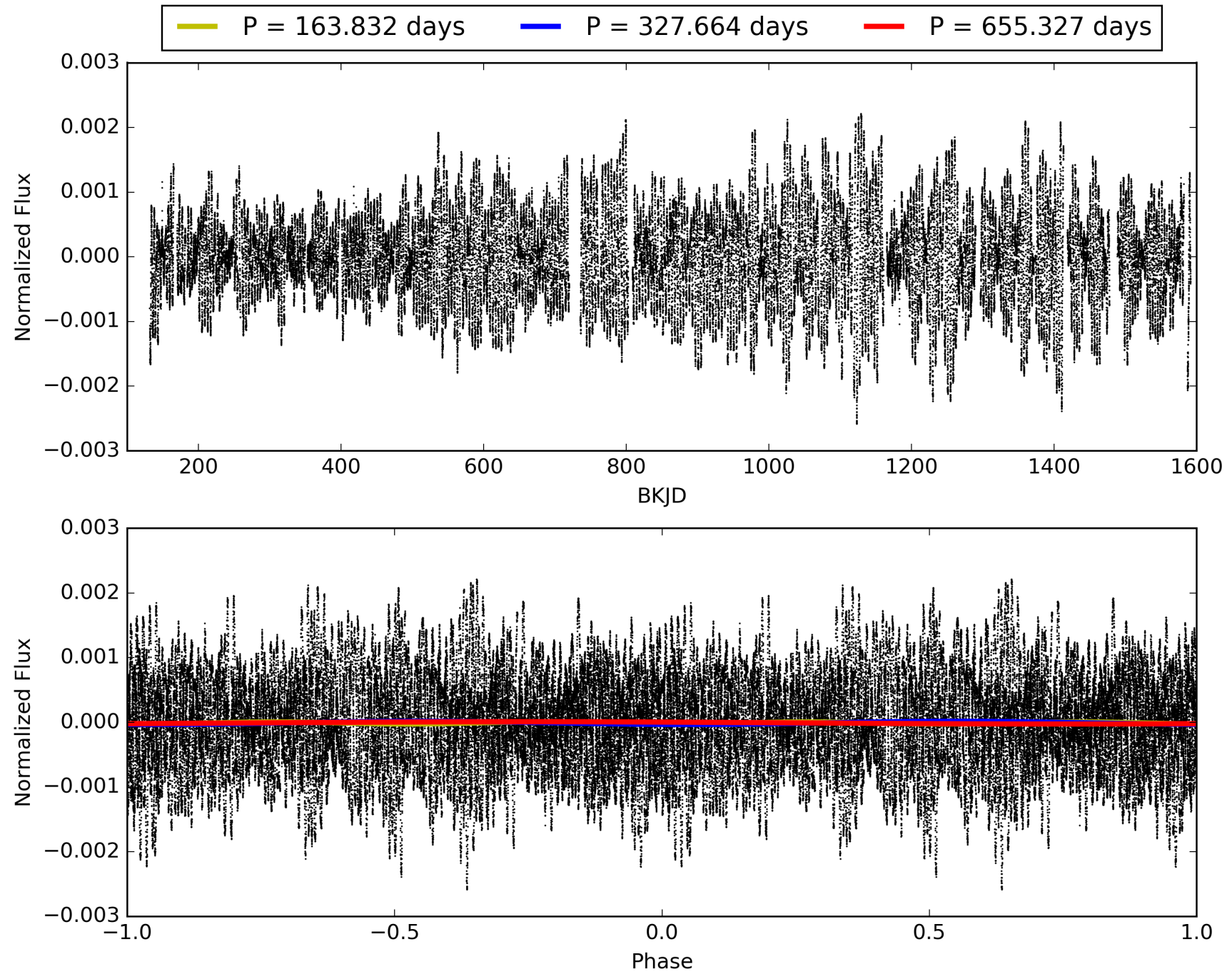
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 00:07:51 Z

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

TCE 001294756-02, PDC Light Curves

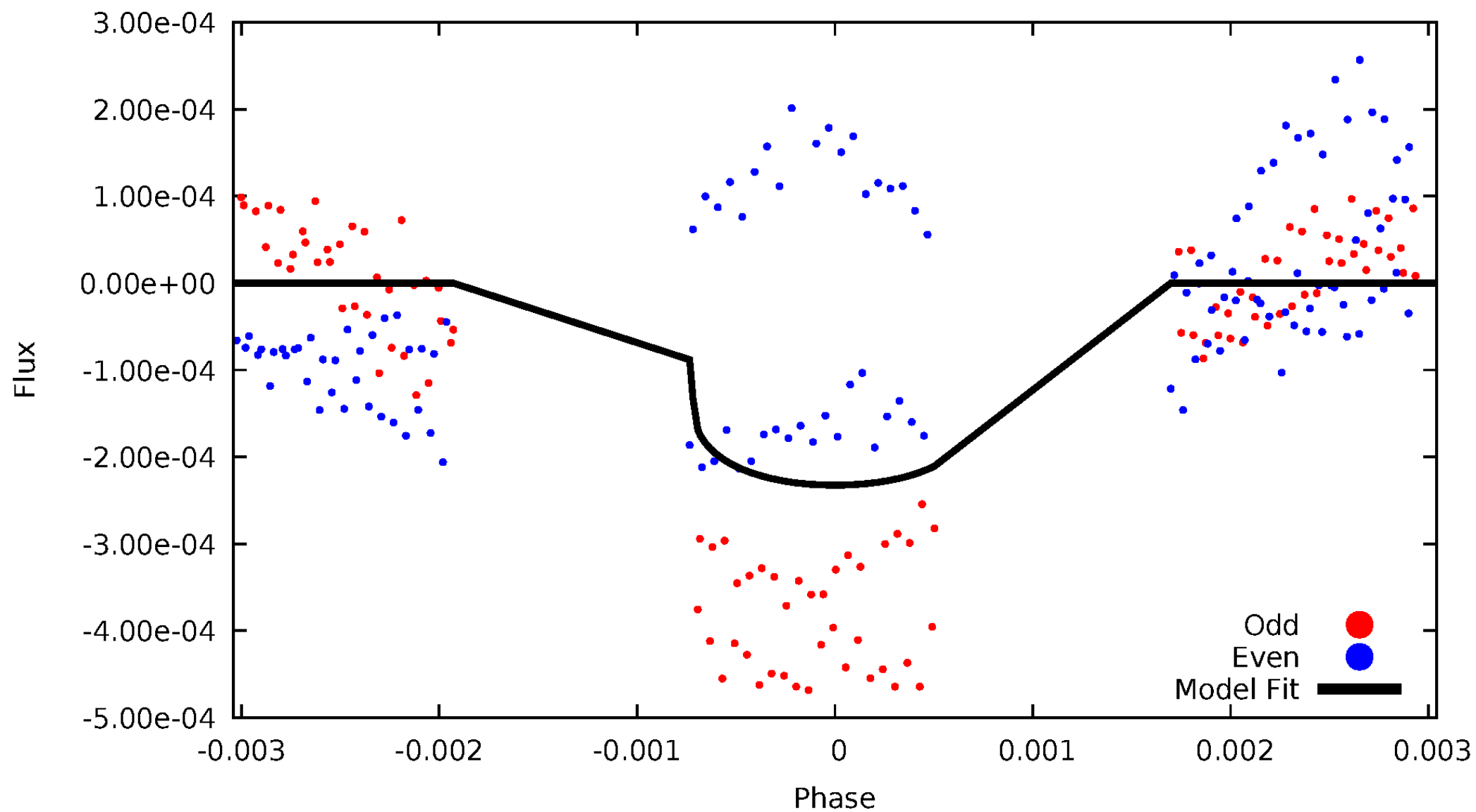


TCE 001294756-02



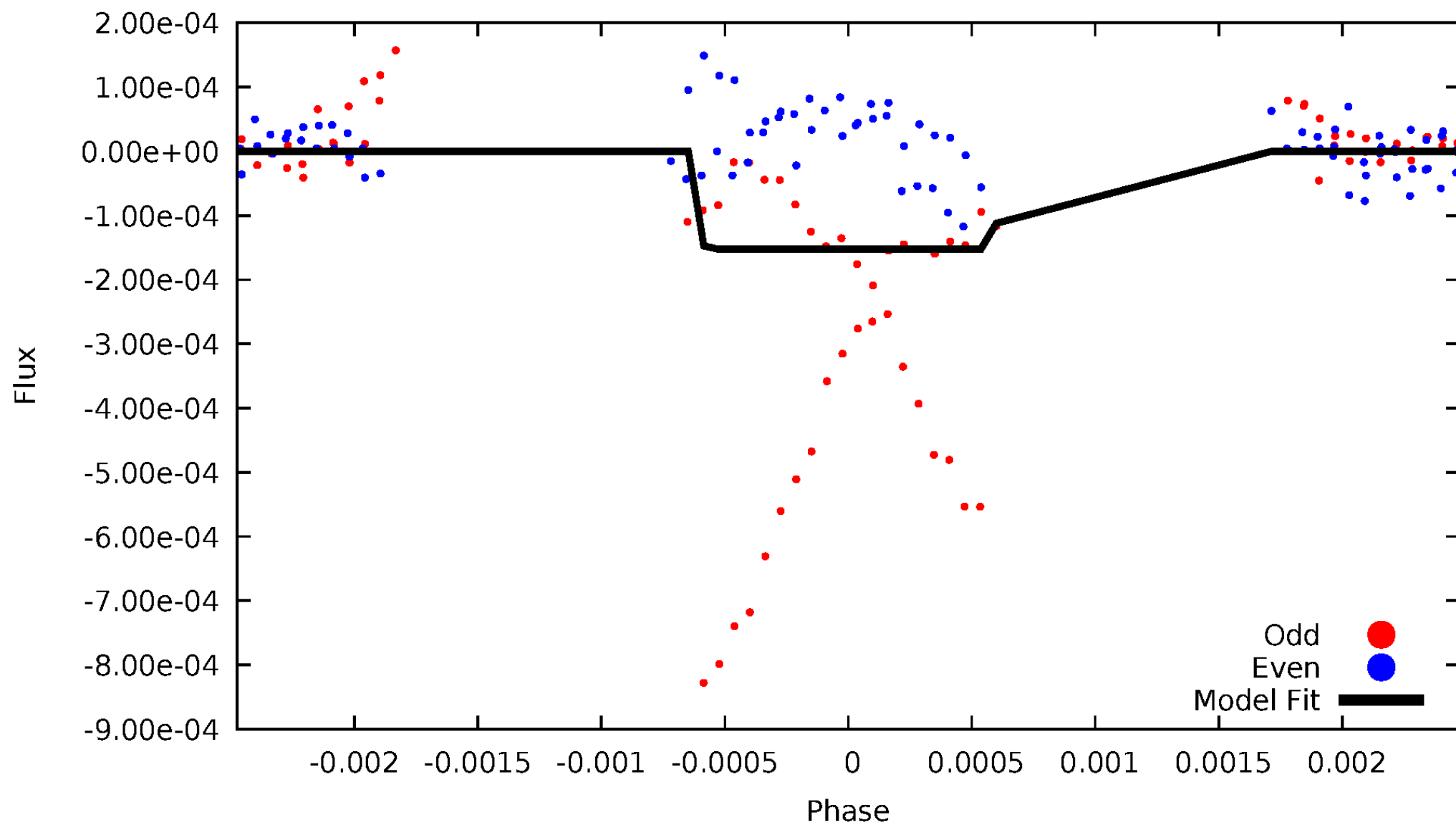
DV Odd/Even

TCE 001294756-02



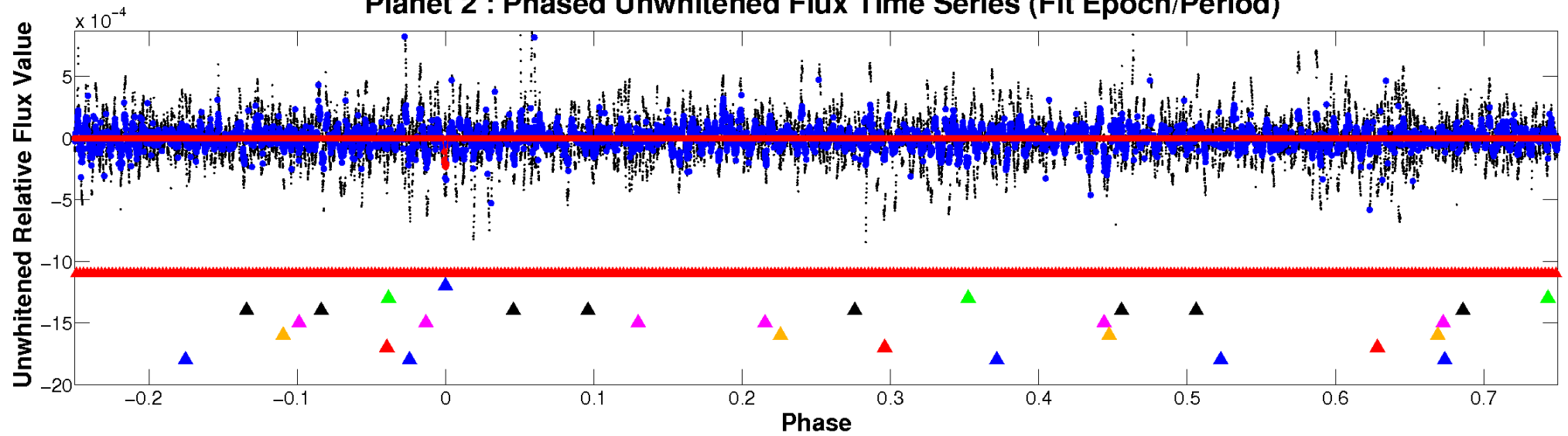
ALT Odd/Even

TCE 001294756-02

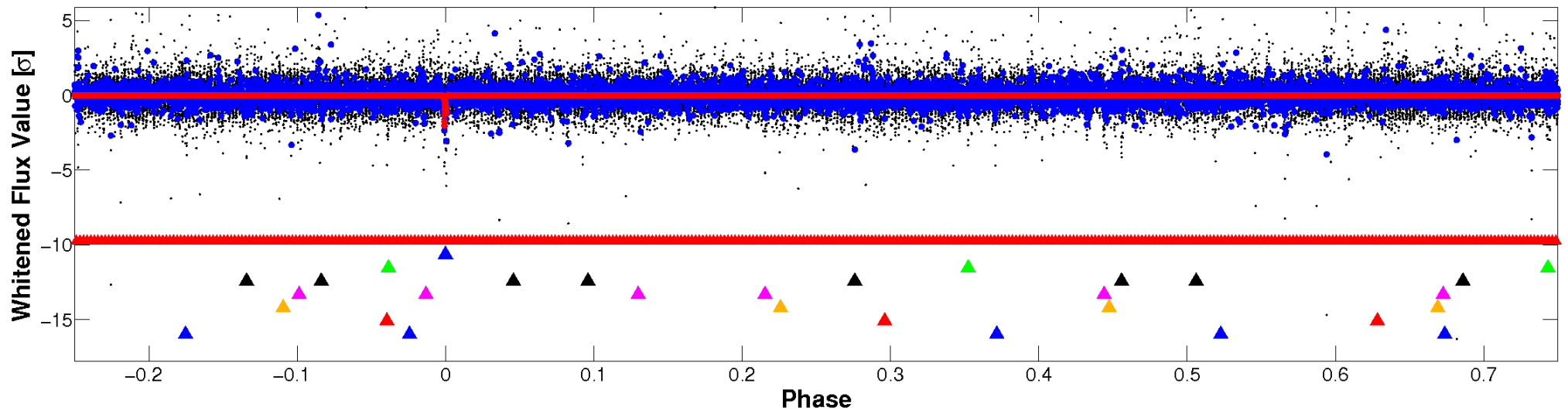


Non-Whitened Vs. Whitened Light Curve

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

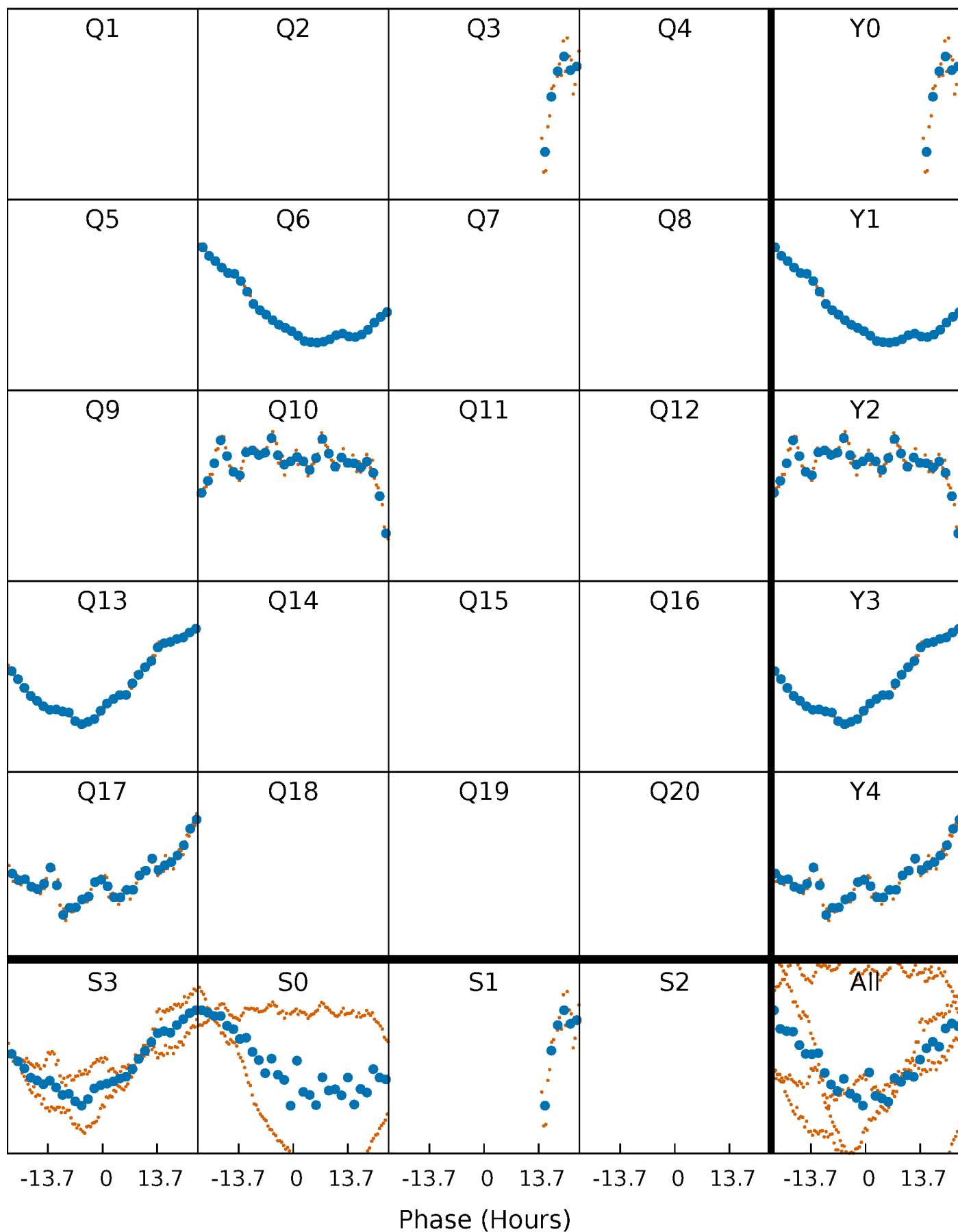


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



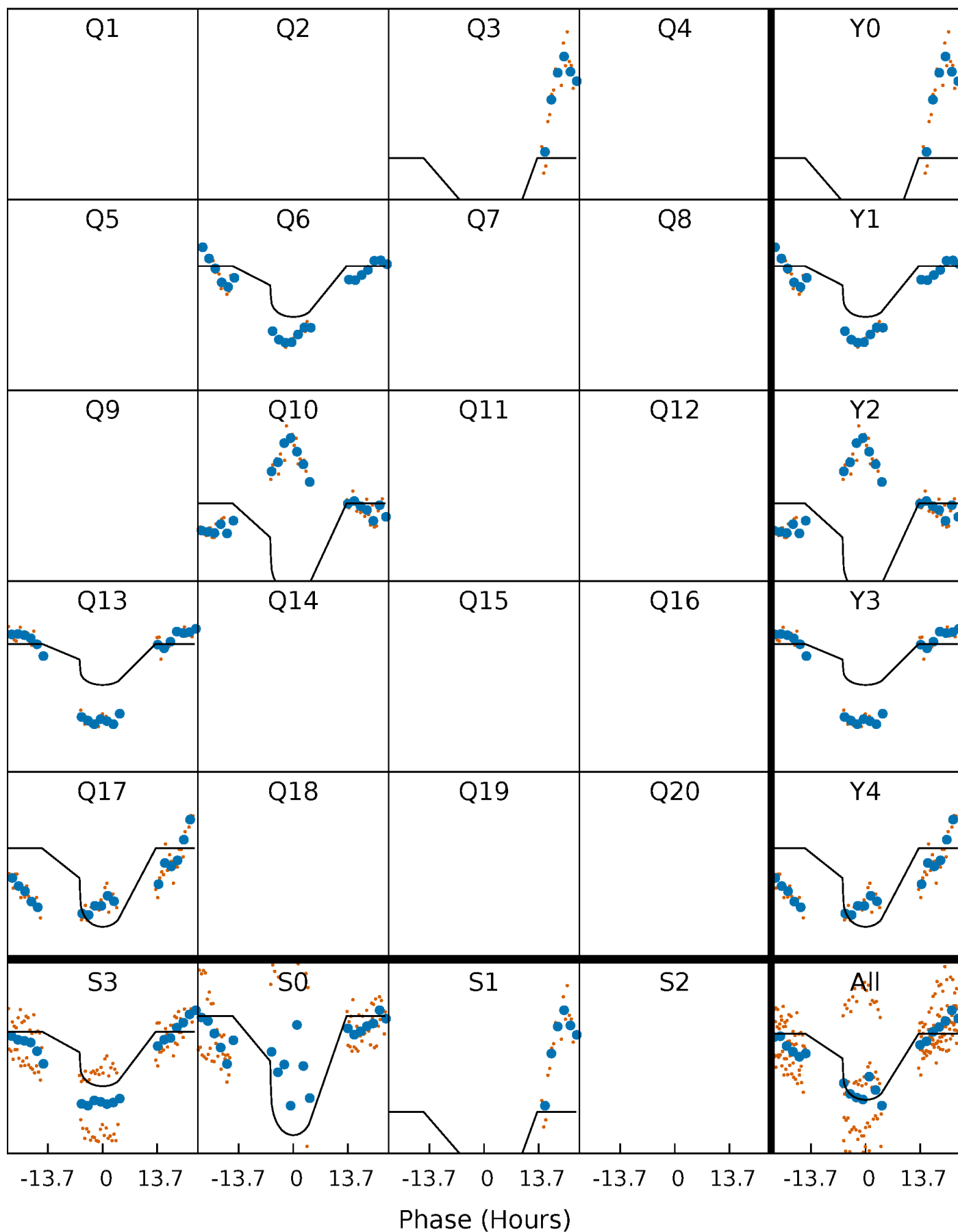
PDC Quarter-Phased Transit Curves

TCE 001294756-02 $P=327.663741$ Days $T_0=259.641741$ (BKJD)



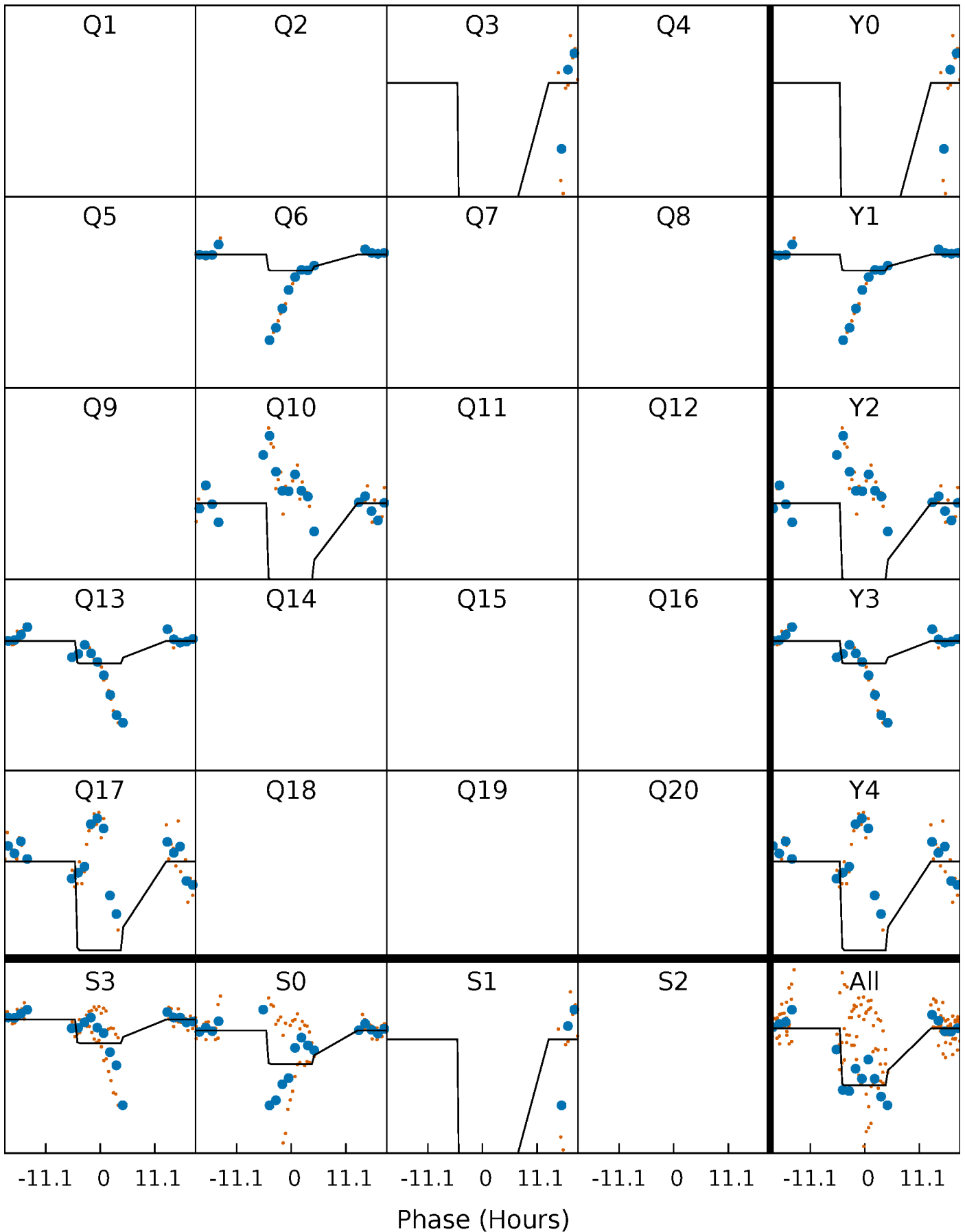
DV Quarter-Phased Transit Curves

TCE 001294756-02 P=327.663741 Days $T_0=259.641741$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

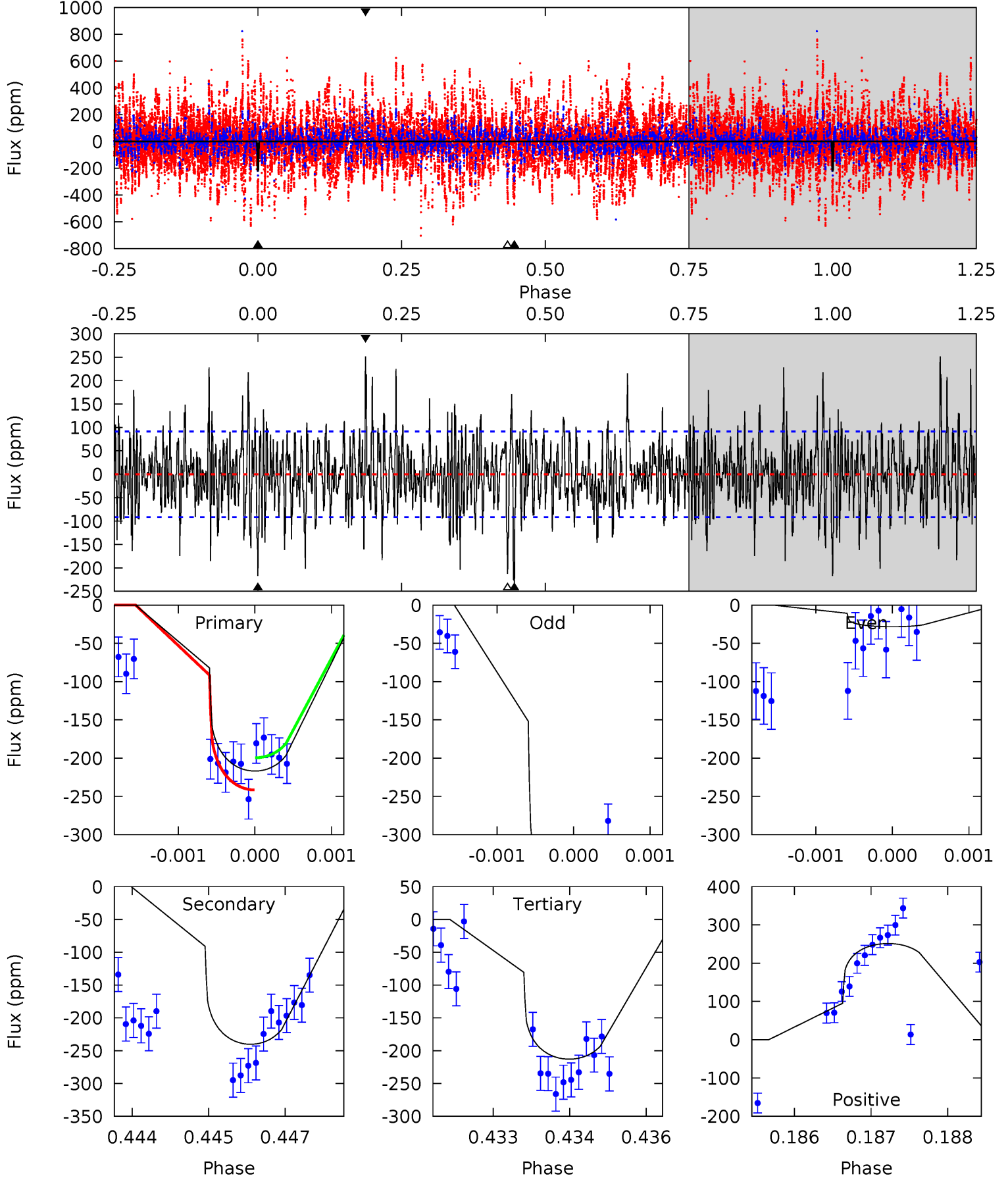
TCE 001294756-02 $P=327.672568$ Days $T_0=259.601277$ (BKJD)



DV Model-Shift Uniqueness Test

001294756-02, $P = 327.663741$ Days, $E = 259.641741$ Days

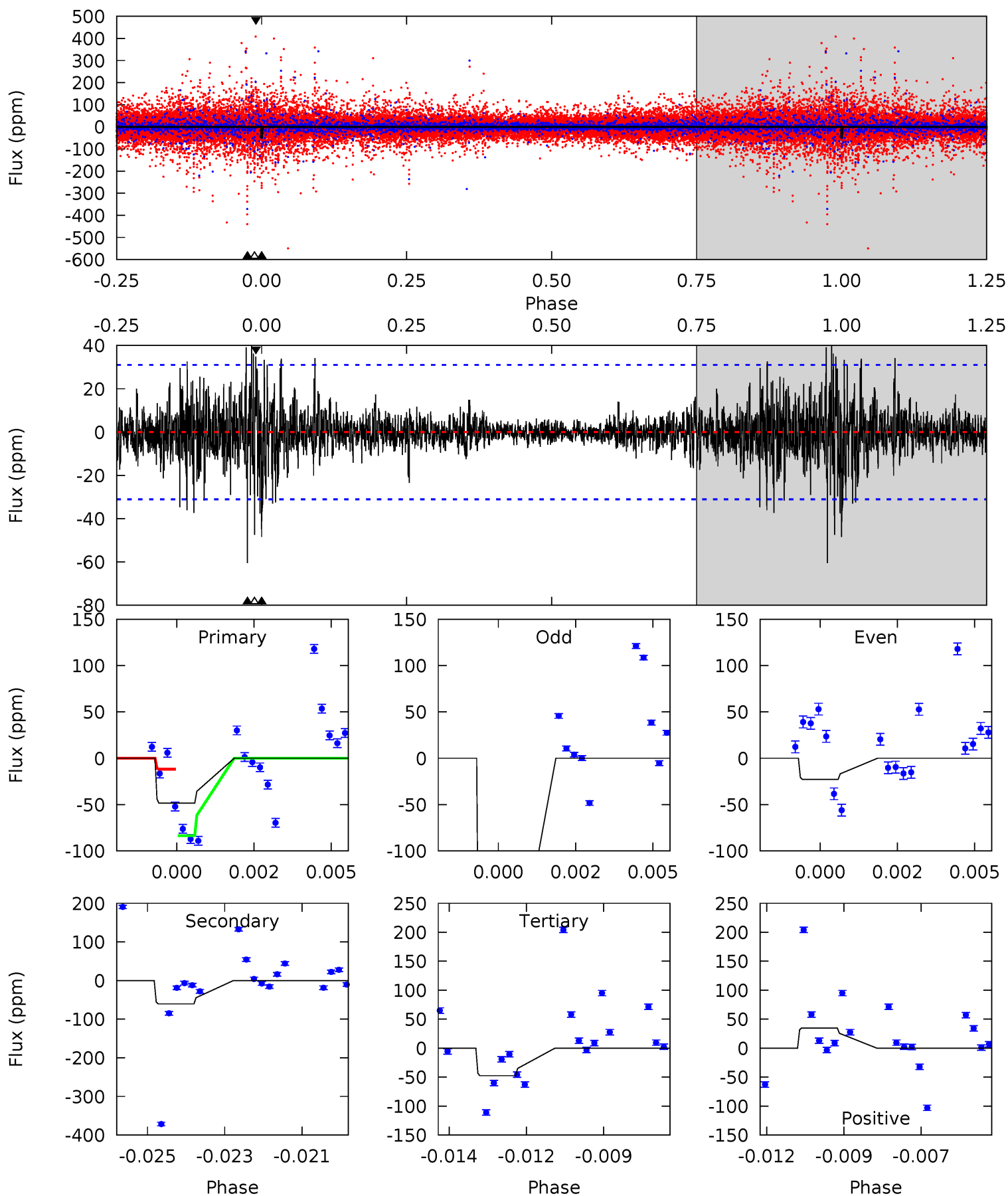
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.8	14.2	12.6	14.9	5.41	3.23	3.69	0.23	-2.04	1.62	-0.66	10.7	0.82	0.51	1.22



Alt Model-Shift Uniqueness Test

001294756-02, P = 327.672568 Days, E = 259.601277 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.27	10.3	8.10	5.94	5.30	3.05	1.22	0.17	2.33	2.22	4.38	21.5	1.29	0.40	6.19



Stellar Parameters For KIC 001294756

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8615^{+238}_{-374}	$3.784^{+0.405}_{-0.135}$	$-0.220^{+0.400}_{-0.350}$	$3.003^{+0.851}_{-1.276}$	$2.002^{+0.411}_{-0.411}$	$0.104^{+0.376}_{-0.047}$
	+3%/-4%	+11%/-4%	+182%/-159%	+28%/-42%	+21%/-21%	+361%/-45%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 001294756-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-240 ± 17	$4.47^{+2.22}_{-2.07}$	818^{+78}_{-94}	8779^{+4816}_{-1673}	9164^{+21033}_{-5060}
Alt.	-60 ± 6	$3.68^{+2.17}_{-1.84}$	817^{+74}_{-93}	6510^{+3133}_{-1150}	3351^{+9865}_{-1992}

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

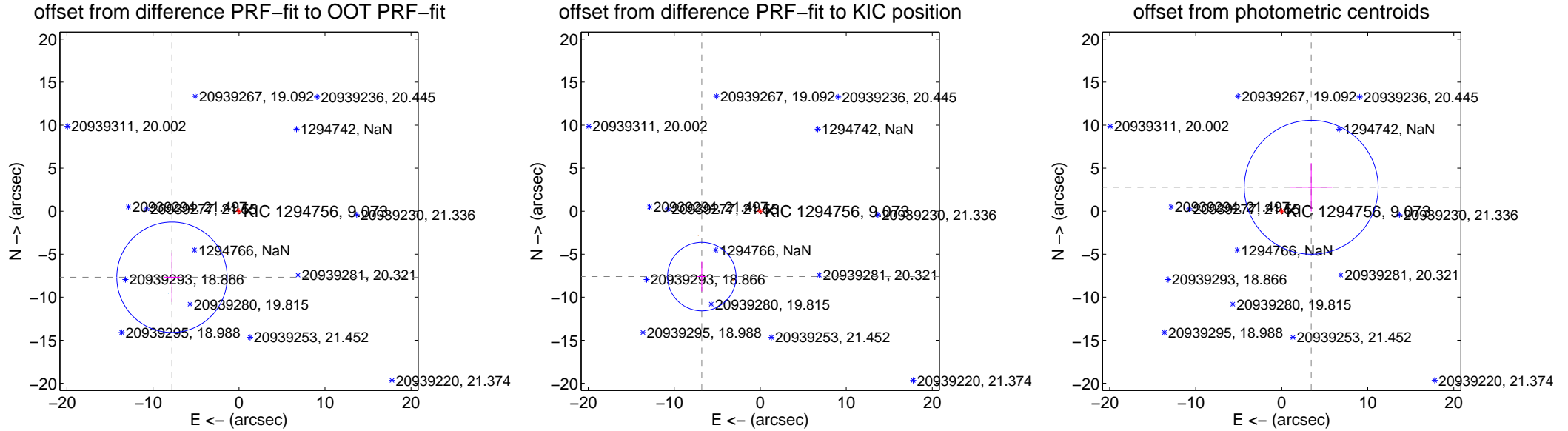
DV Centroid Data

Supplemental centroid analysis for 001294756-02. **Kepler magnitude: 9.07.** Transit SNR 7.17

There are 1 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 3.52 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	10.935 \pm 2.138	5.11	7.788 \pm 0.971	-7.676 \pm 2.882
PRF-fit source offset from KIC position	10.193 \pm 1.326	7.68	6.791 \pm 0.505	-7.600 \pm 1.720
photometric centroid source offset	4.41 \pm 2.59	1.70	-3.42 \pm 2.44	2.78 \pm 2.81



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

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

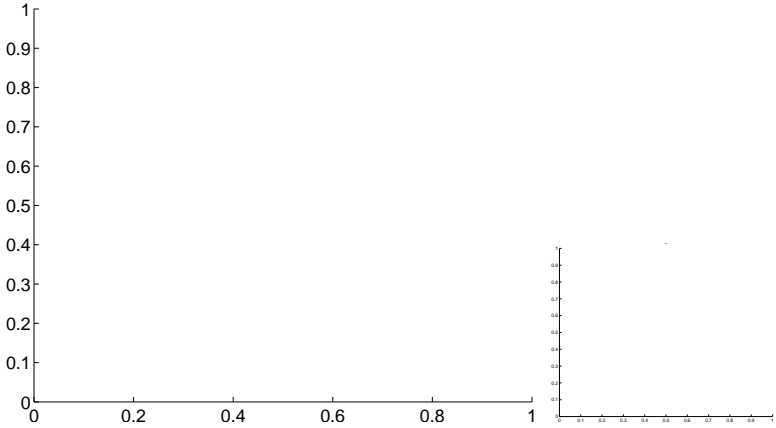


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

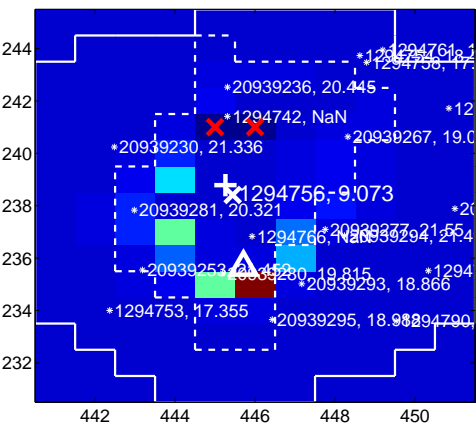
Q5 no difference image



Q5 no OOT image

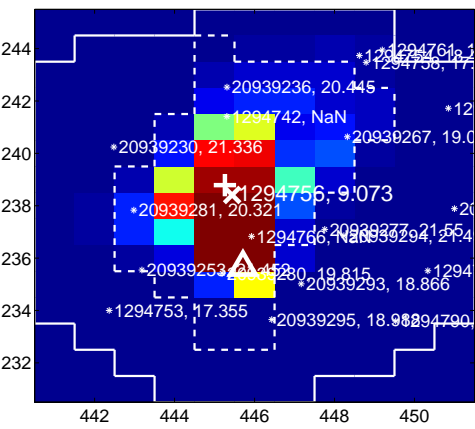


Q6 difference image

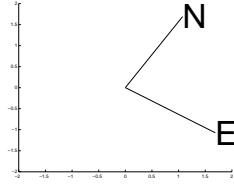


$\times 10^5$

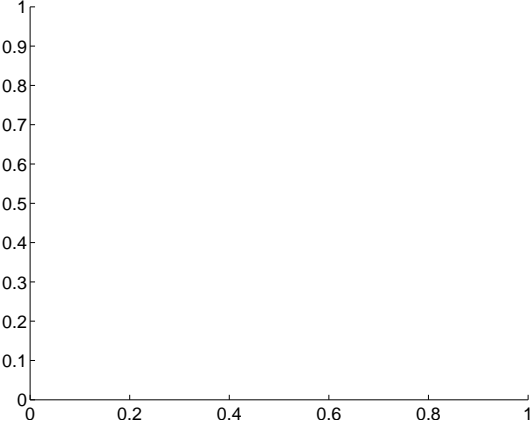
Q6 OOT image



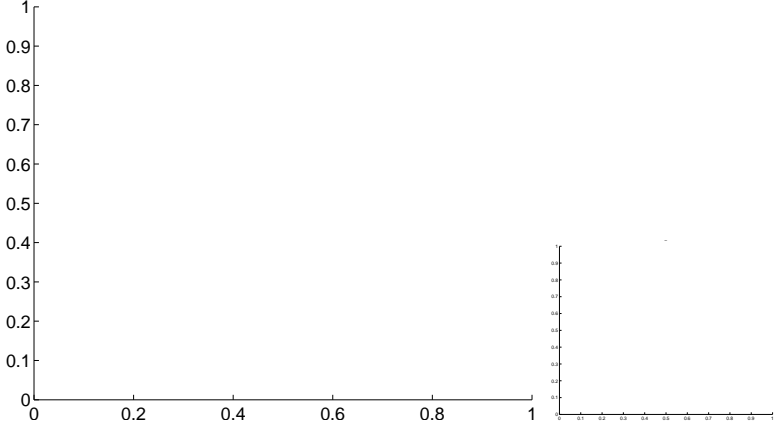
$\times 10^8$



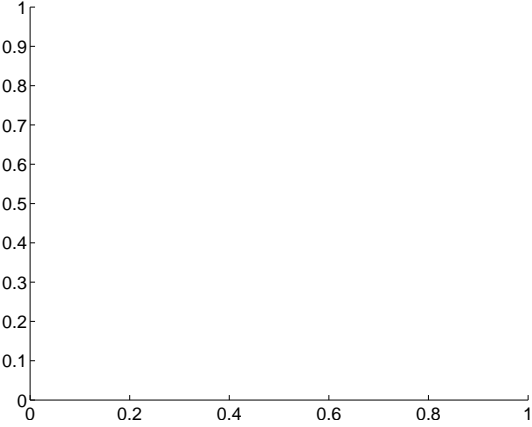
Q7 no difference image



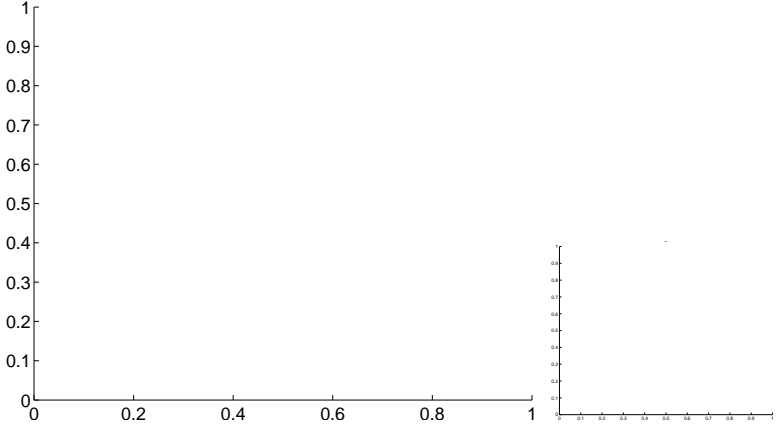
Q7 no OOT image



Q8 no difference image



Q8 no OOT image

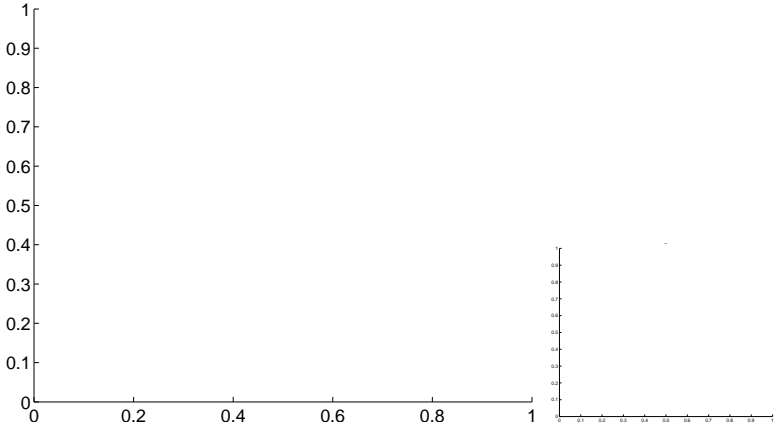


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

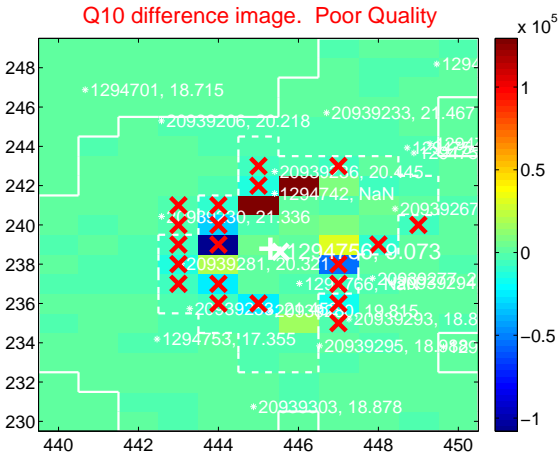
Q9 no difference image



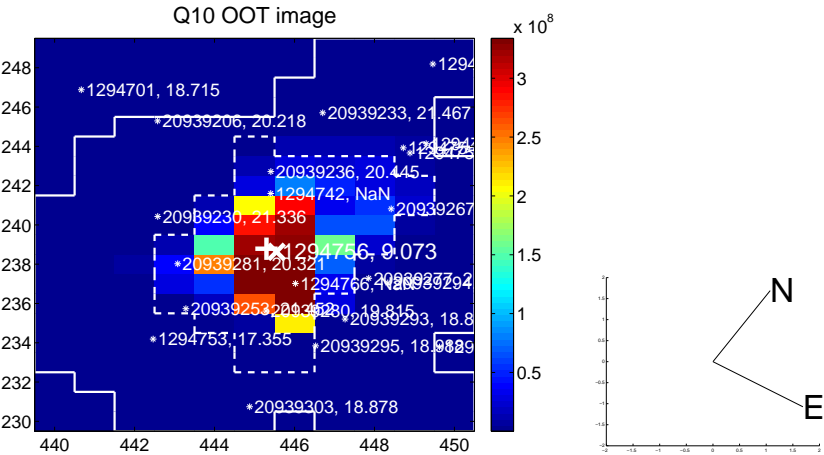
Q9 no OOT image



Q10 difference image. Poor Quality



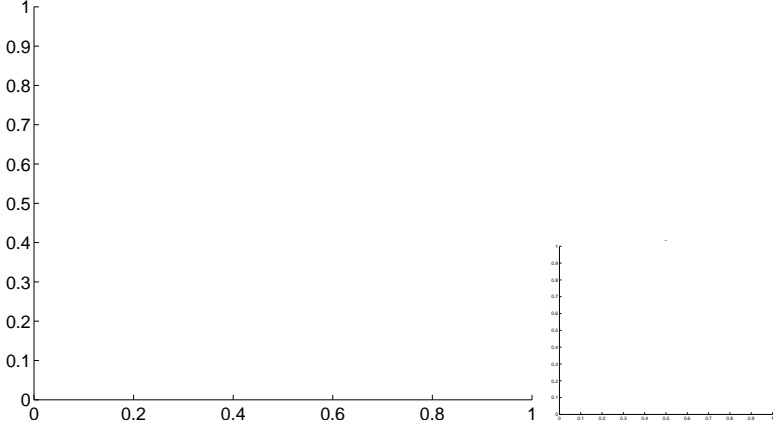
Q10 OOT image



Q11 no difference image



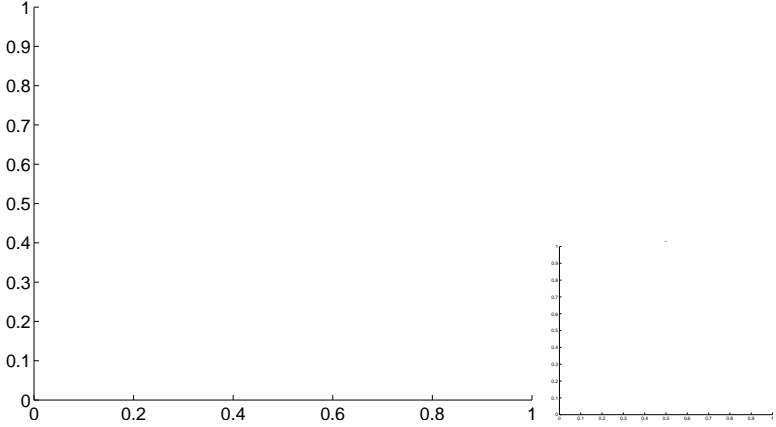
Q11 no OOT image



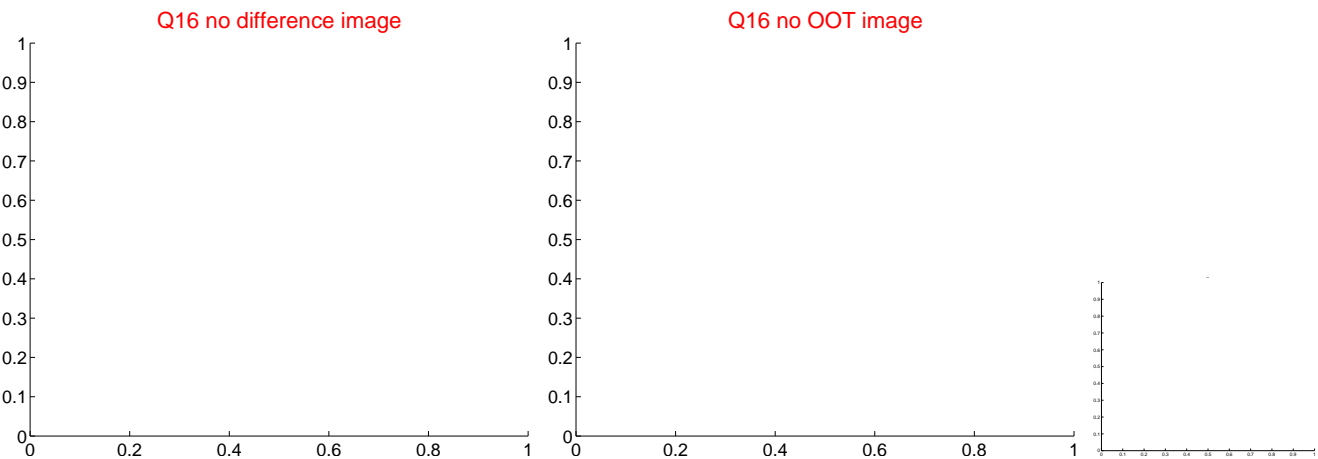
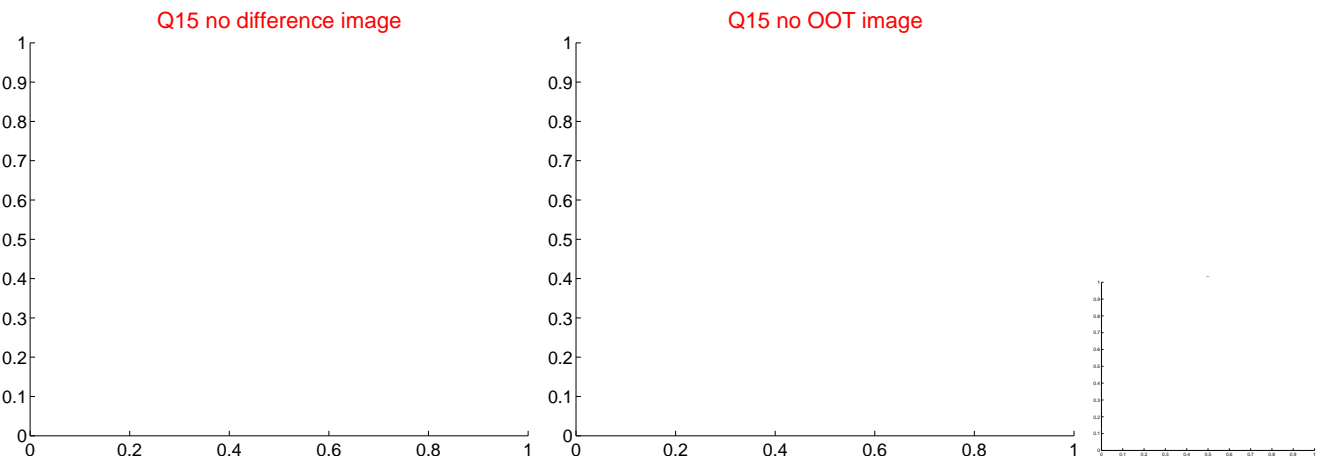
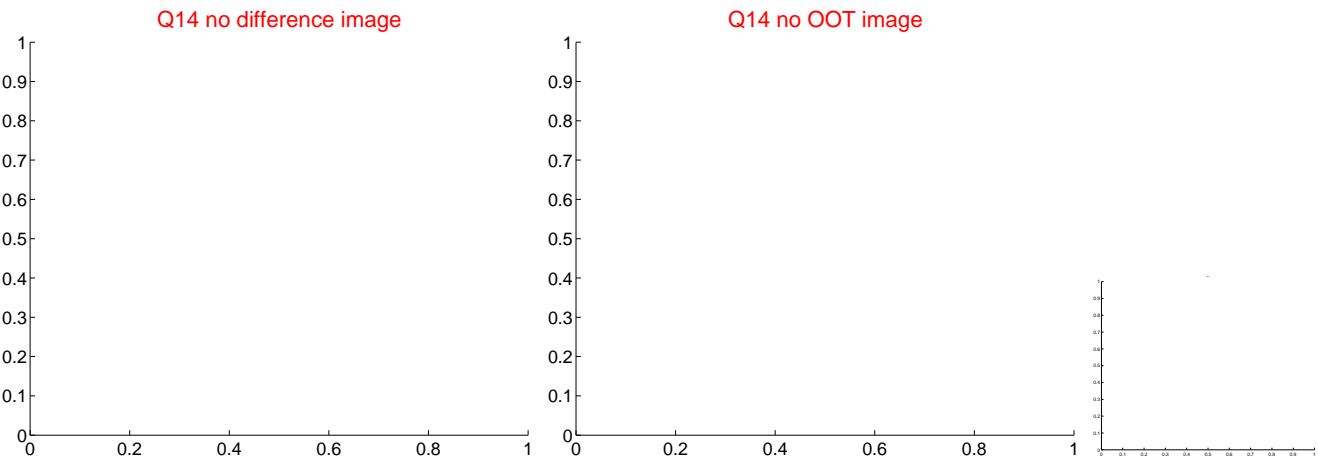
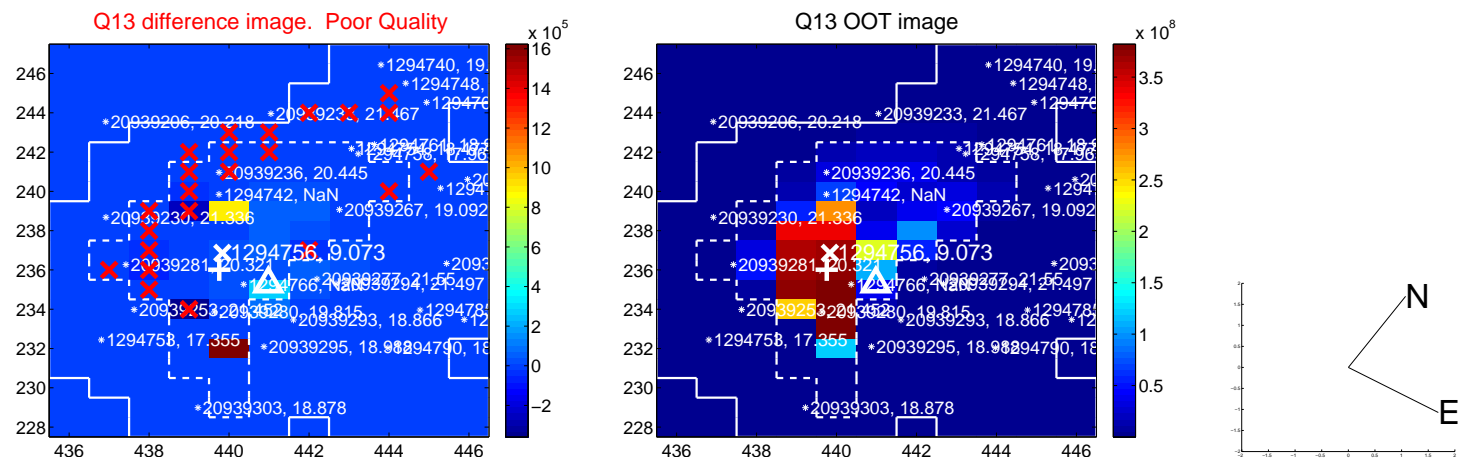
Q12 no difference image



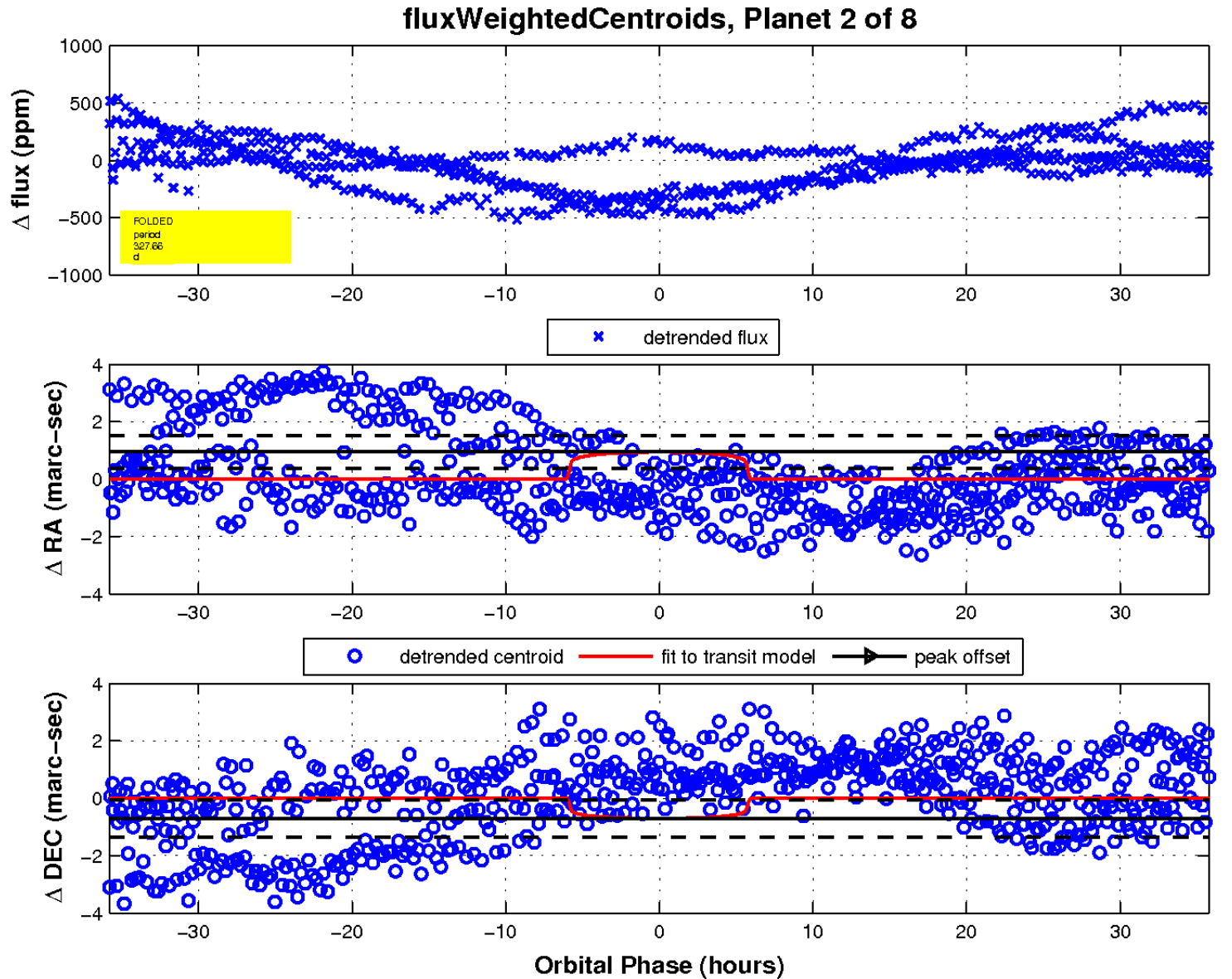
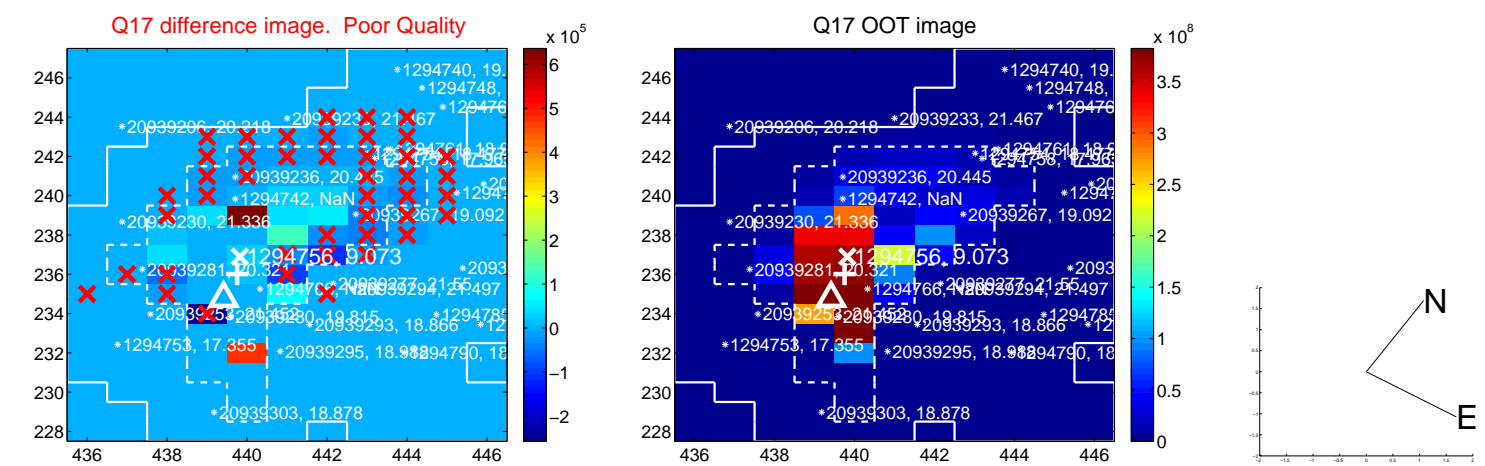
Q12 no OOT image



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

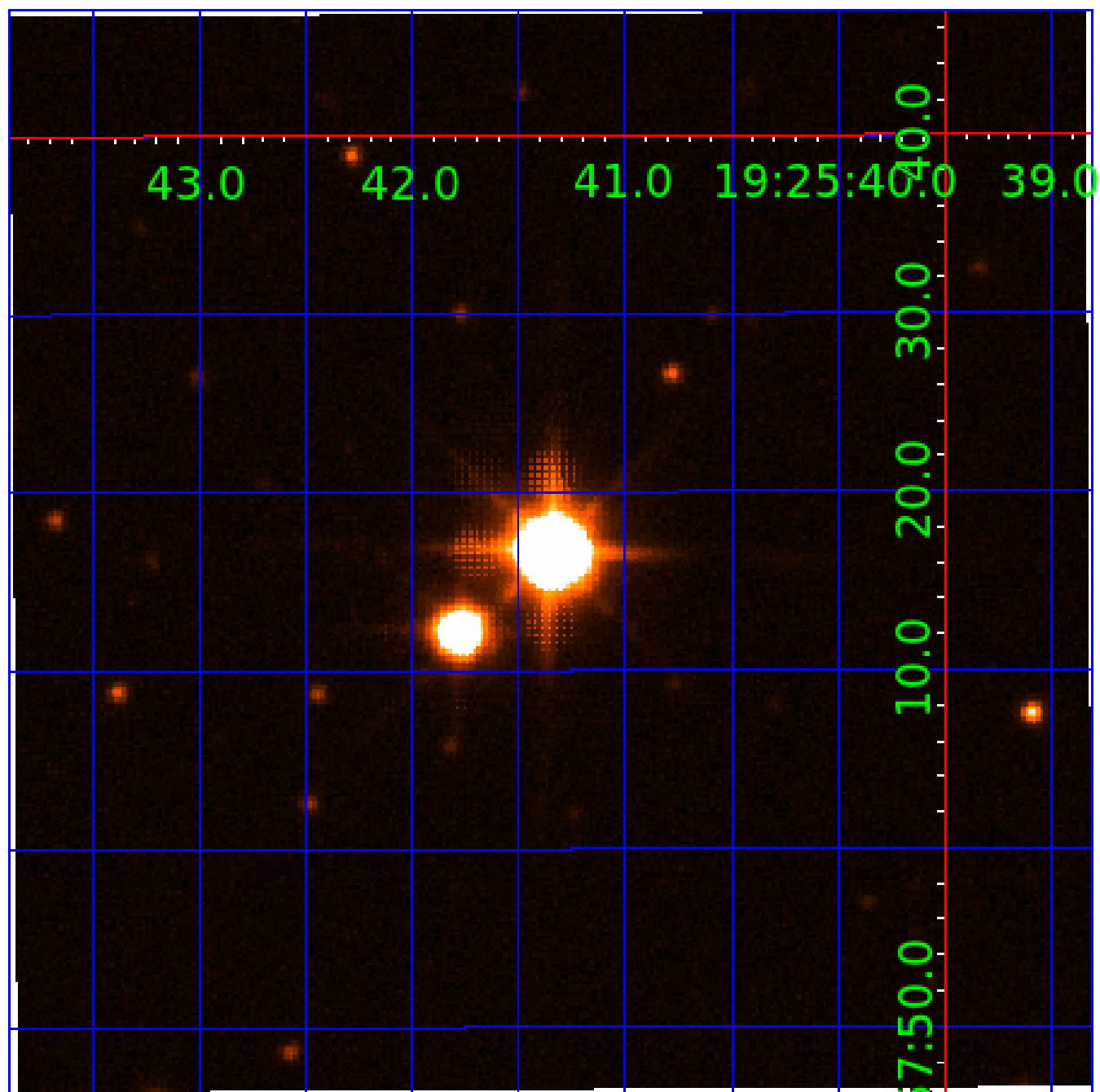


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 001294756

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})
001294756-01	OBS	No	0.795291	131.971363	4.7	2.979	11.8	9.2	3.00	8615	0.75	99292.83
001294756-02	OBS	No	327.663741	259.641741	232.4	11.955	16.0	7.2	3.00	8615	4.89	32.39
001294756-03	OBS	No	527.250441	175.542850	196.8	21.992	10.7	6.0	3.00	8615	4.99	17.18
001294756-04	OBS	No	193.299601	232.194176	162.6	3.125	12.5	8.5	3.00	8615	4.17	65.46
001294756-05	OBS	No	252.752885	302.211336	68.5	23.399	10.8	3.5	3.00	8615	2.84	45.78
001294756-06	OBS	No	400.264020	333.657989	264.4	12.736	10.7	7.0	3.00	8615	5.22	24.80
001294756-07	OBS	No	546.484228	246.698510	353.9	14.817	7.8	8.1	3.00	8615	6.80	16.38
001294756-08	OBS	No	278.183321	251.694824	98.3	10.703	9.5	4.1	3.00	8615	3.46	40.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
001294756-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
001294756-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—INCONSISTENT_TRANS—CENT_SATURATED
001294756-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_SATURATED
001294756-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—CENT_SATURATED
001294756-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
001294756-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_SATURATED
001294756-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—INCONSISTENT_TRANS—CENT_SATURATED
001294756-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_SATURATED

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

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

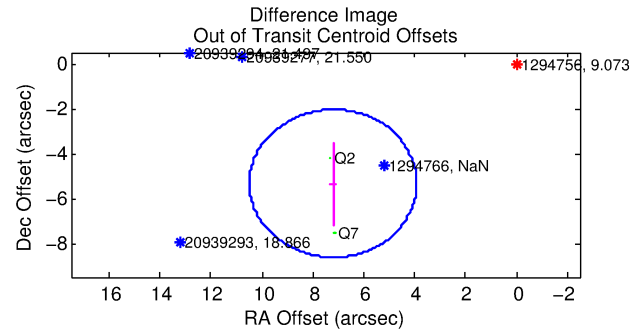
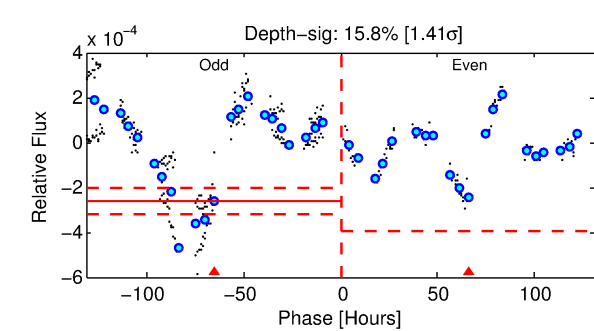
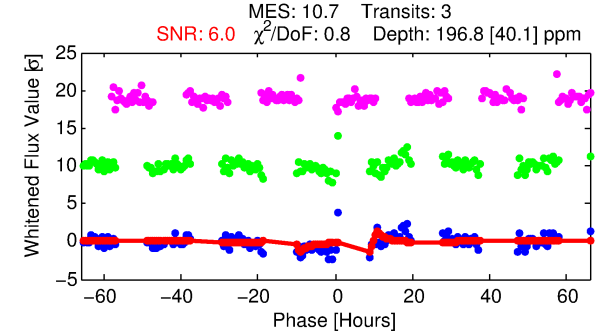
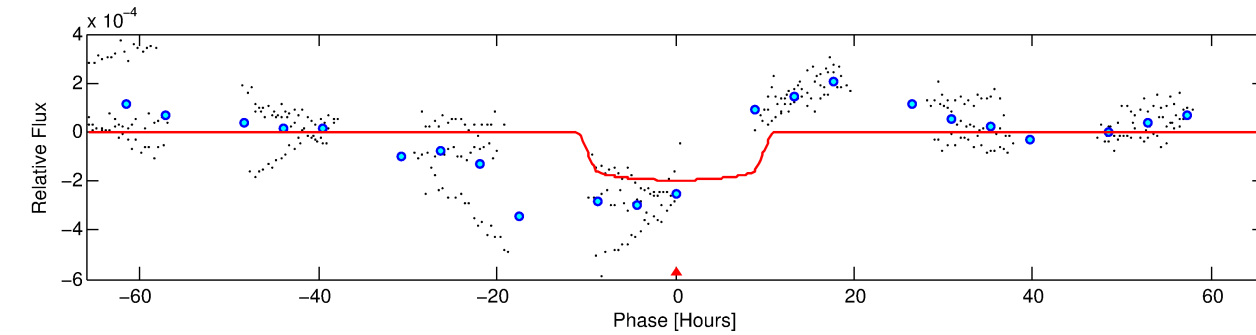
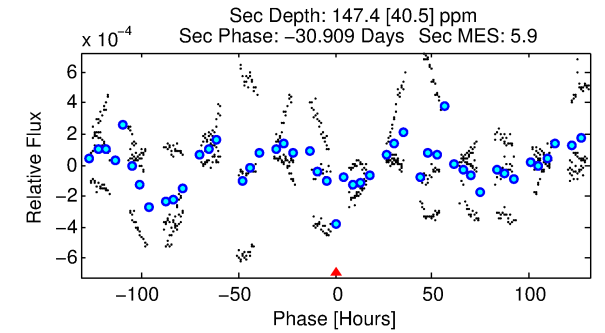
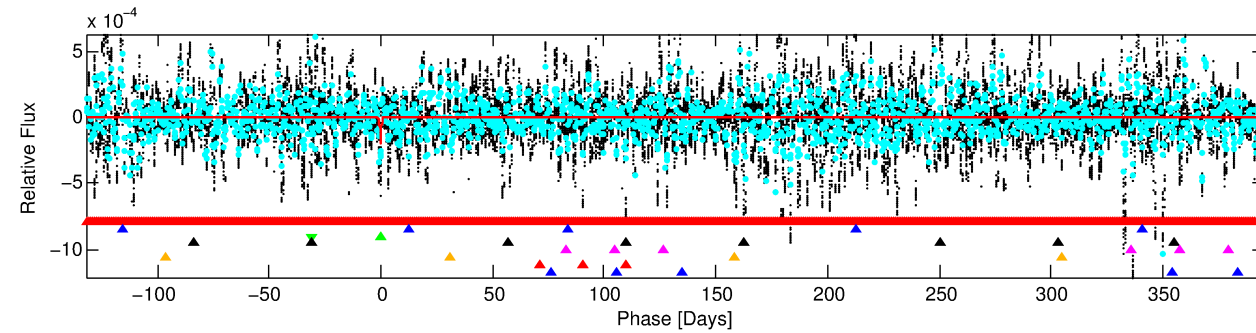
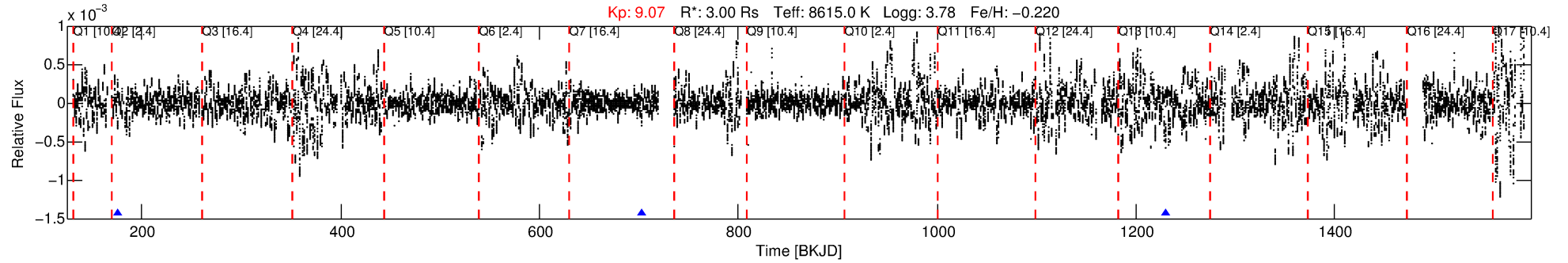
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 001294756-03

No Significant Match Found

DV One-Page Summary

KIC: 1294756 Candidate: 3 of 8 Period: 527.250 d



DV Fit Results:

Period = 527.25044 [0.01190] d
Epoch = 175.5428 [0.0122] BKJD
Rp/R* = 0.0152 [0.0018]
a/R* = 75.77 [13.32]
b = 0.93 [0.03]
Seff = 17.18 [12.11]
Teq = 519 [91] K
Rp = 4.99 [2.19] Re
a = 1.6097 [0.6770] AU
Ag = 8455.39 [6523.44] [1.30σ]
Teffp = 7696 [766] K [9.30σ]

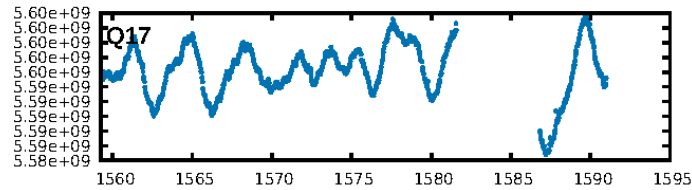
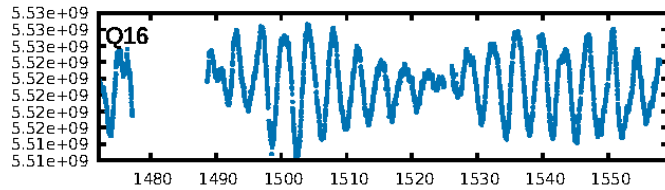
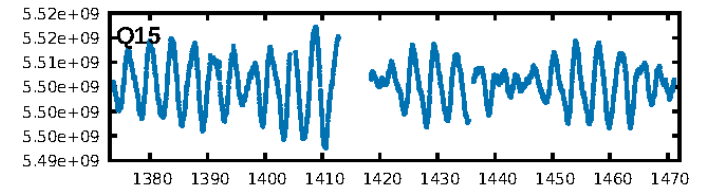
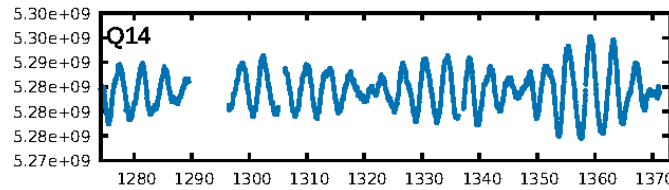
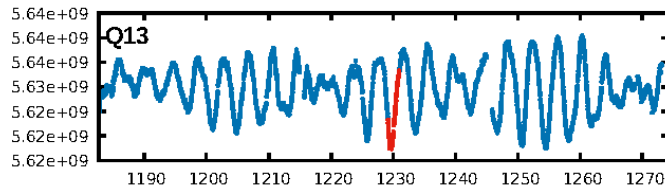
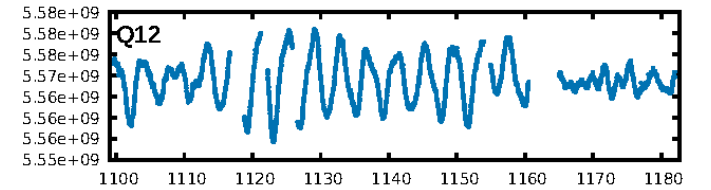
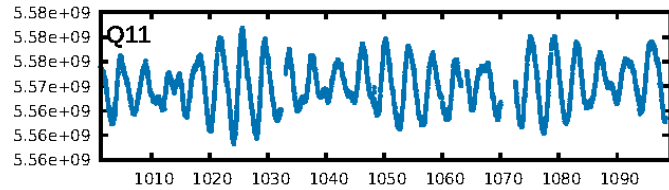
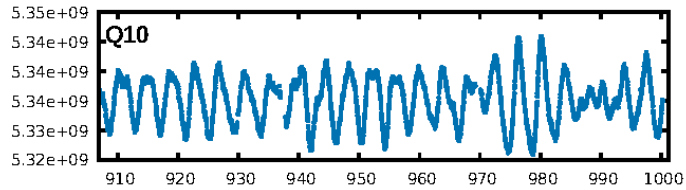
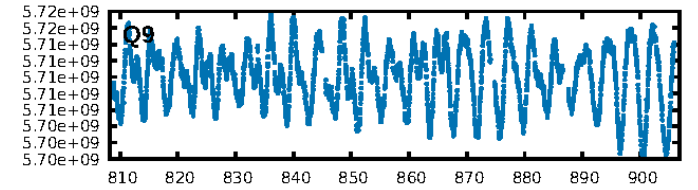
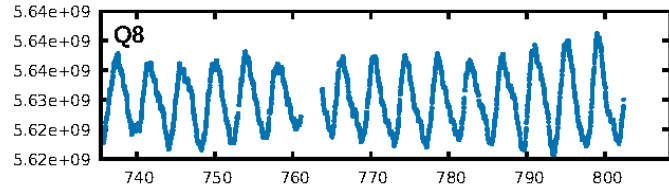
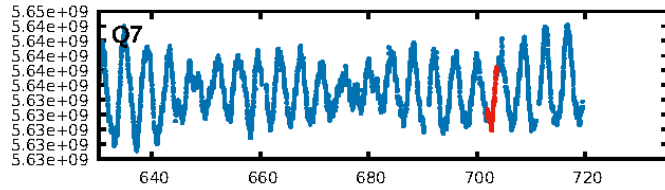
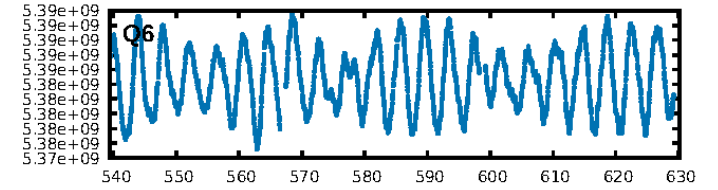
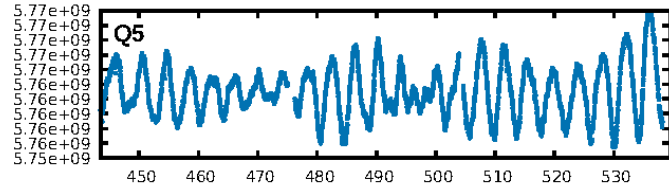
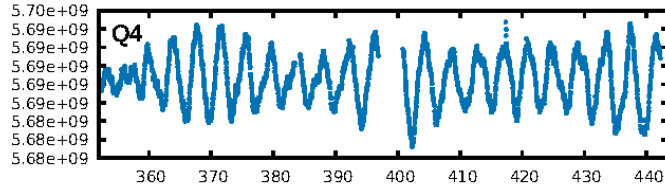
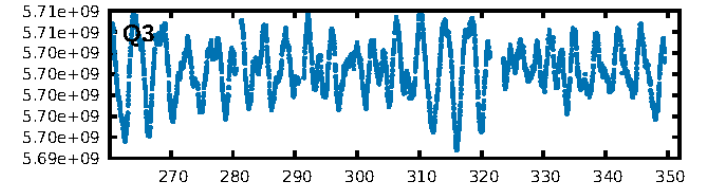
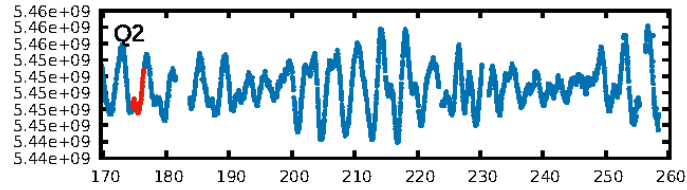
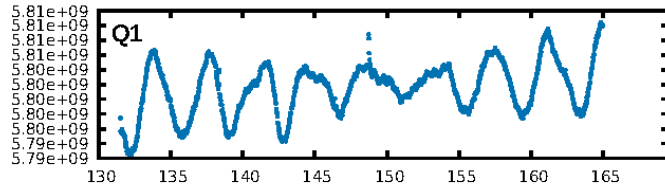
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [119.92σ]
LongPeriod-sig: 100.0% [17.41σ]
ModelChiSquare2-sig: 3.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.18e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: N/A
Centroid-sig: 14.4%
Centroid-so: 5.193 arcsec [1.09σ]
OotOffset-rm: 8.963 arcsec [8.18σ]
KicOffset-rm: 8.494 arcsec [5.90σ]
OotOffset-st: 1/1/0/0 [2]
KicOffset-st: 1/1/0/0 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 0.00 [0/2]

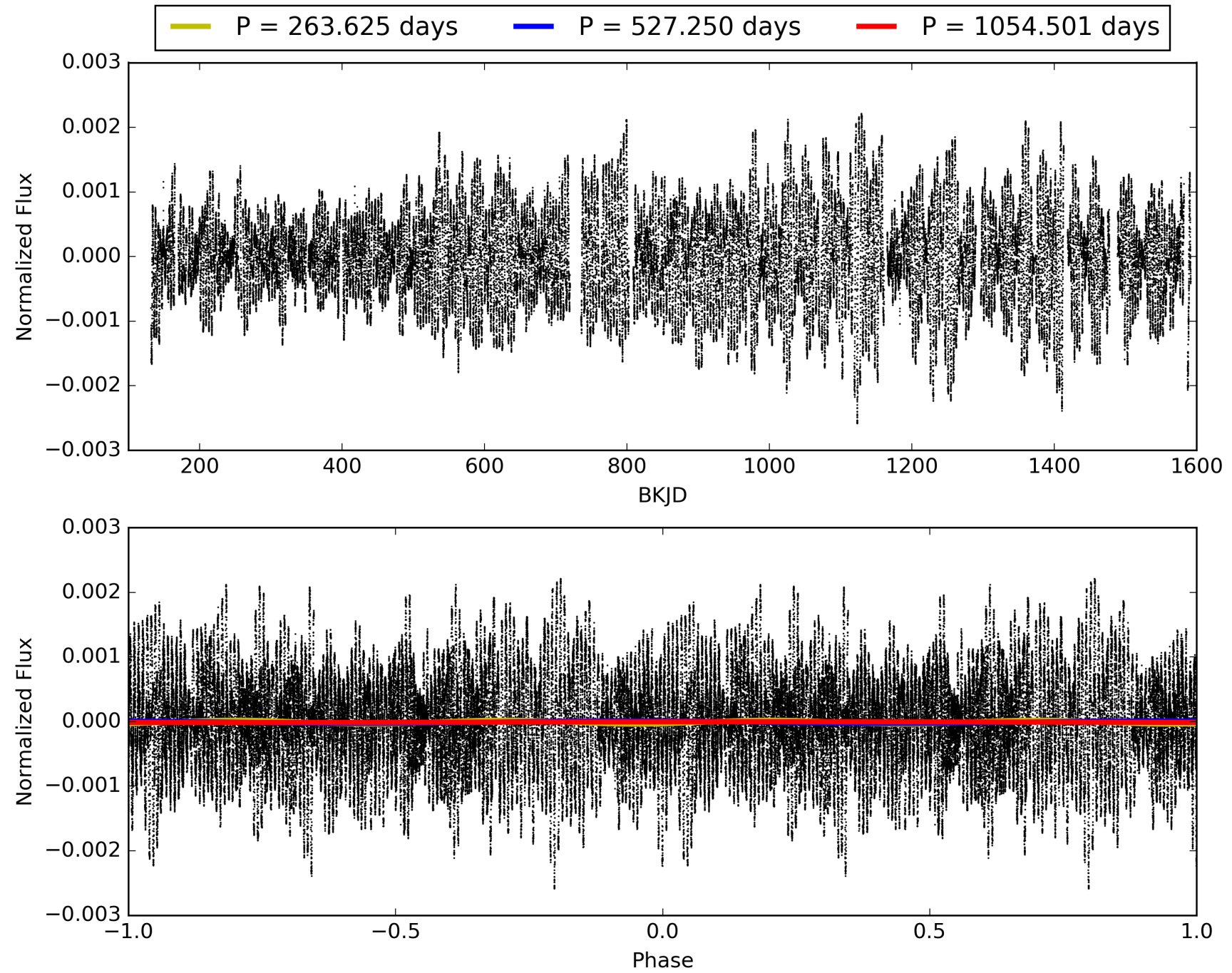
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 00:07:57 Z

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

TCE 001294756-03, PDC Light Curves

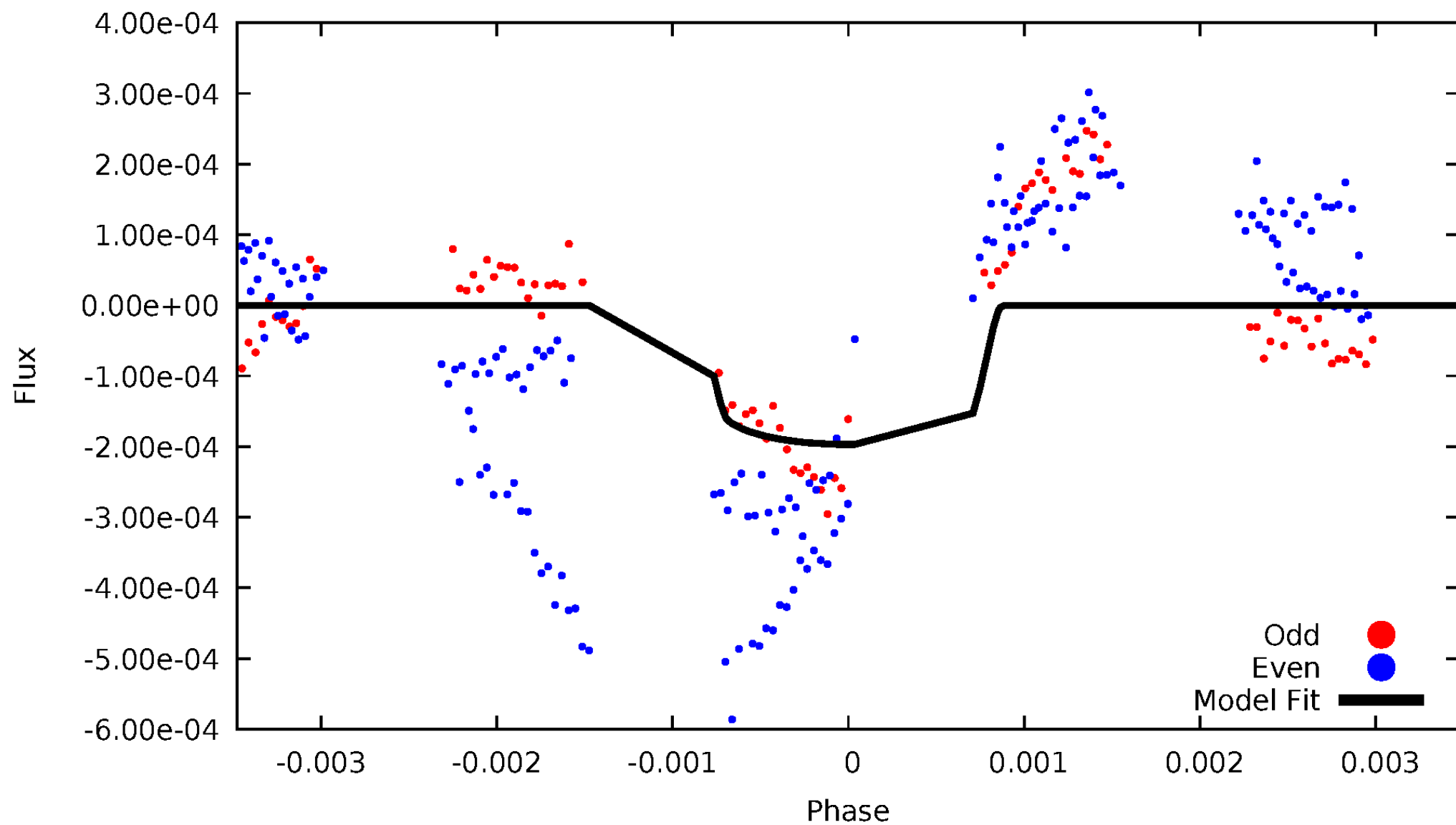


TCE 001294756-03



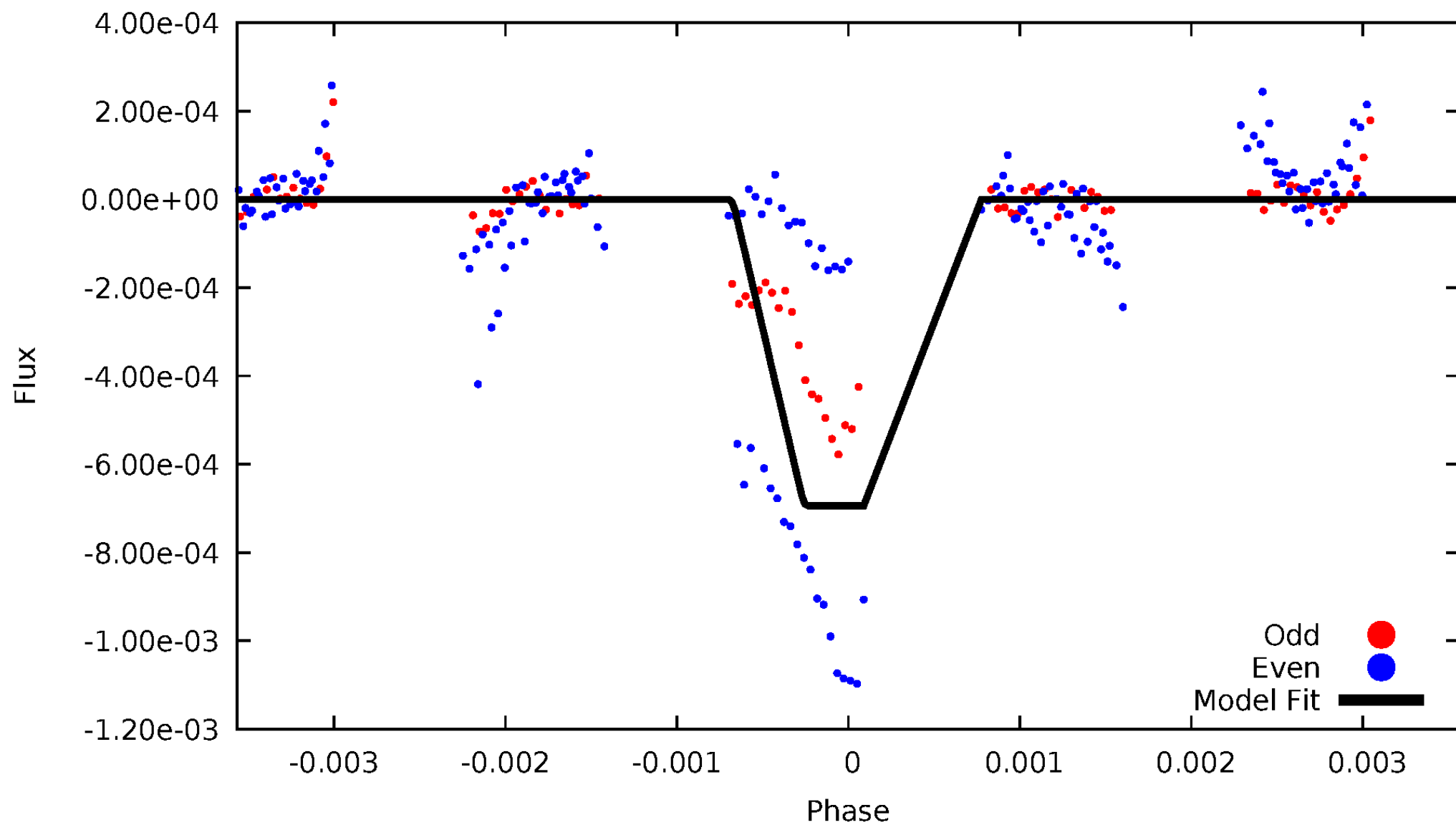
DV Odd/Even

TCE 001294756-03



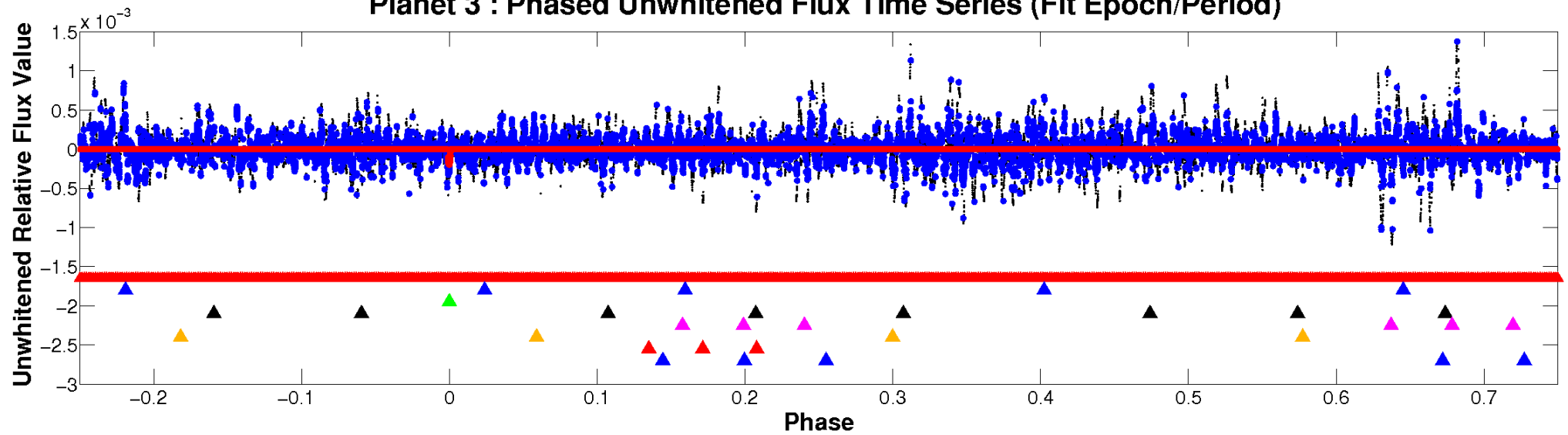
ALT Odd/Even

TCE 001294756-03

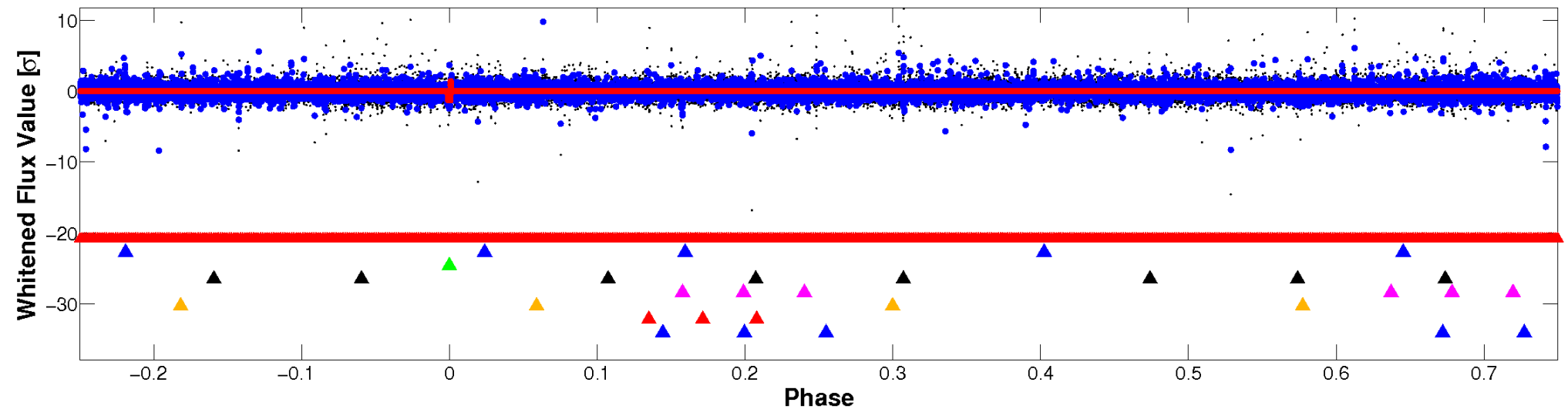


Non-Whitened Vs. Whitened Light Curve

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

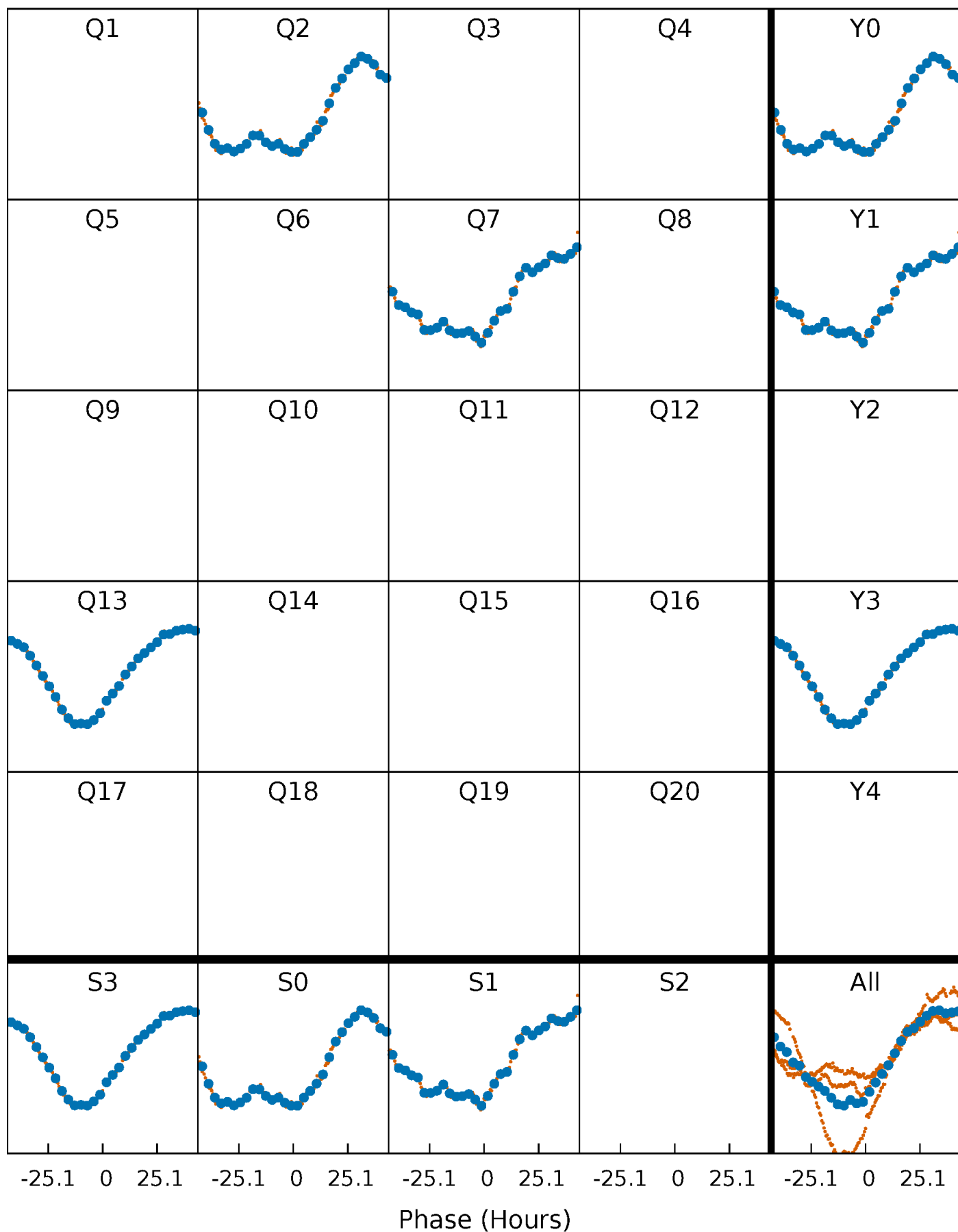


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



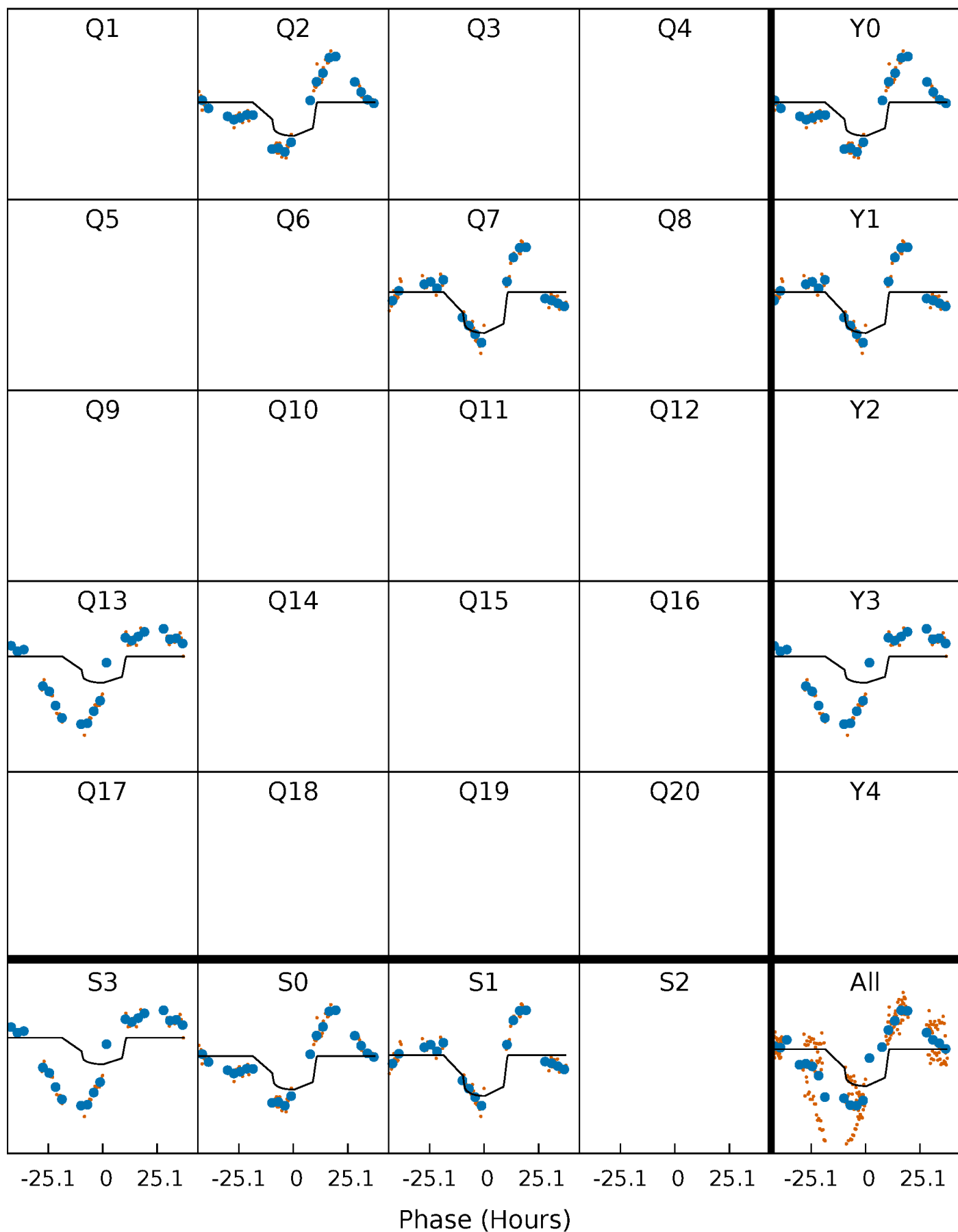
PDC Quarter-Phased Transit Curves

TCE 001294756-03 $P=527.250441$ Days $T_0=175.542850$ (BKJD)



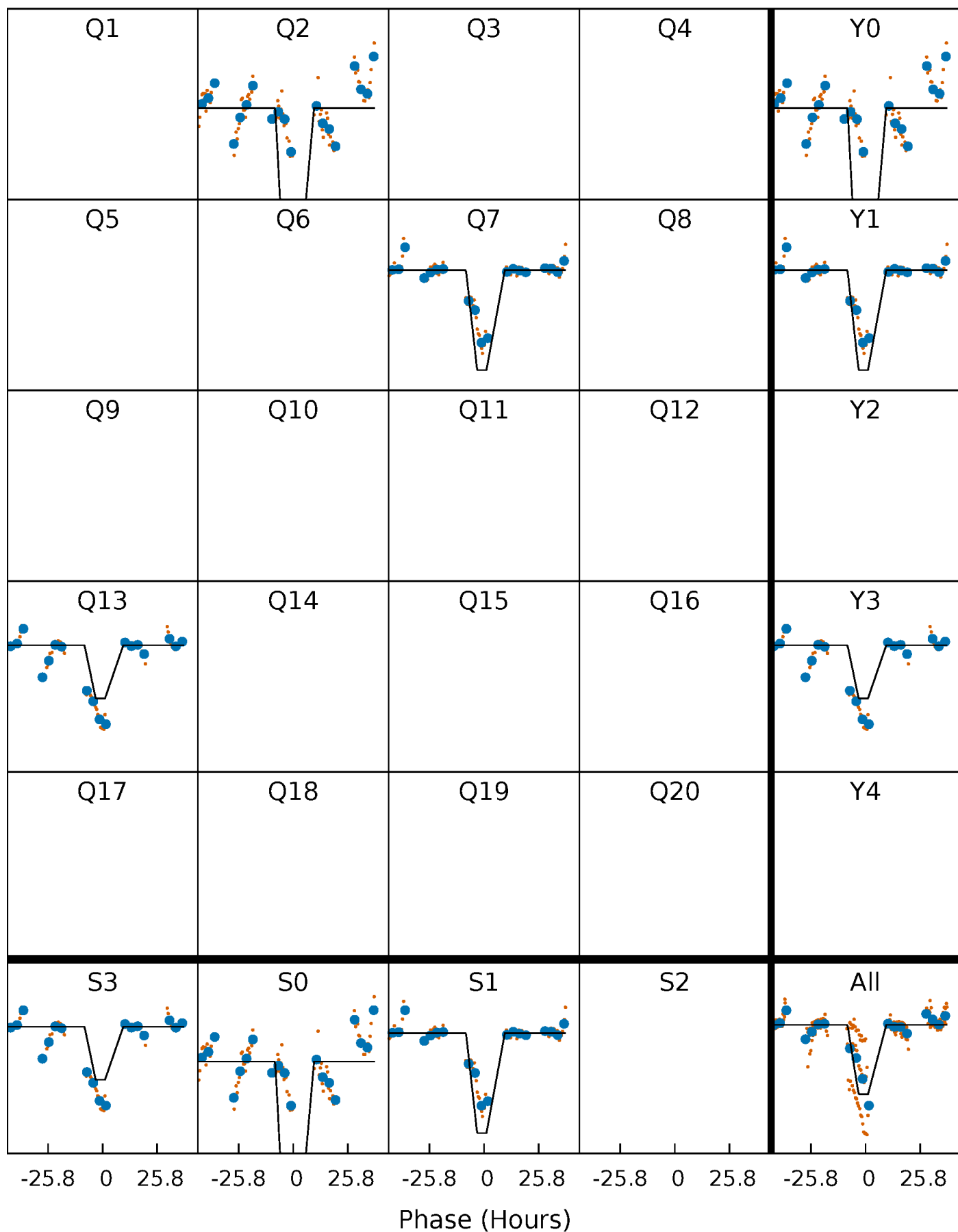
DV Quarter-Phased Transit Curves

TCE 001294756-03 P=527.250441 Days $T_0=175.542850$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

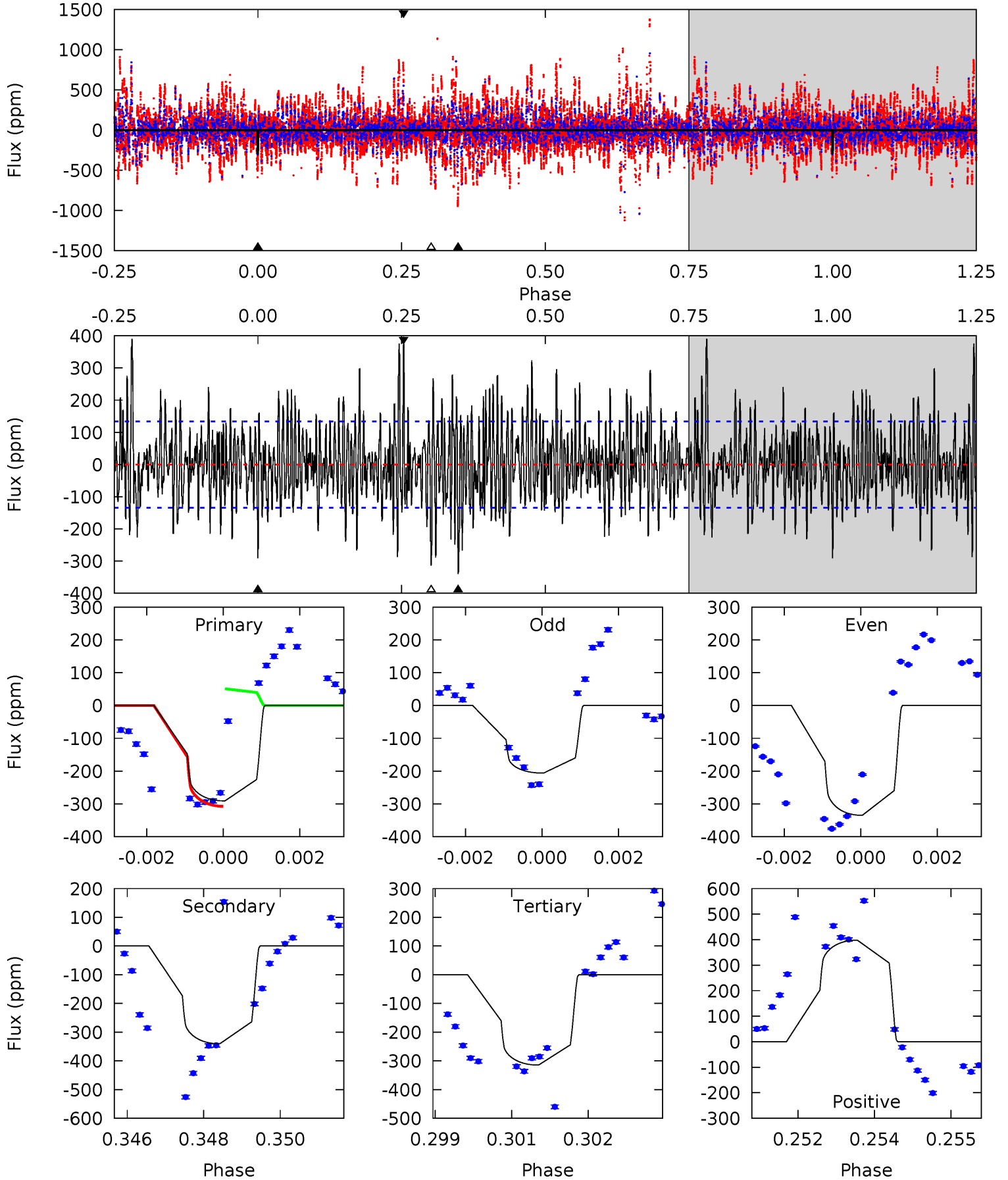
TCE 001294756-03 $P=527.253960$ Days $T_0=175.507825$ (BKJD)



DV Model-Shift Uniqueness Test

001294756-03, P = 527.250441 Days, E = 175.542850 Days

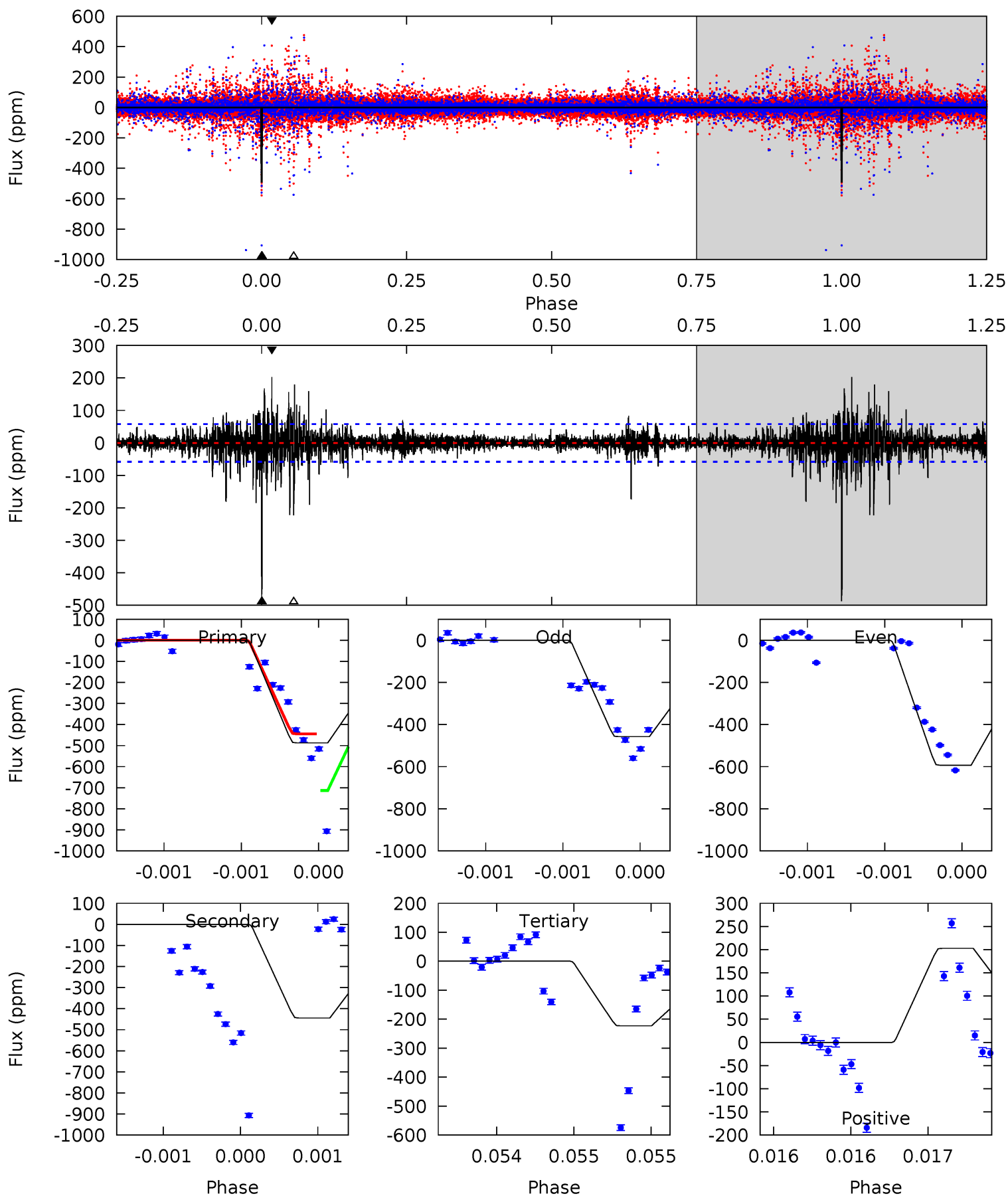
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.6	13.6	12.6	15.9	5.36	3.15	4.06	-0.94	-4.27	1.03	-2.30	2.41	1.10	0.54	3.75



Alt Model-Shift Uniqueness Test

001294756-03, P = 527.253960 Days, E = 175.507825 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
46.2	42.2	21.2	19.2	5.50	3.37	2.00	25.1	27.0	21.0	22.9	9.48	1.13	0.29	5.50



Stellar Parameters For KIC 001294756

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8615^{+238}_{-374}	$3.784^{+0.405}_{-0.135}$	$-0.220^{+0.400}_{-0.350}$	$3.003^{+0.851}_{-1.276}$	$2.002^{+0.411}_{-0.411}$	$0.104^{+0.376}_{-0.047}$
	+3%/-4%	+11%/-4%	+182%/-159%	+28%/-42%	+21%/-21%	+361%/-45%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 001294756-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-340 ± 25	$4.76^{+1.07}_{-1.09}$	703^{+56}_{-71}	9764^{+1016}_{-862}	21974^{+13407}_{-6928}
Alt.	-444 ± 11	$8.30^{+1.62}_{-1.82}$	703^{+58}_{-71}	7479^{+384}_{-387}	9398^{+5327}_{-2509}

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

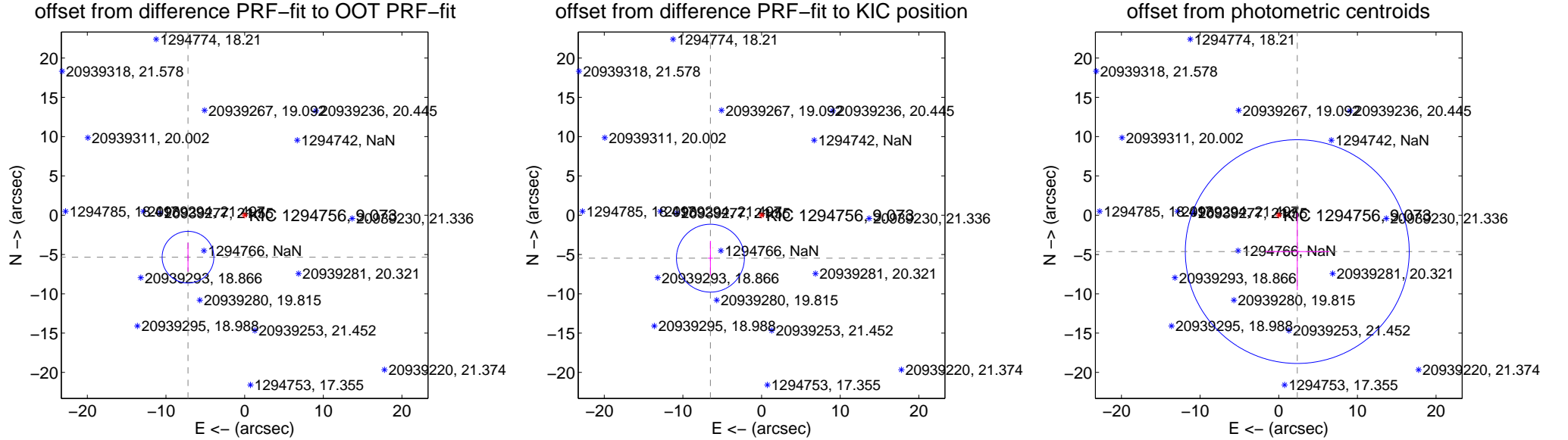
DV Centroid Data

Supplemental centroid analysis for 001294756-03. **Kepler magnitude: 9.07.** Transit SNR 5.95

There are 0 quarters with good PRF difference image offsets

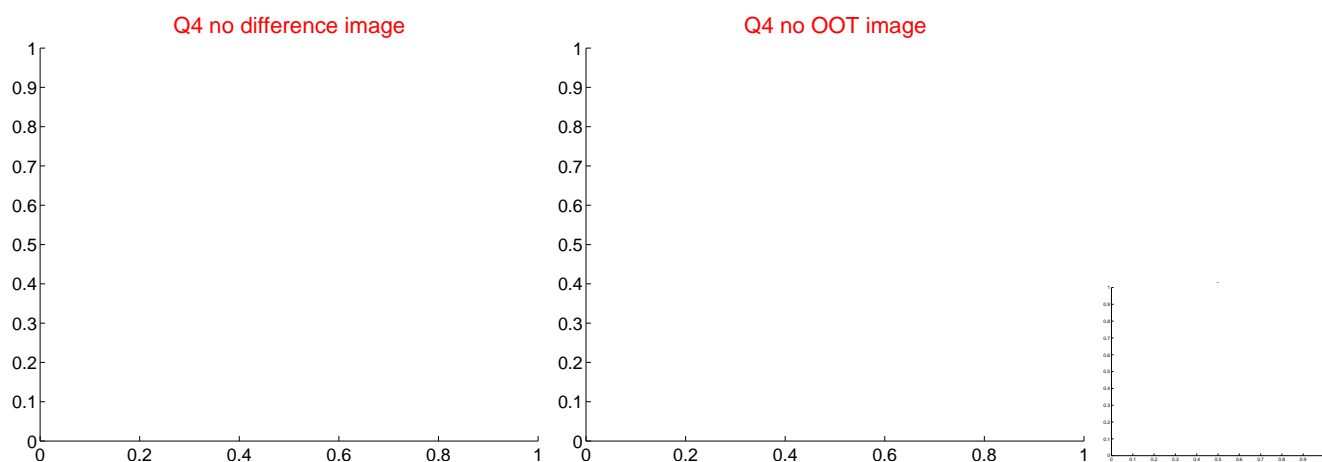
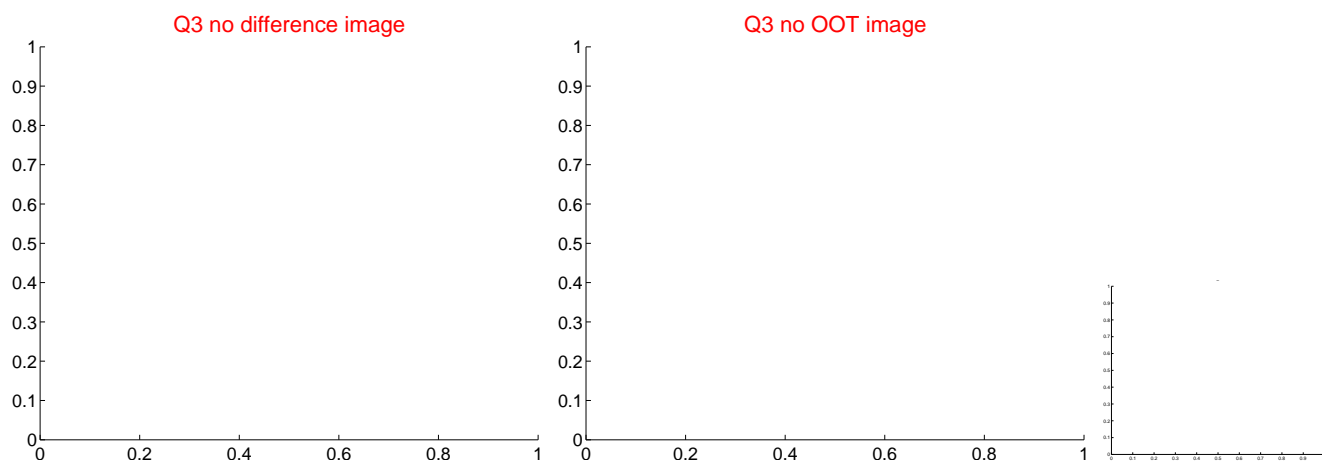
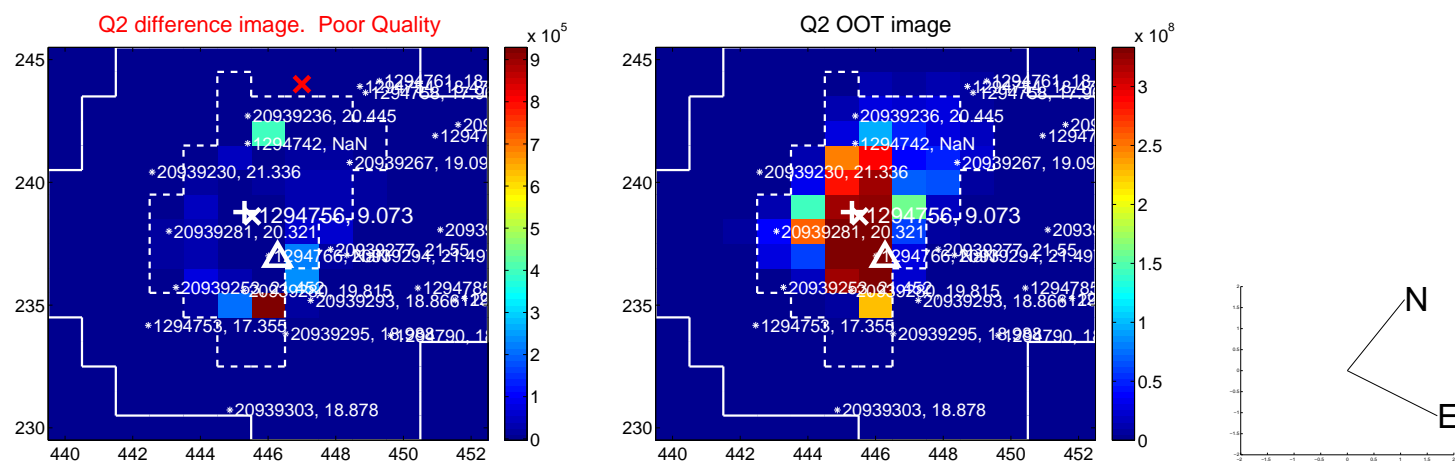
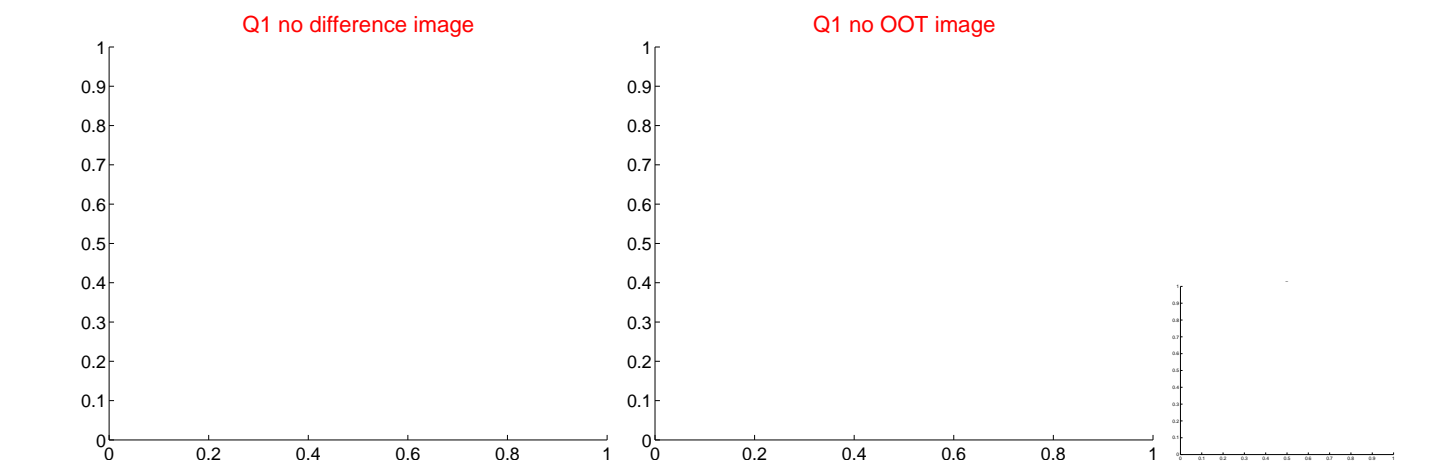
The direct PRF centroid is offset from the target star catalog position by about 0.72 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.963 \pm 1.096	8.18	7.199 \pm 0.117	-5.339 \pm 1.833
PRF-fit source offset from KIC position	8.494 \pm 1.439	5.90	6.500 \pm 0.314	-5.468 \pm 2.204
photometric centroid source offset	5.19 \pm 4.74	1.09	-2.35 \pm 4.08	-4.63 \pm 4.90



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

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



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

Q5 no difference image



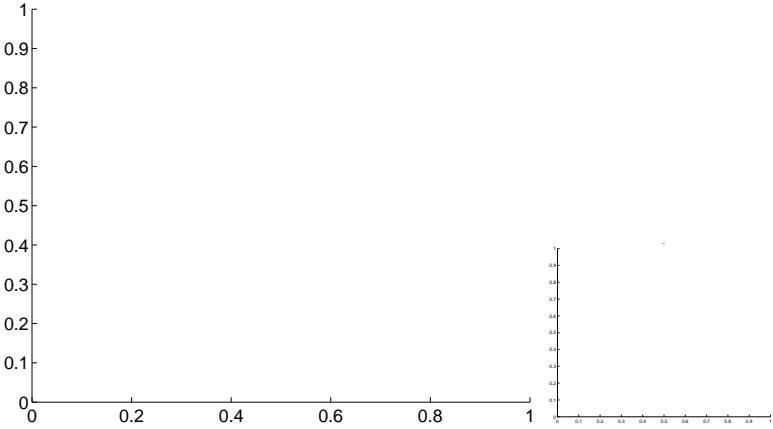
Q5 no OOT image



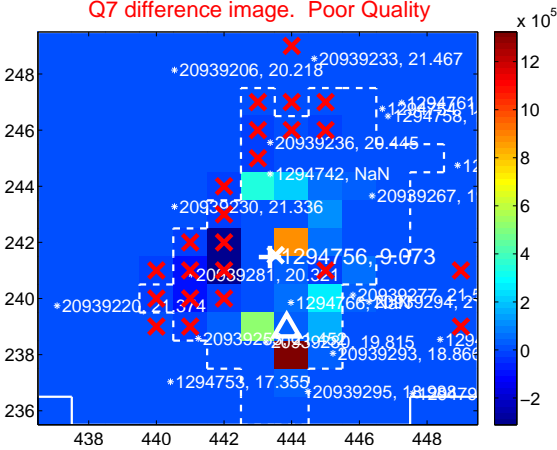
Q6 no difference image



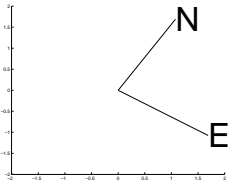
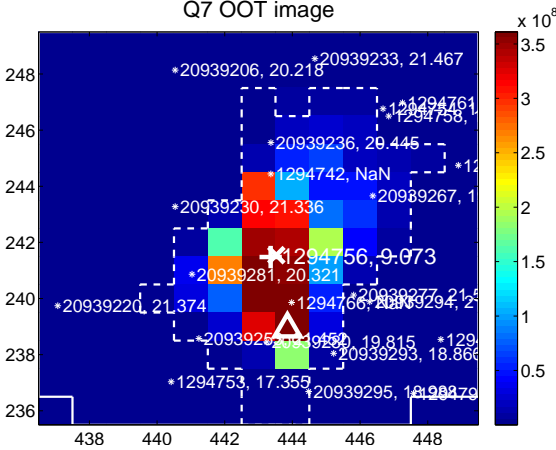
Q6 no OOT image



Q7 difference image. Poor Quality



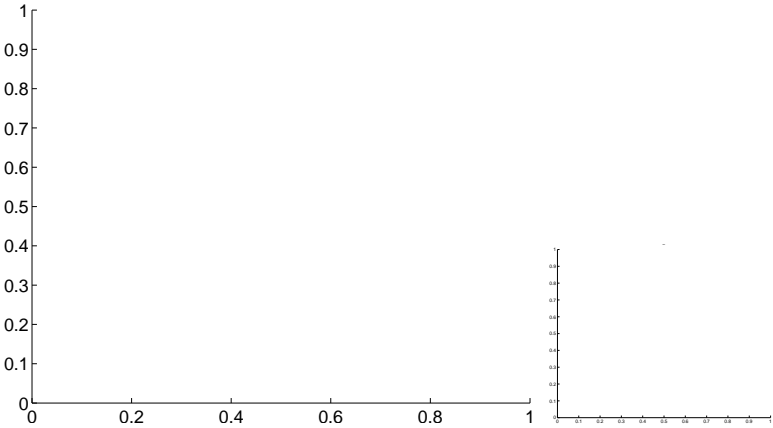
Q7 OOT image



Q8 no difference image



Q8 no OOT image



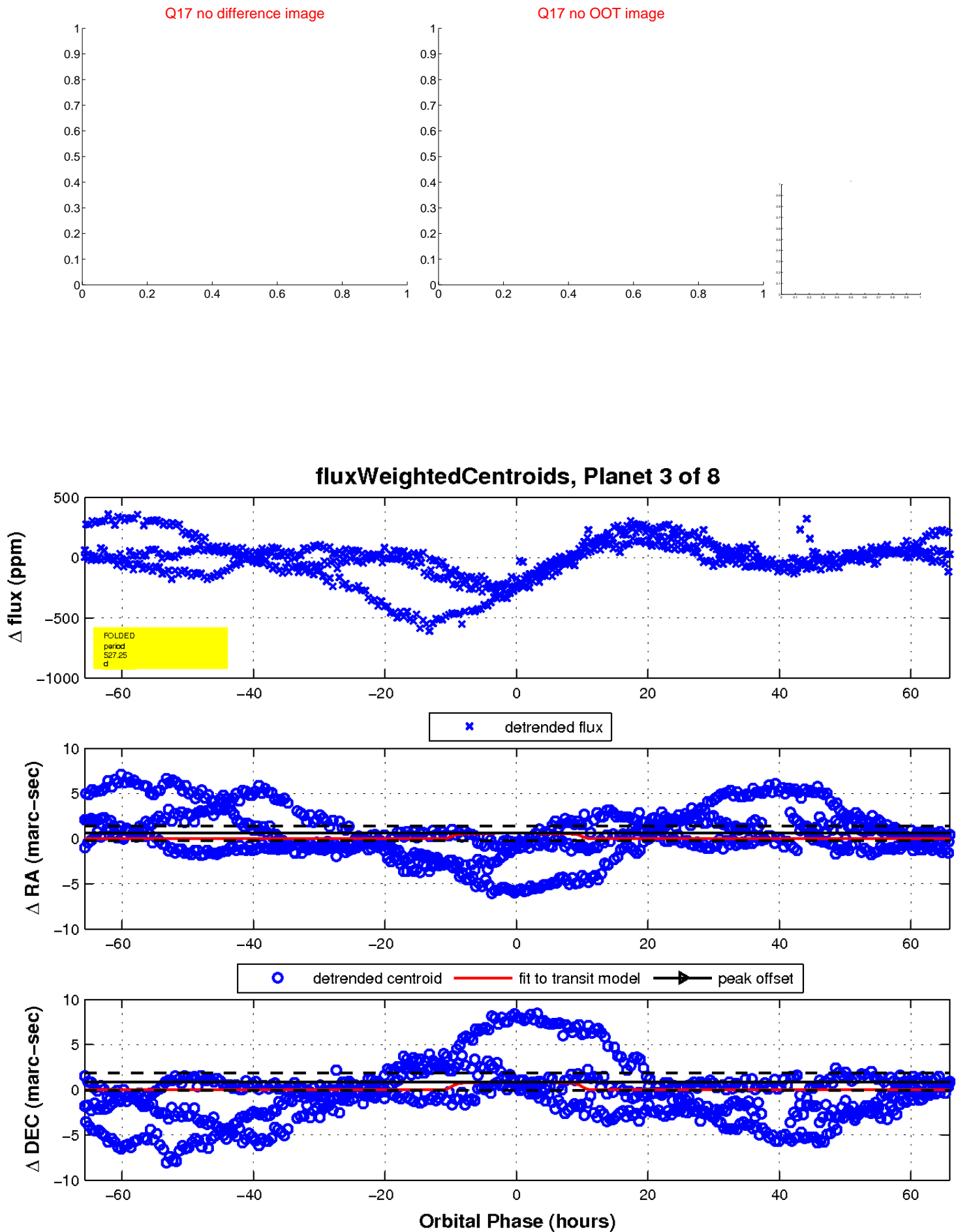
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

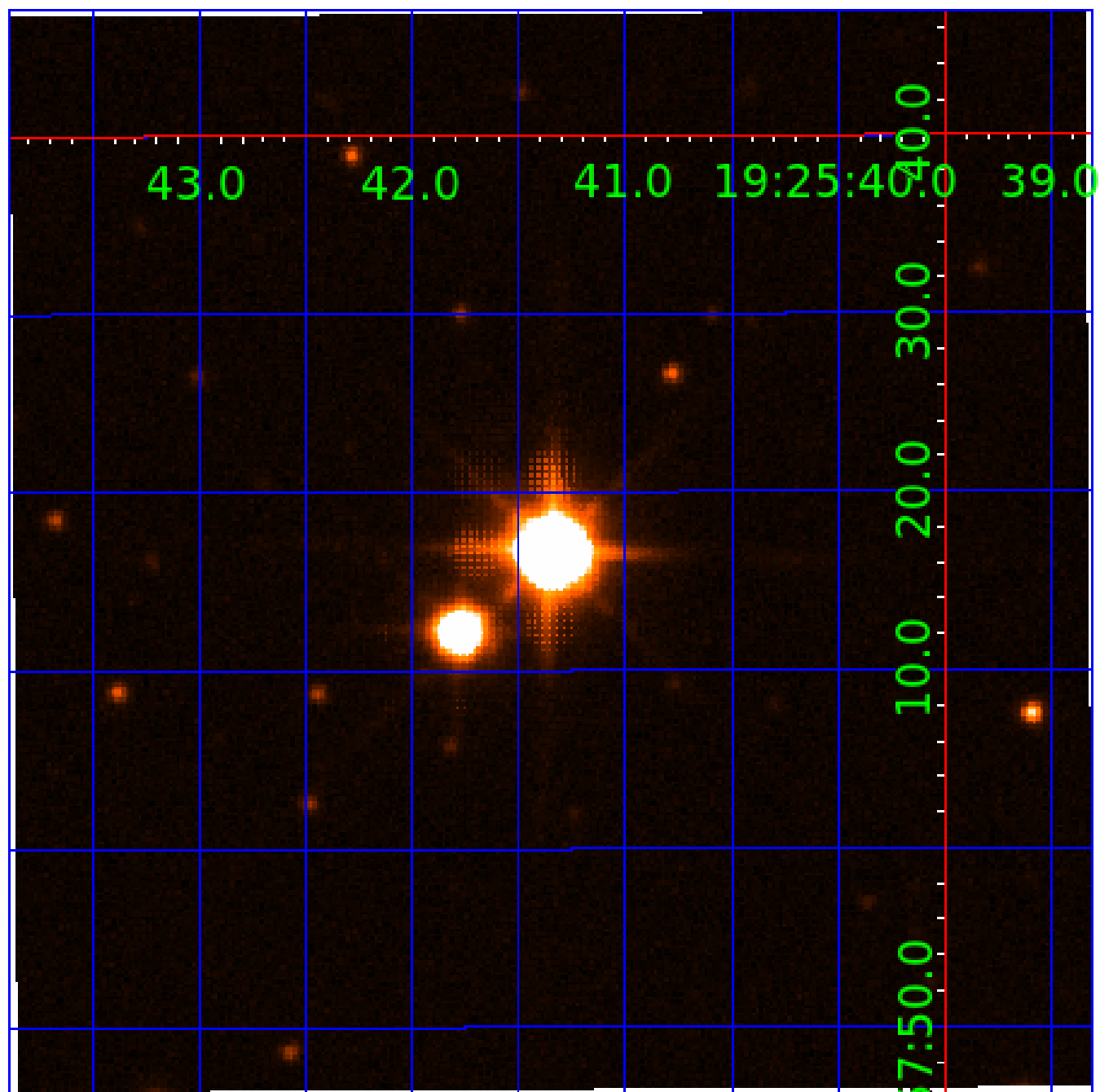


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 001294756

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})
001294756-01	OBS	No	0.795291	131.971363	4.7	2.979	11.8	9.2	3.00	8615	0.75	99292.83
001294756-02	OBS	No	327.663741	259.641741	232.4	11.955	16.0	7.2	3.00	8615	4.89	32.39
001294756-03	OBS	No	527.250441	175.542850	196.8	21.992	10.7	6.0	3.00	8615	4.99	17.18
001294756-04	OBS	No	193.299601	232.194176	162.6	3.125	12.5	8.5	3.00	8615	4.17	65.46
001294756-05	OBS	No	252.752885	302.211336	68.5	23.399	10.8	3.5	3.00	8615	2.84	45.78
001294756-06	OBS	No	400.264020	333.657989	264.4	12.736	10.7	7.0	3.00	8615	5.22	24.80
001294756-07	OBS	No	546.484228	246.698510	353.9	14.817	7.8	8.1	3.00	8615	6.80	16.38
001294756-08	OBS	No	278.183321	251.694824	98.3	10.703	9.5	4.1	3.00	8615	3.46	40.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
001294756-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
001294756-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—INCONSISTENT_TRANS—CENT_SATURATED
001294756-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_SATURATED
001294756-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—CENT_SATURATED
001294756-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
001294756-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_SATURATED
001294756-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—INCONSISTENT_TRANS—CENT_SATURATED
001294756-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_SATURATED

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

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

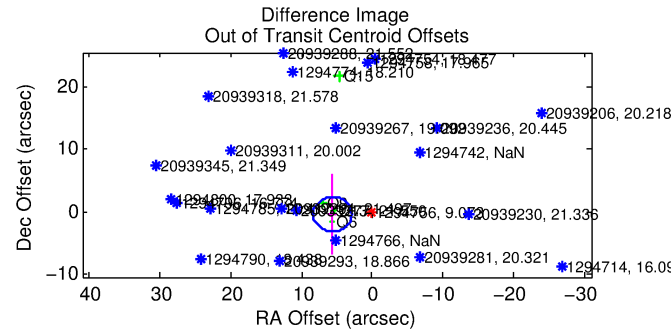
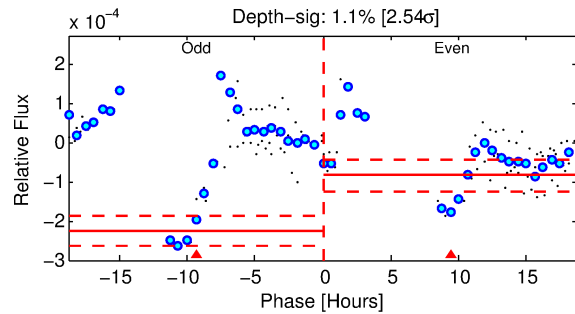
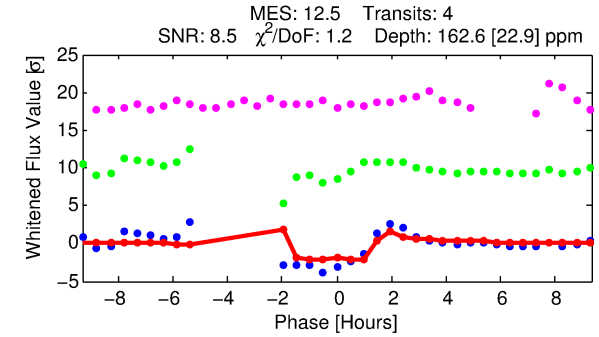
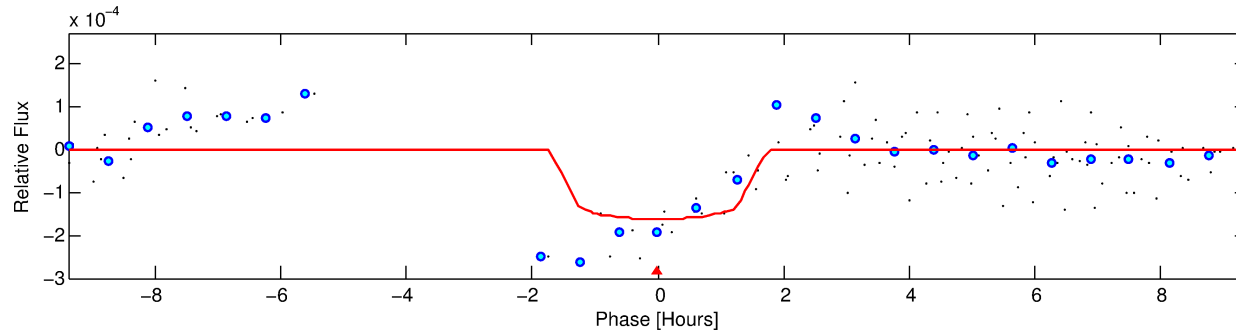
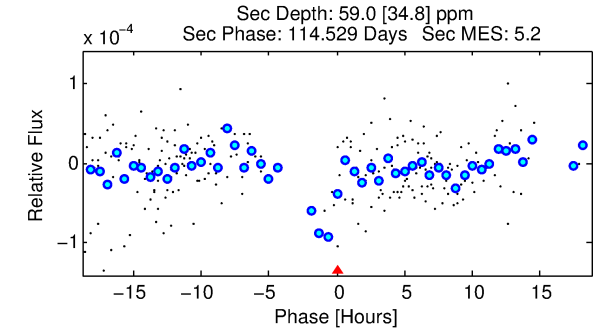
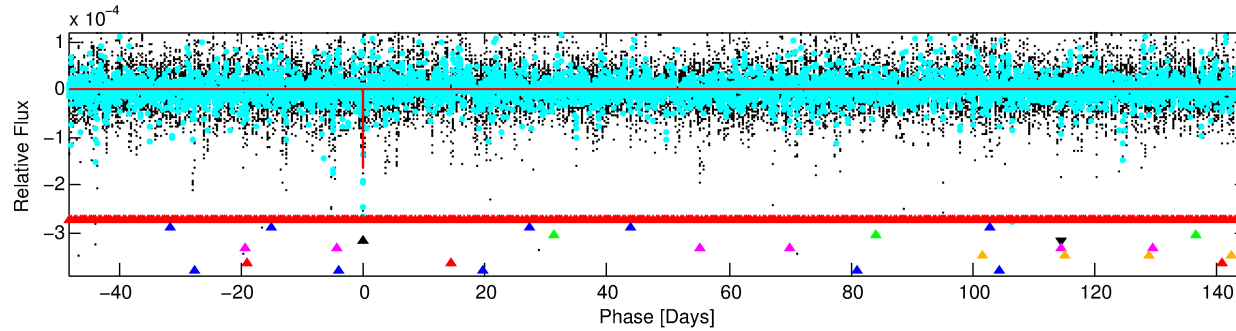
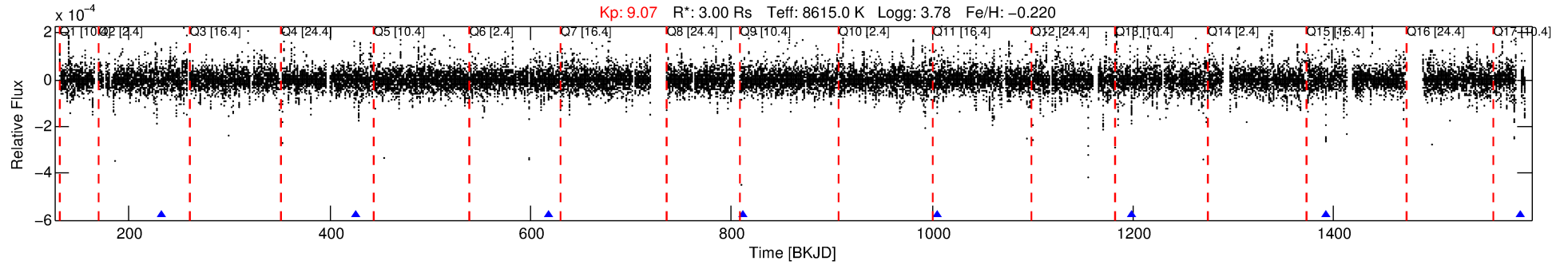
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 001294756-04

No Significant Match Found

DV One-Page Summary

KIC: 1294756 Candidate: 4 of 8 Period: 193.300 d



DV Fit Results:

Period = 193.29960 [0.00214] d
Epoch = 232.1942 [0.0103] BKJD
Rp/R* = 0.0127 [0.0060]
a/R* = 315.77 [912.22]
b = 0.76 [1.60]
Seff = 65.46 [46.14]
Teq = 725 [128] K
Rp = 4.17 [2.65] Re
a = 0.8246 [0.3468] AU
Ag = 1267.52 [1654.14] [0.77σ]
Teff = 6691 [1883] K [3.16σ]

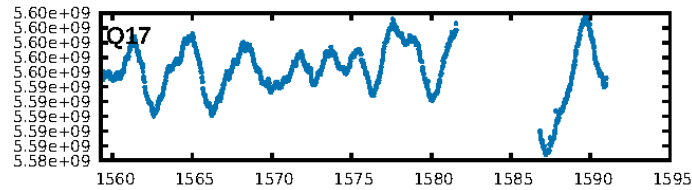
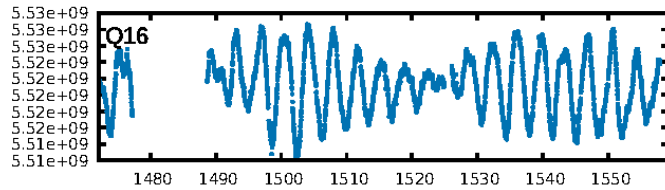
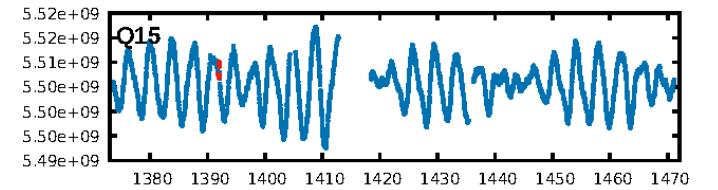
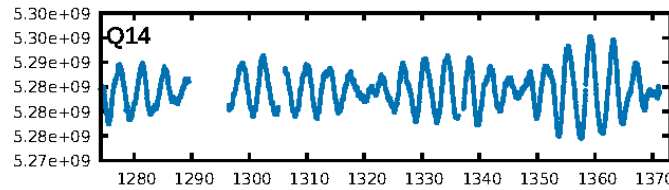
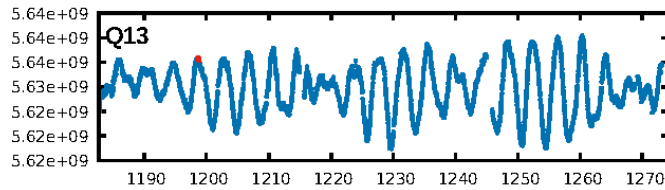
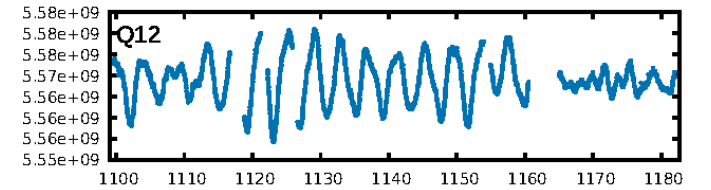
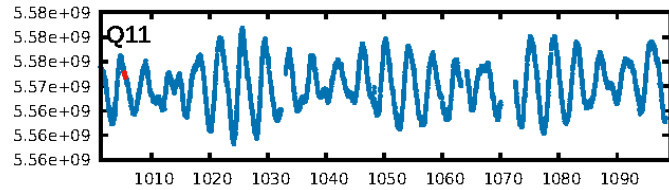
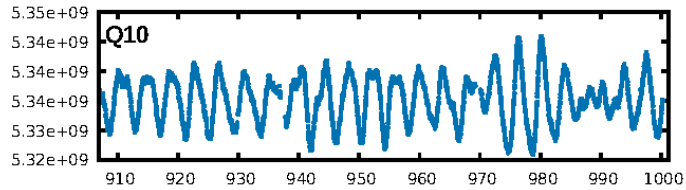
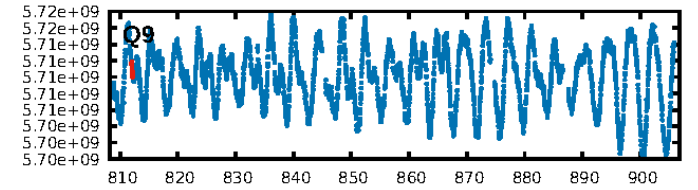
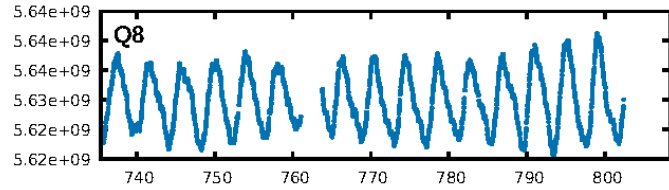
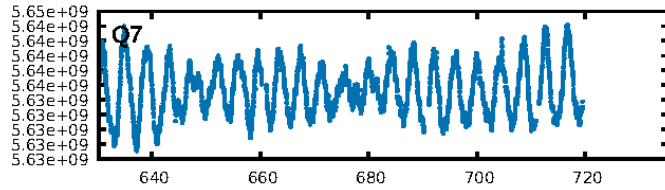
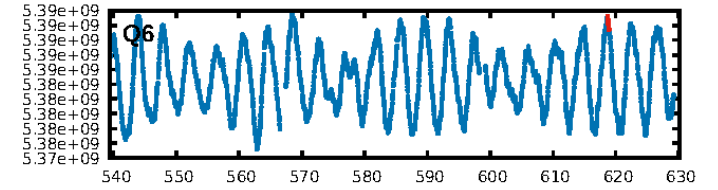
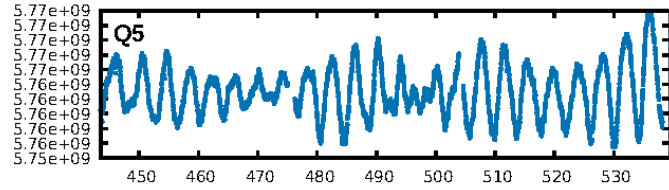
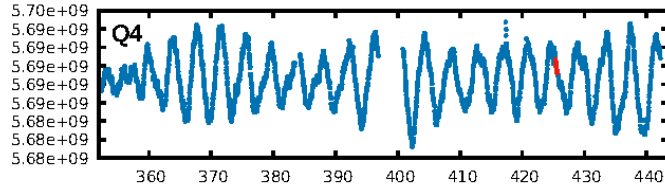
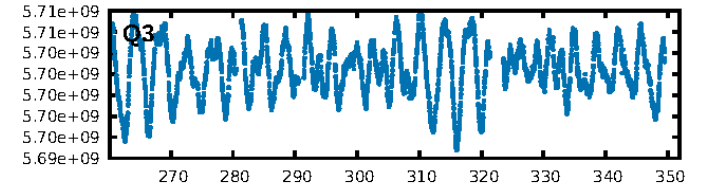
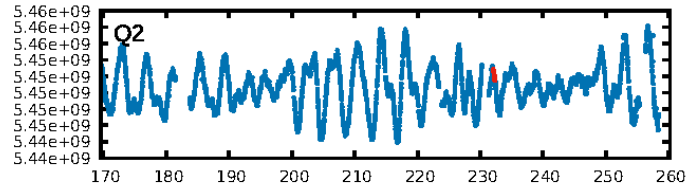
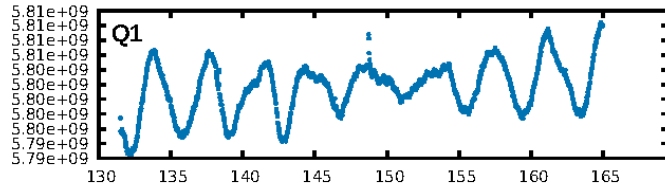
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [1070.12σ]
LongPeriod-sig: 100.0% [60.44σ]
ModelChiSquare2-sig: 20.6%
ModelChiSquareGof-sig: 96.6%
Bootstrap-pfa: 4.07e-17
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: N/A
Centroid-sig: 49.6%
Centroid-so: 0.753 arcsec [0.37σ]
OotOffset-rm: 5.666 arcsec [6.14σ]
KicOffset-rm: 7.055 arcsec [2.36σ]
OotOffset-st: 1/1/0/2 [4]
KicOffset-st: 1/1/0/2 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 0.00 [0/6]

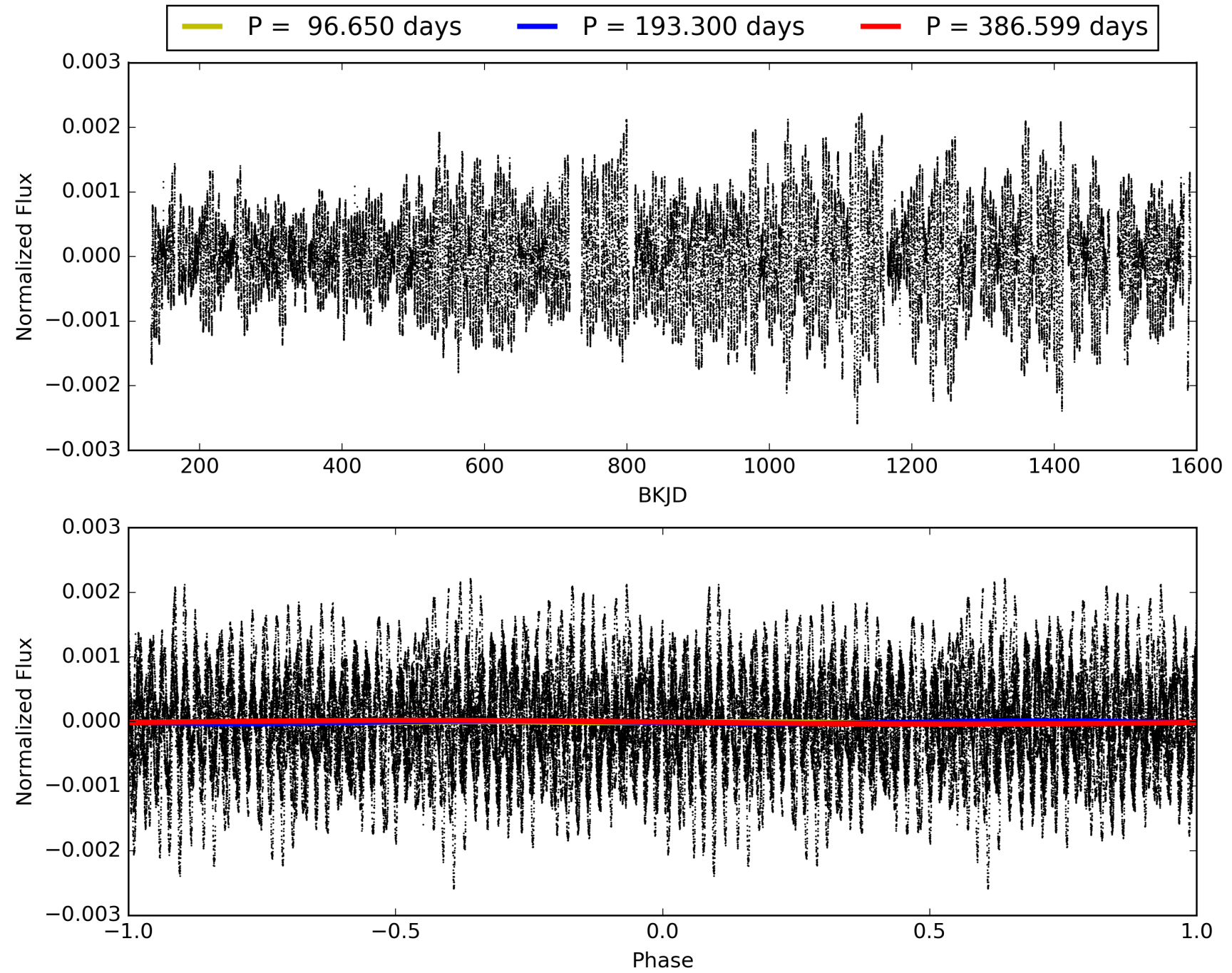
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 00:08:04 Z

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

TCE 001294756-04, PDC Light Curves

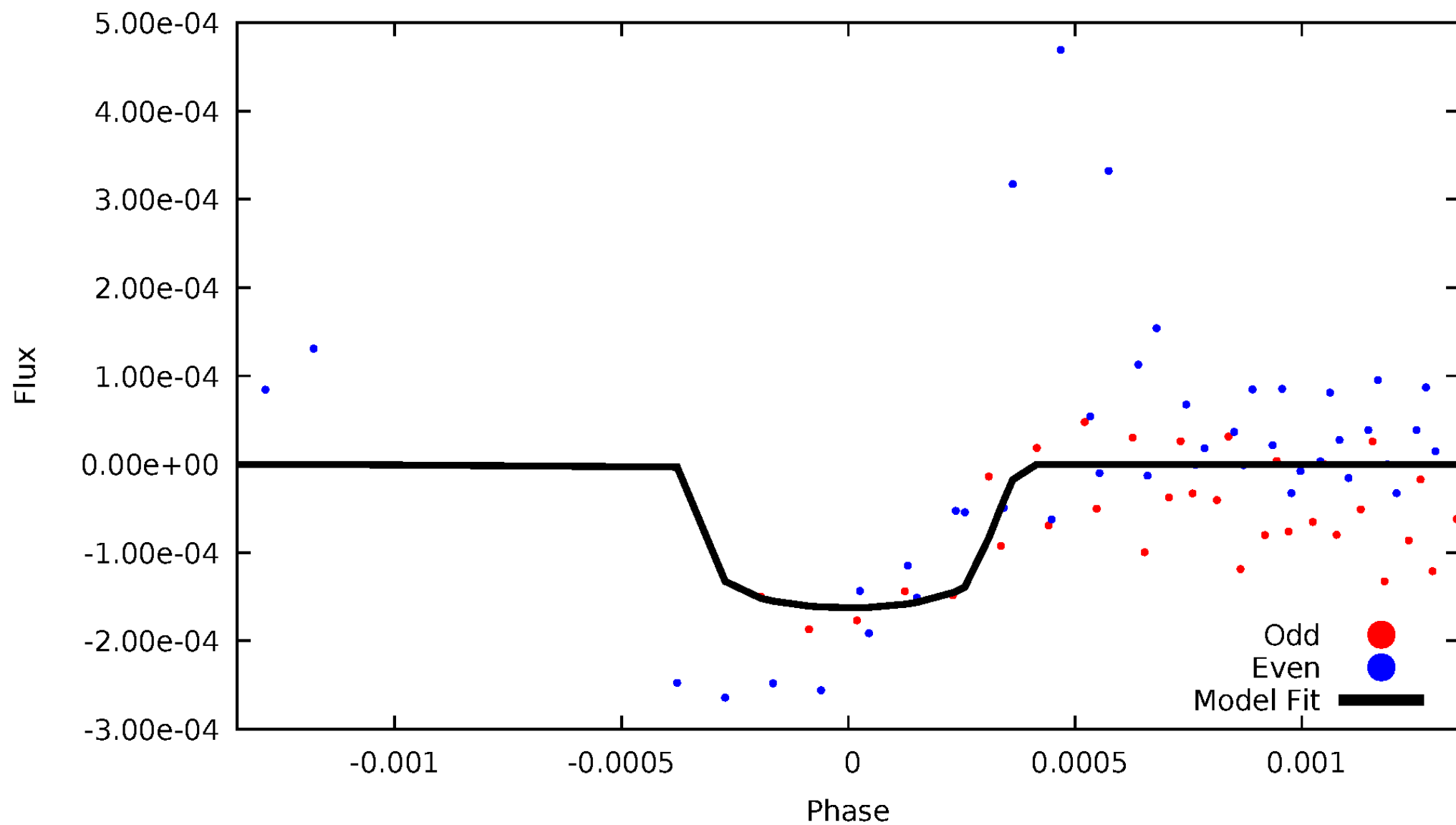


TCE 001294756-04



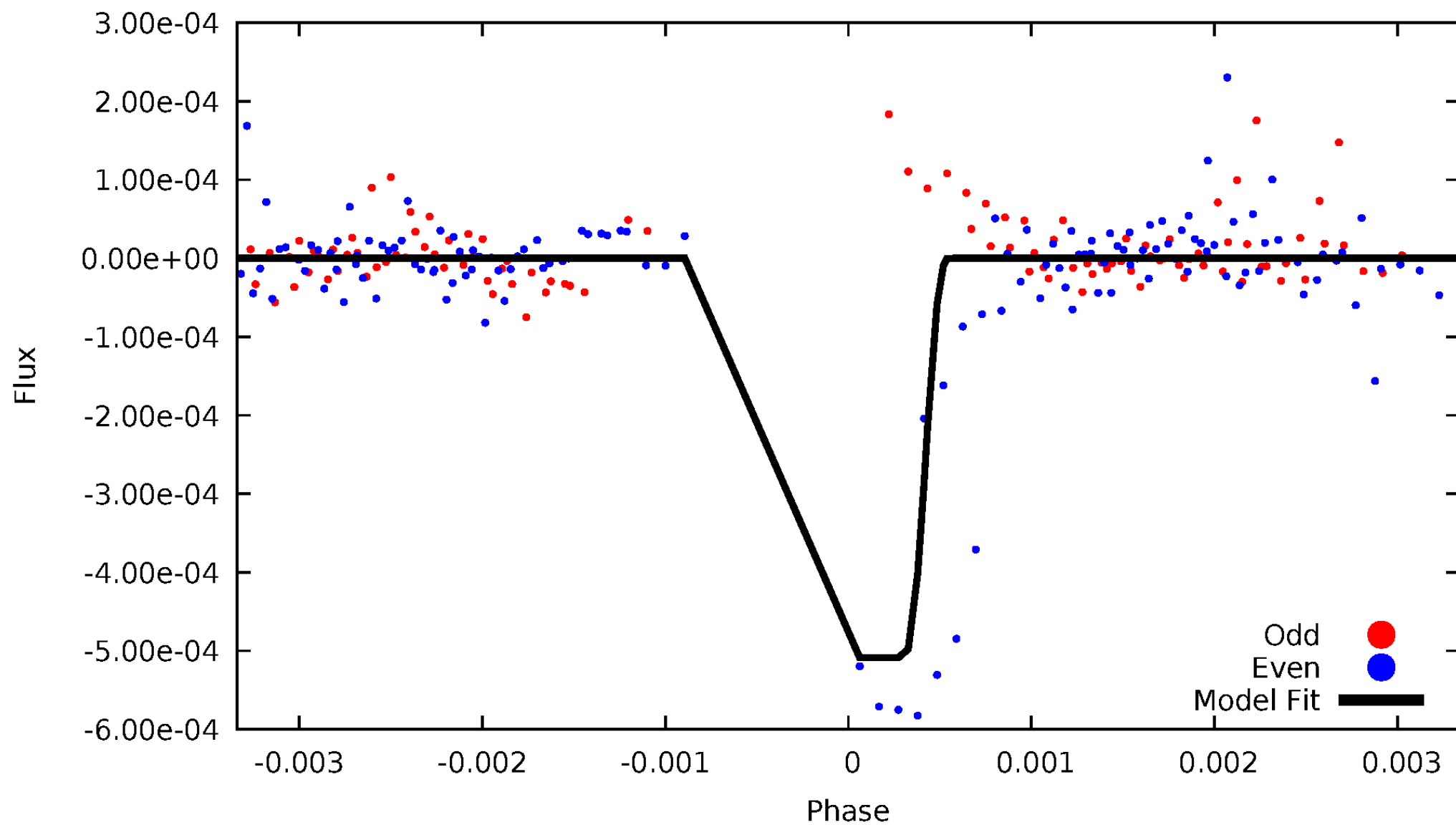
DV Odd/Even

TCE 001294756-04



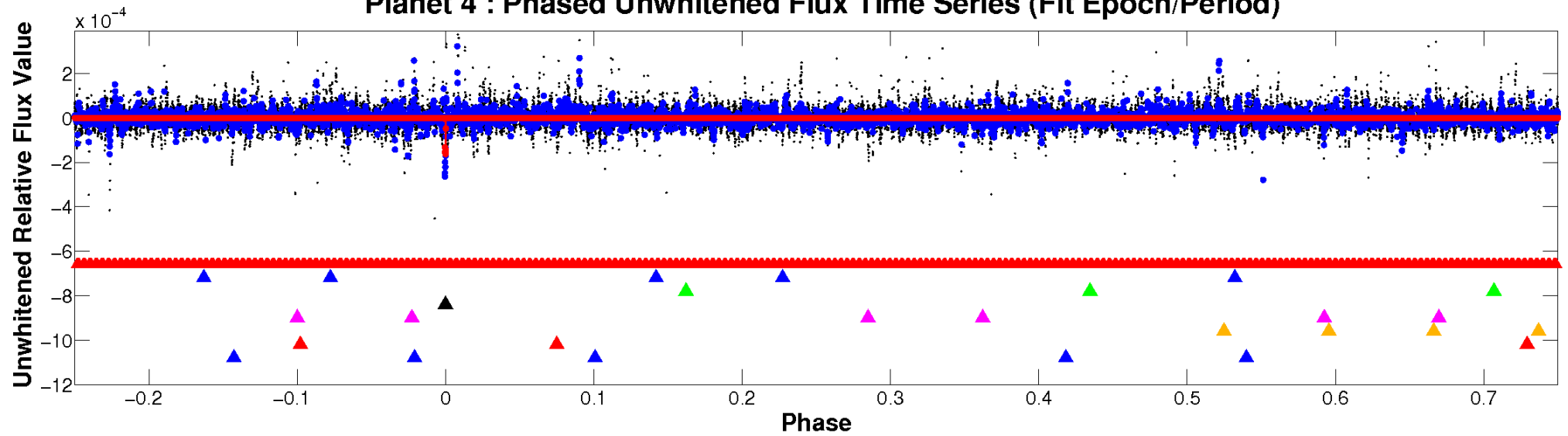
ALT Odd/Even

TCE 001294756-04

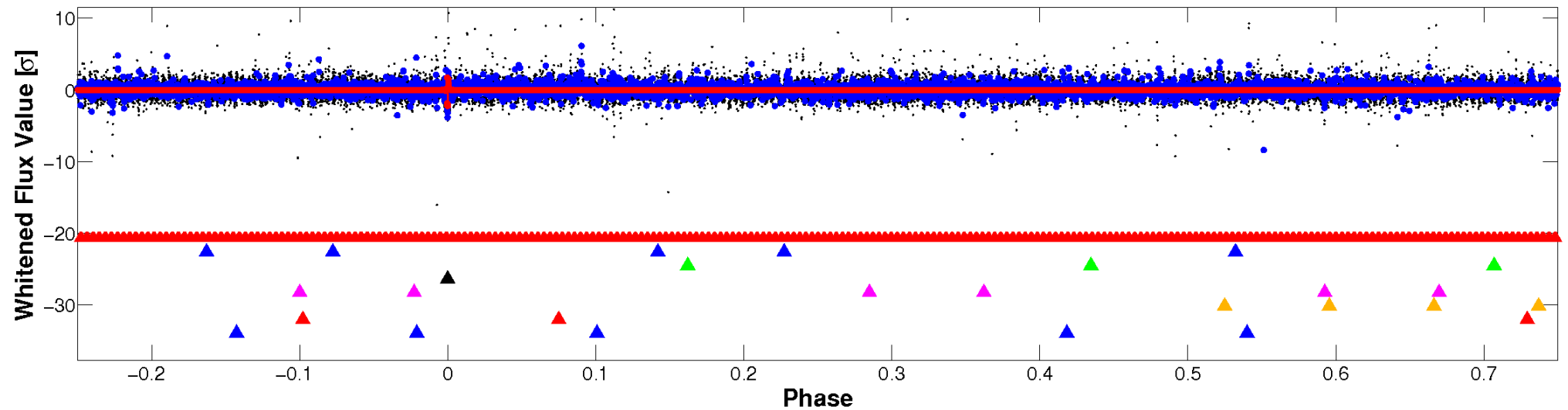


Non-Whitened Vs. Whitened Light Curve

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

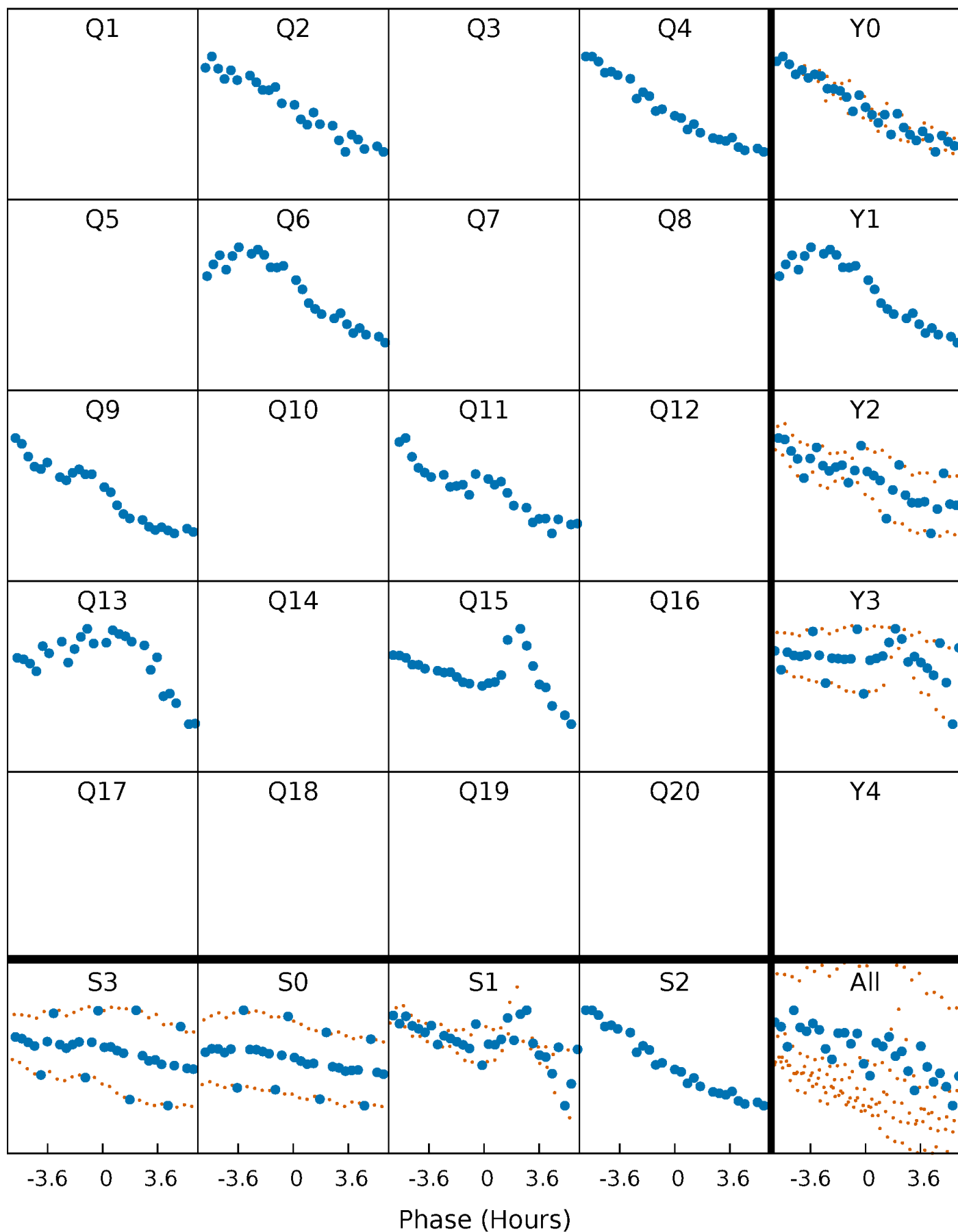


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



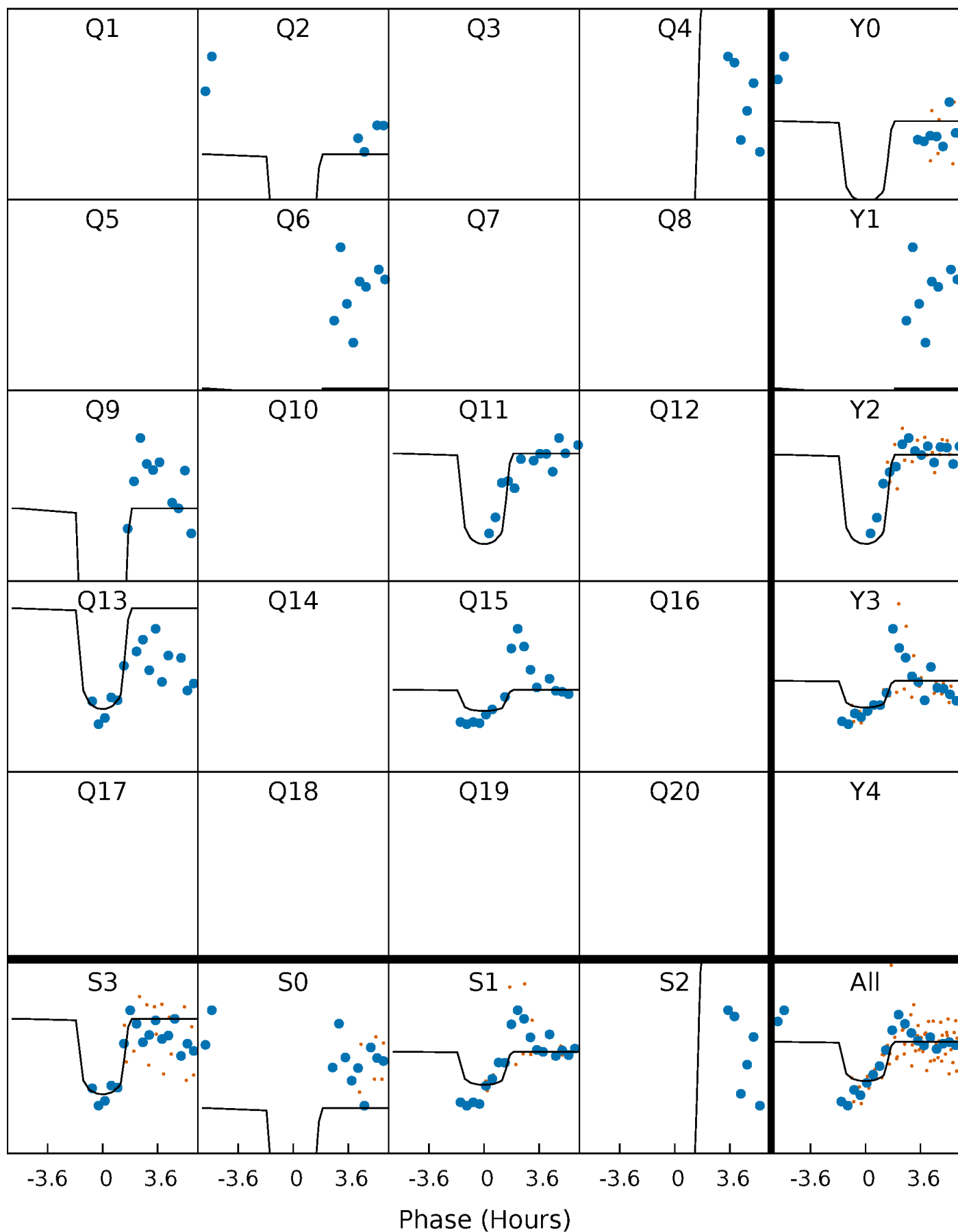
PDC Quarter-Phased Transit Curves

TCE 001294756-04 P=193.299601 Days $T_0=232.194176$ (BKJD)



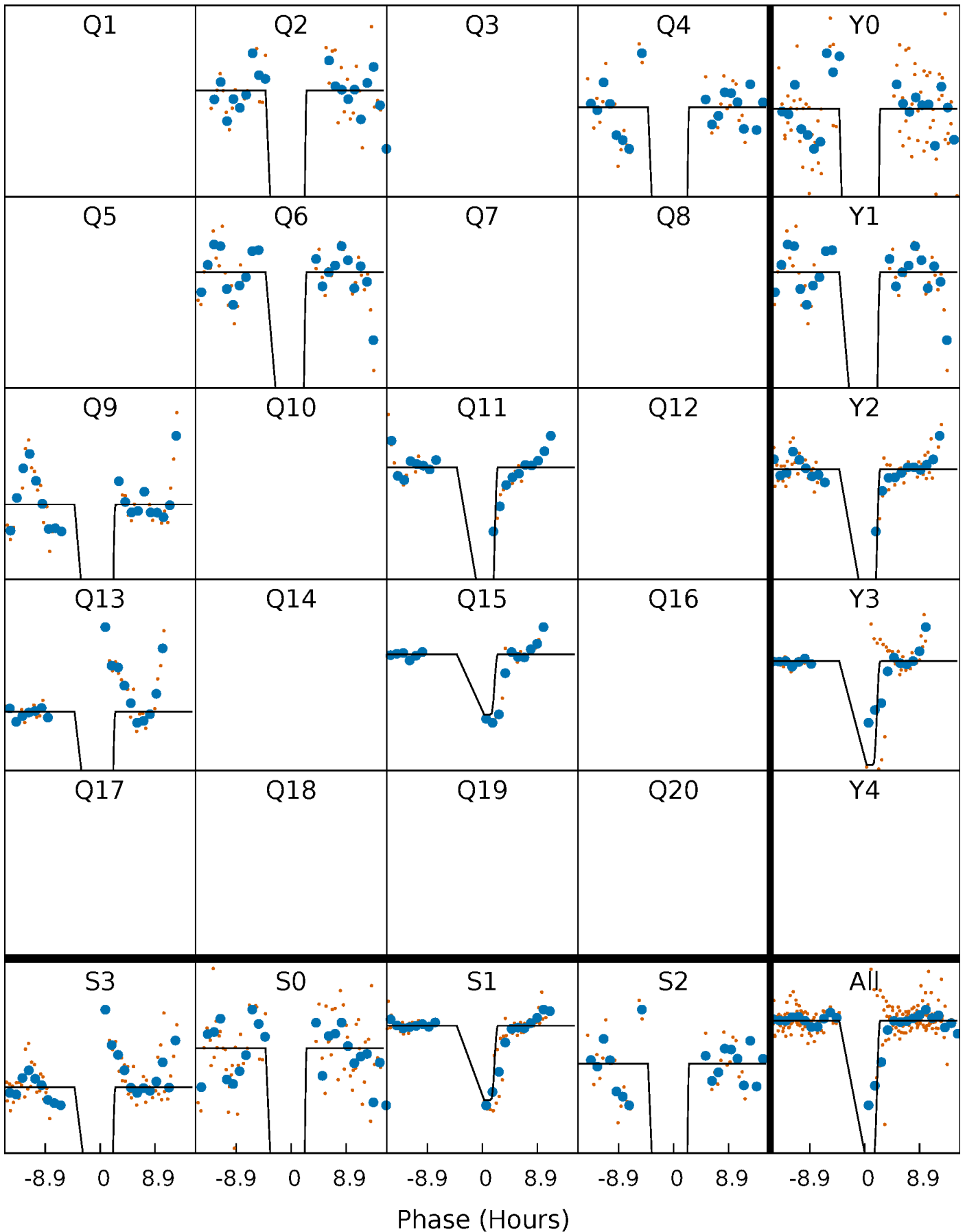
DV Quarter-Phased Transit Curves

TCE 001294756-04 P=193.299601 Days $T_0=232.194176$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

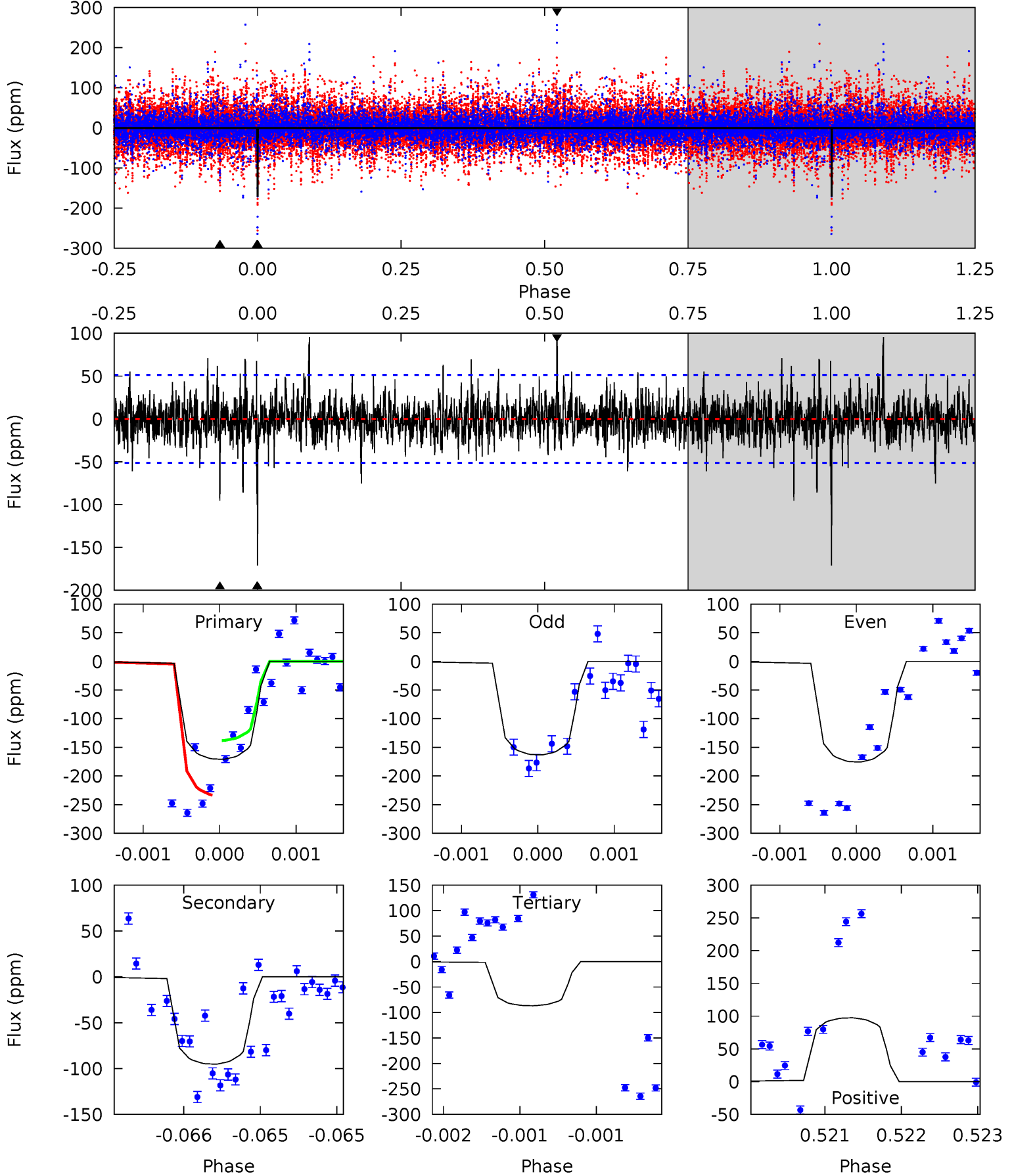
TCE 001294756-04 P=193.294594 Days $T_0=232.139189$ (BKJD)



DV Model-Shift Uniqueness Test

001294756-04, P = 193.299601 Days, E = 38.894575 Days

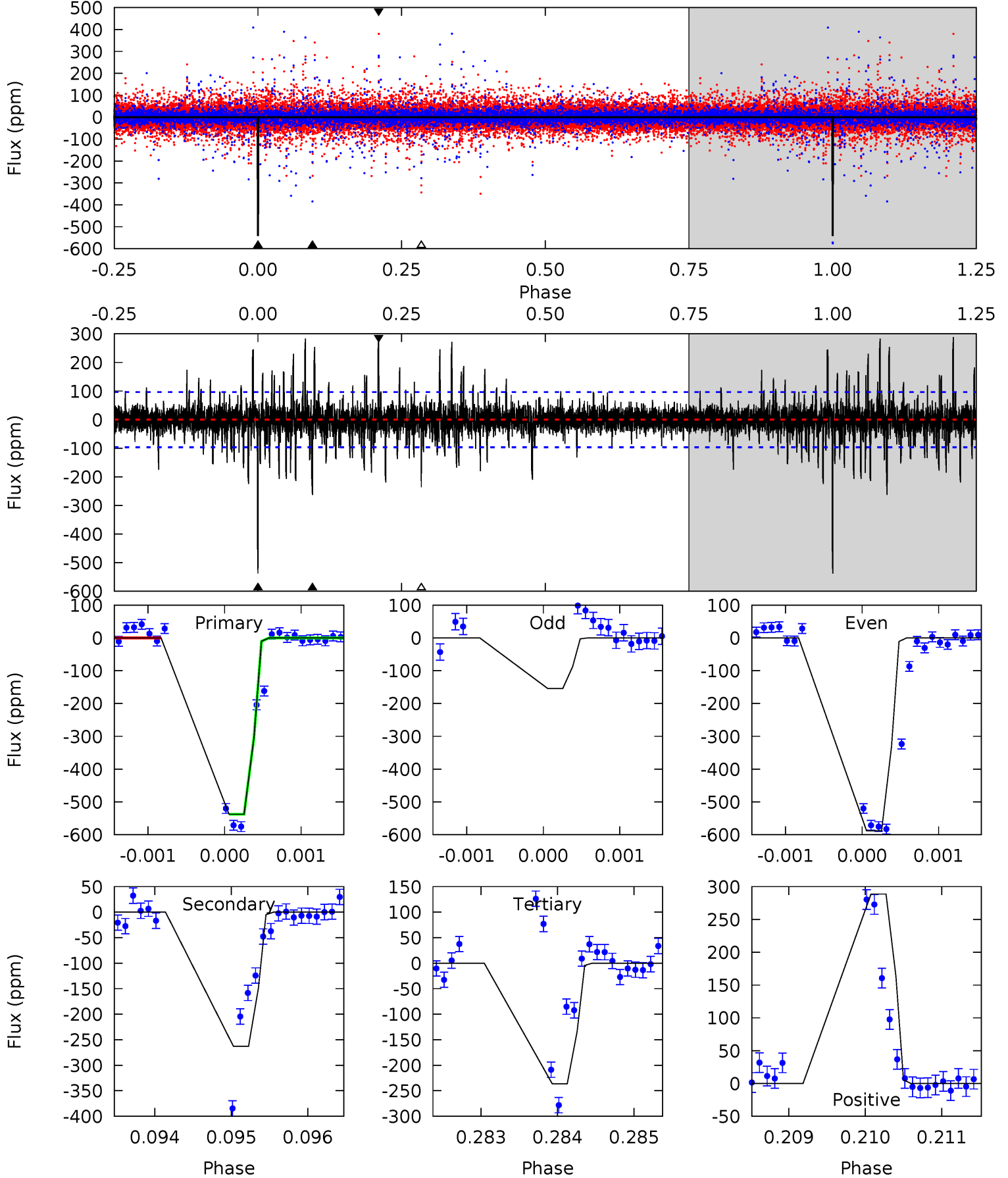
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.4	10.3	9.34	10.5	5.53	3.42	1.60	9.07	7.92	0.91	-0.24	0.64	0.95	0.36	4.47



Alt Model-Shift Uniqueness Test

001294756-04, P = 193.294594 Days, E = 38.844595 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.3	14.8	13.3	16.3	5.44	3.27	1.44	17.0	14.0	1.51	-1.45	13.8	0.74	0.35	0



Stellar Parameters For KIC 001294756

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8615^{+238}_{-374}	$3.784^{+0.405}_{-0.135}$	$-0.220^{+0.400}_{-0.350}$	$3.003^{+0.851}_{-1.276}$	$2.002^{+0.411}_{-0.411}$	$0.104^{+0.376}_{-0.047}$
	+3%/-4%	+11%/-4%	+182%/-159%	+28%/-42%	+21%/-21%	+361%/-45%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 001294756-04 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-95 ± 9	$3.81^{+2.36}_{-1.84}$	979^{+89}_{-105}	7266^{+3886}_{-1389}	2507^{+6952}_{-1565}
Alt.	-263 ± 18	$6.77^{+2.51}_{-2.20}$	978^{+86}_{-107}	7043^{+1474}_{-873}	2224^{+2289}_{-1082}

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

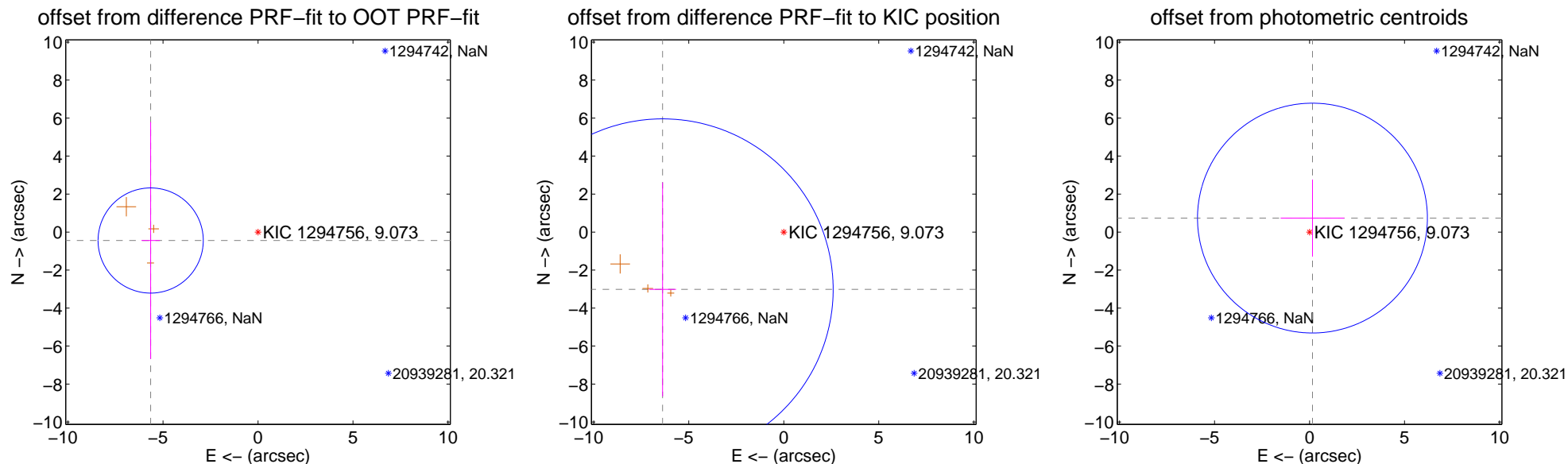
DV Centroid Data

Supplemental centroid analysis for 001294756-04. **Kepler magnitude: 9.07.** Transit SNR 8.46

There are 0 quarters with good PRF difference image offsets

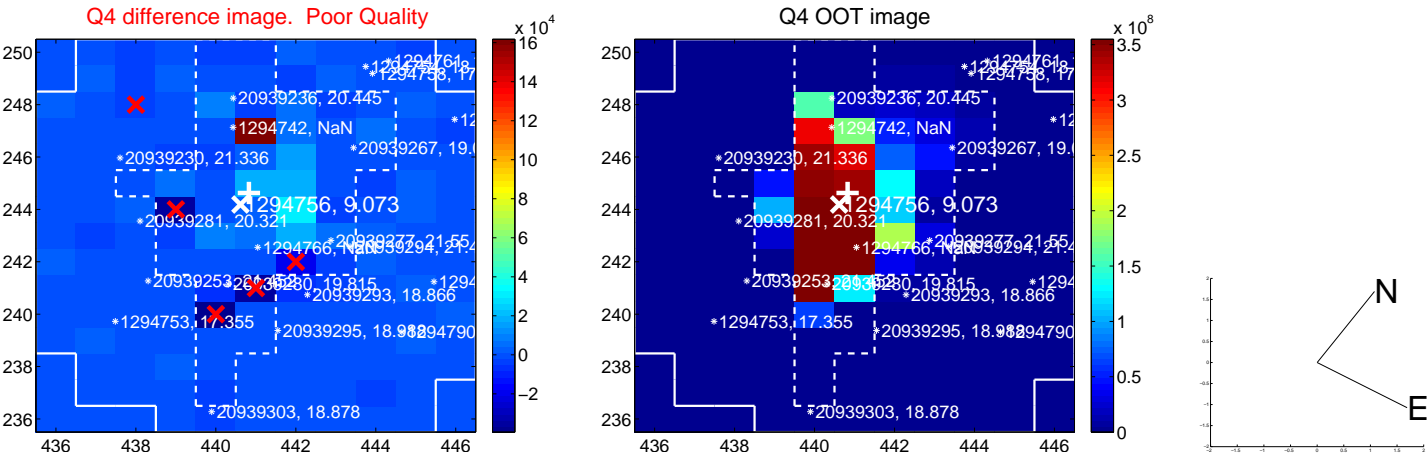
The direct PRF centroid is offset from the target star catalog position by about 0.85 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.666 ± 0.923	6.14	5.648 ± 0.484	-0.444 ± 6.235
PRF-fit source offset from KIC position	7.055 ± 2.992	2.36	6.377 ± 0.709	-3.017 ± 5.632
photometric centroid source offset	0.75 ± 2.02	0.37	-0.15 ± 1.68	0.74 ± 2.03



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

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

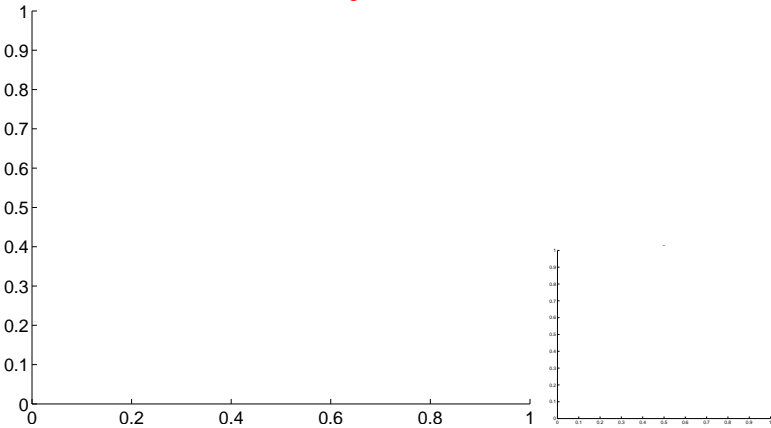


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

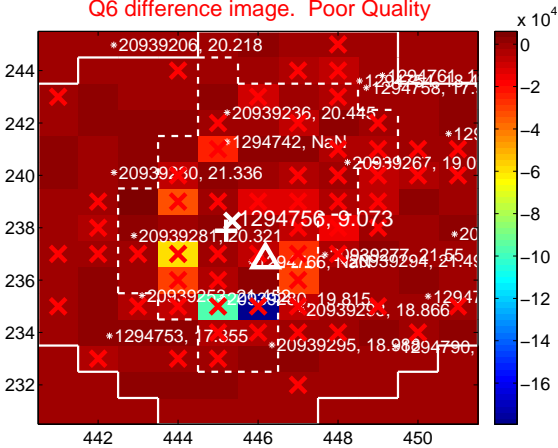
Q5 no difference image



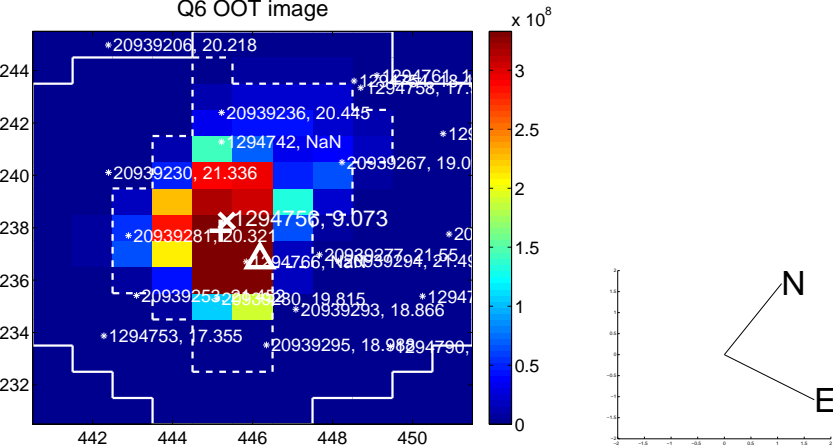
Q5 no OOT image



Q6 difference image. Poor Quality



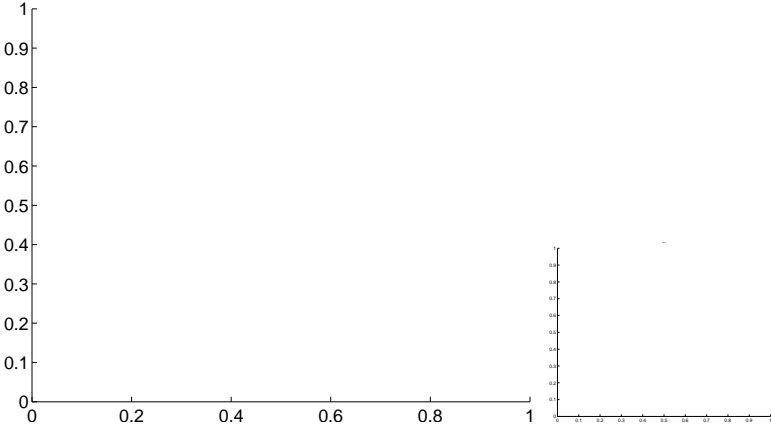
Q6 OOT image



Q7 no difference image



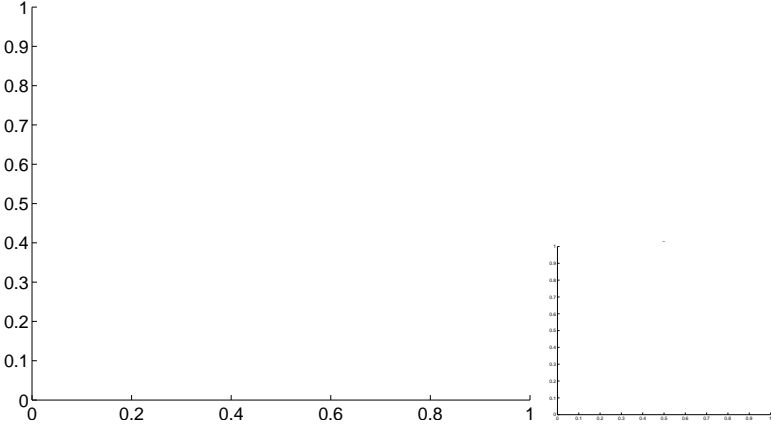
Q7 no OOT image



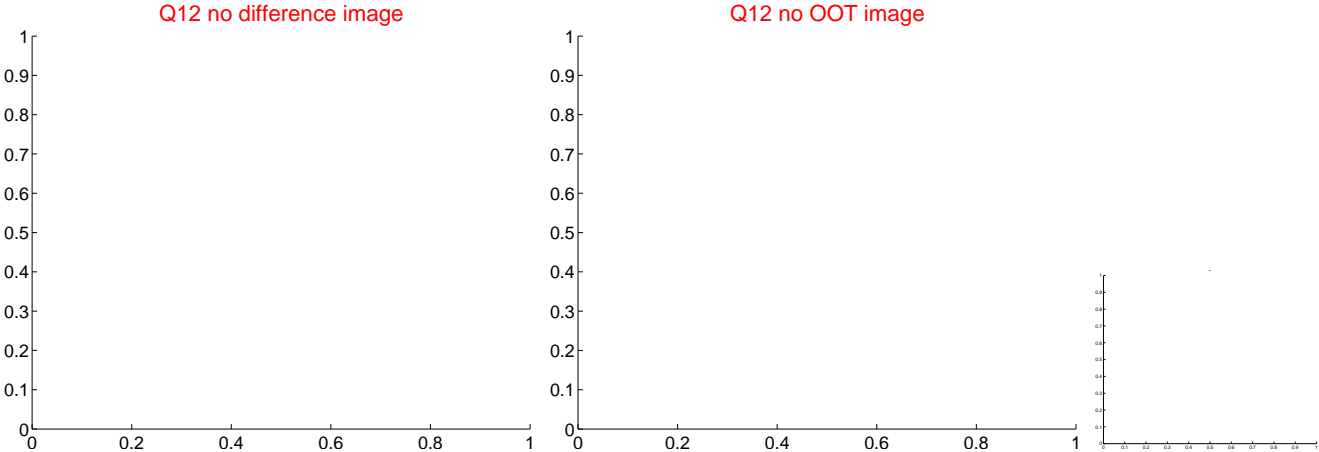
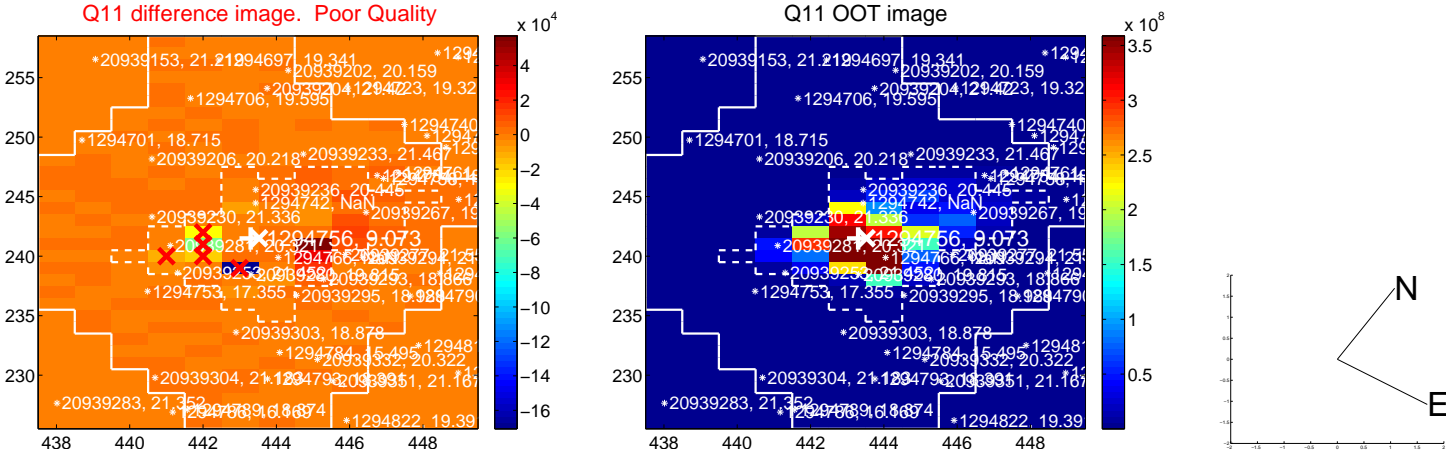
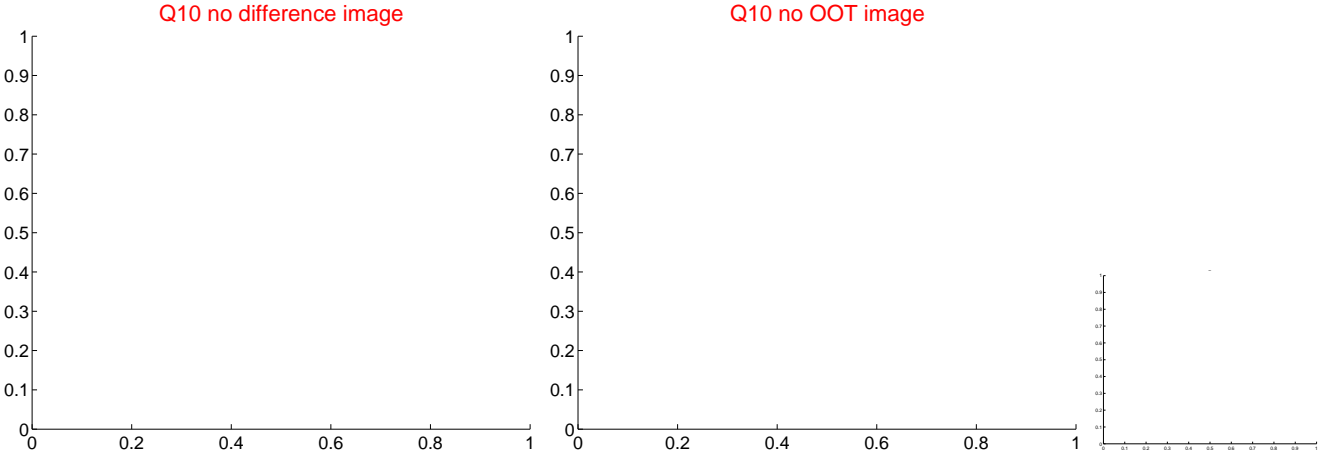
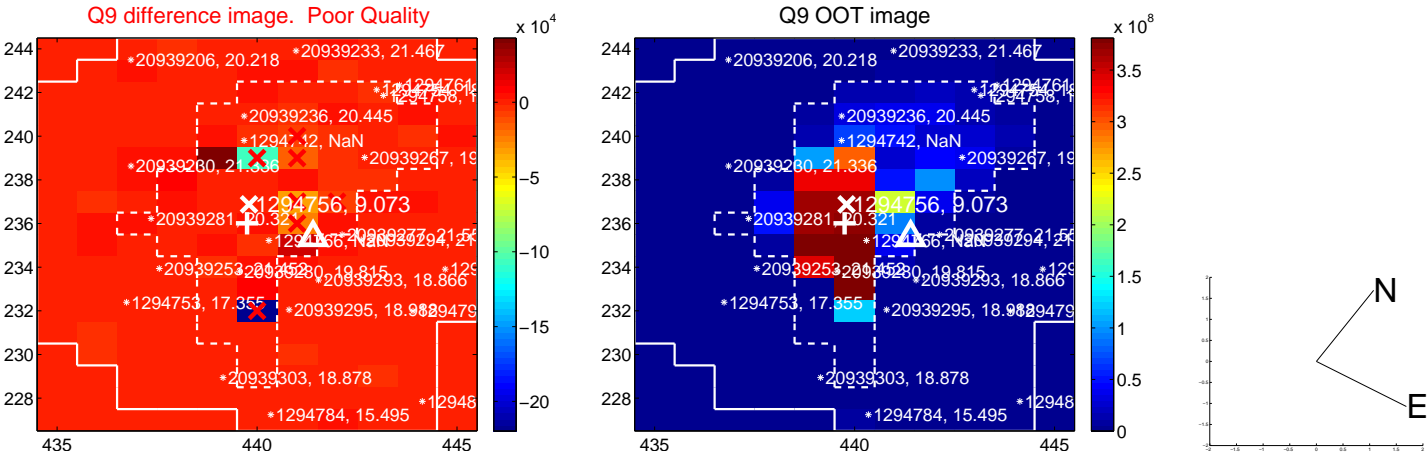
Q8 no difference image



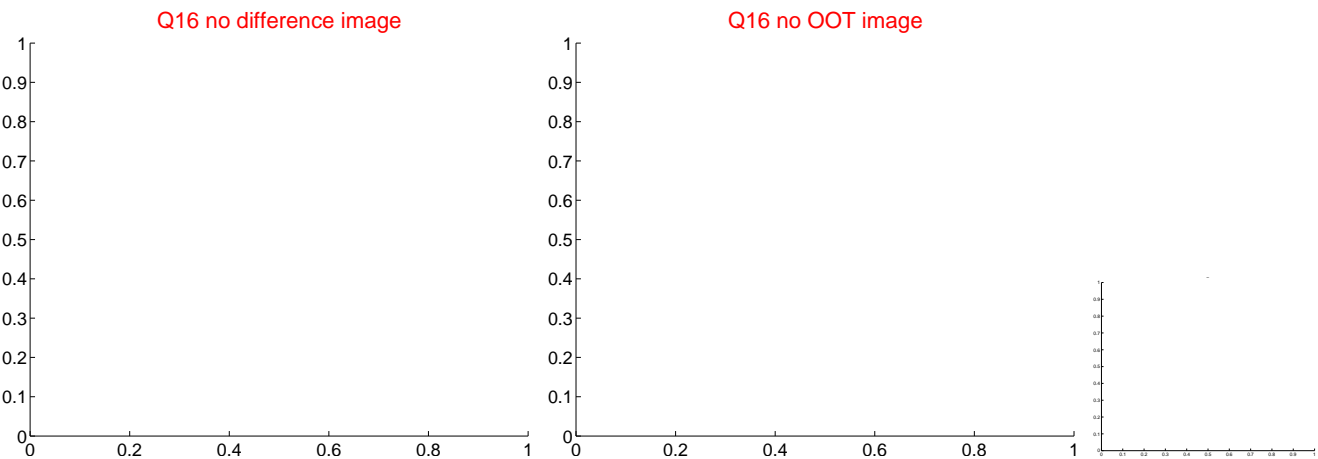
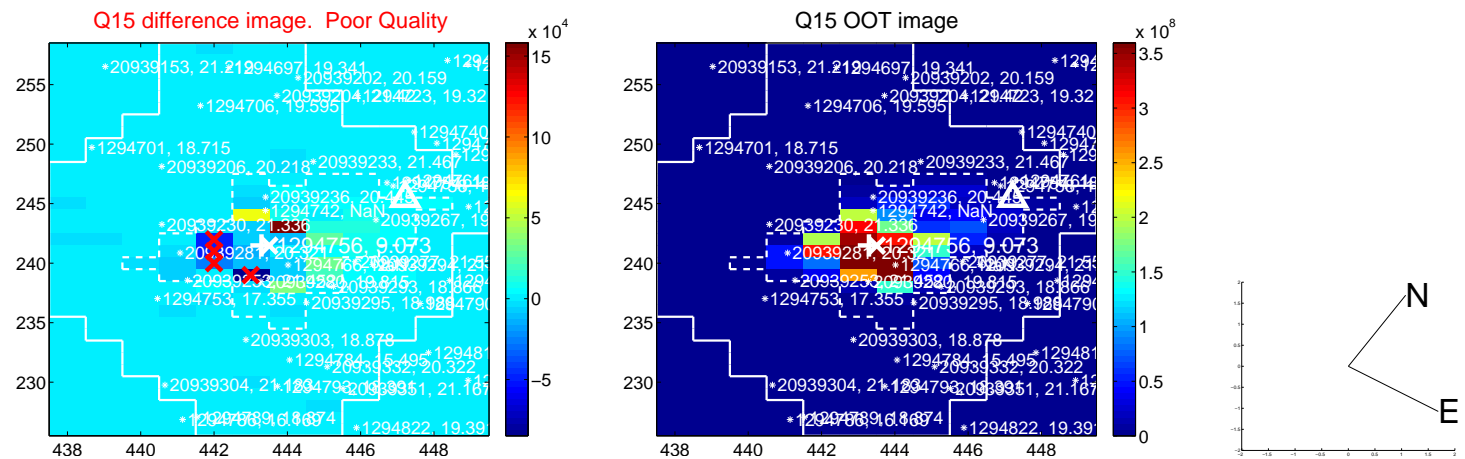
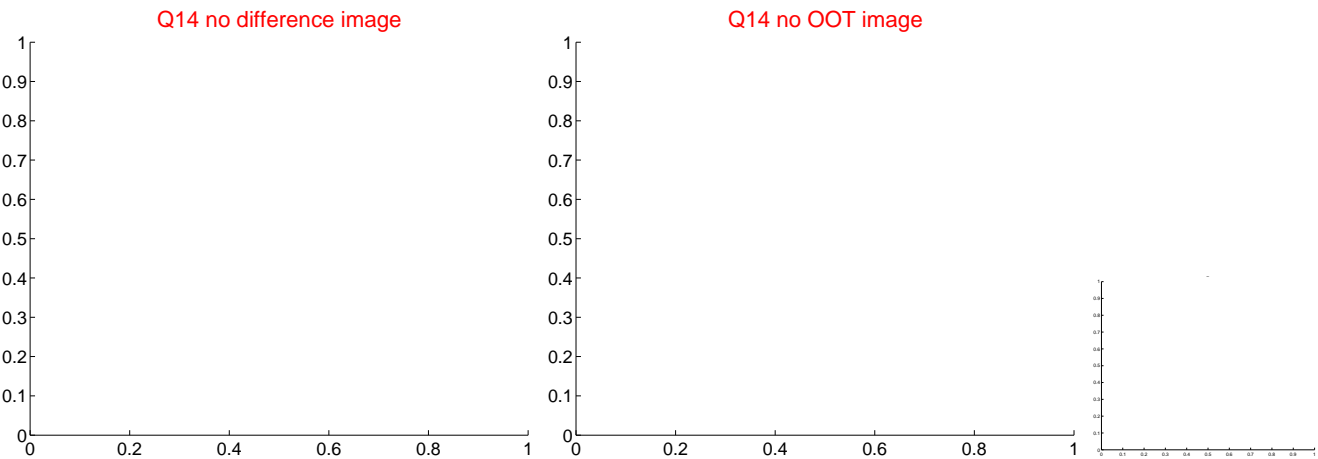
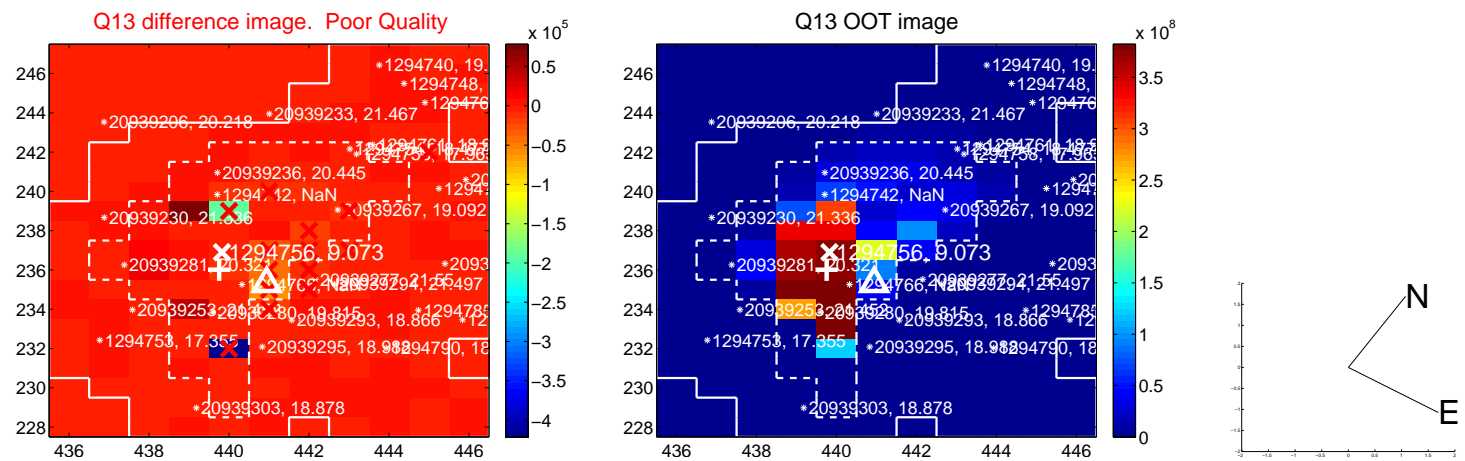
Q8 no OOT image



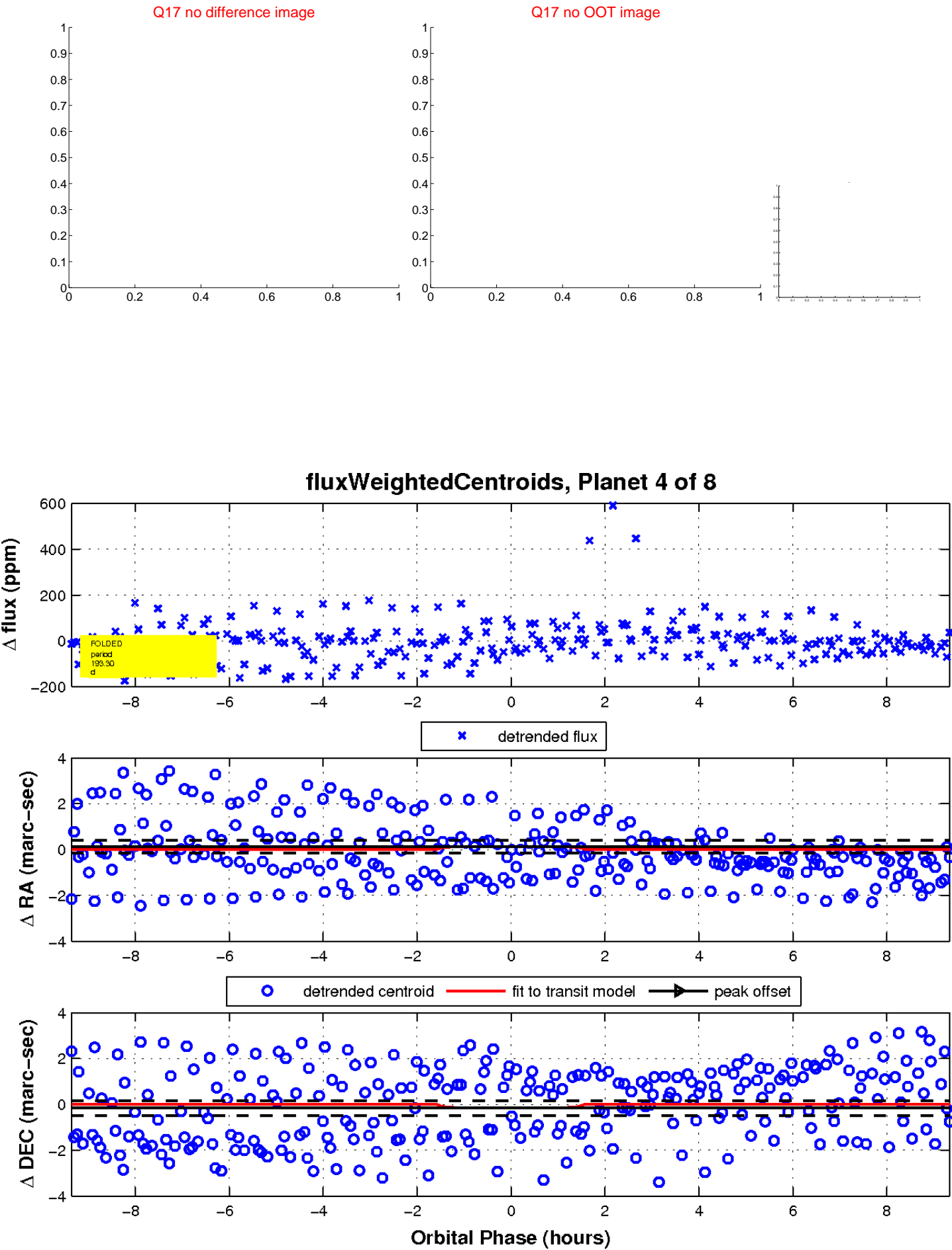
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

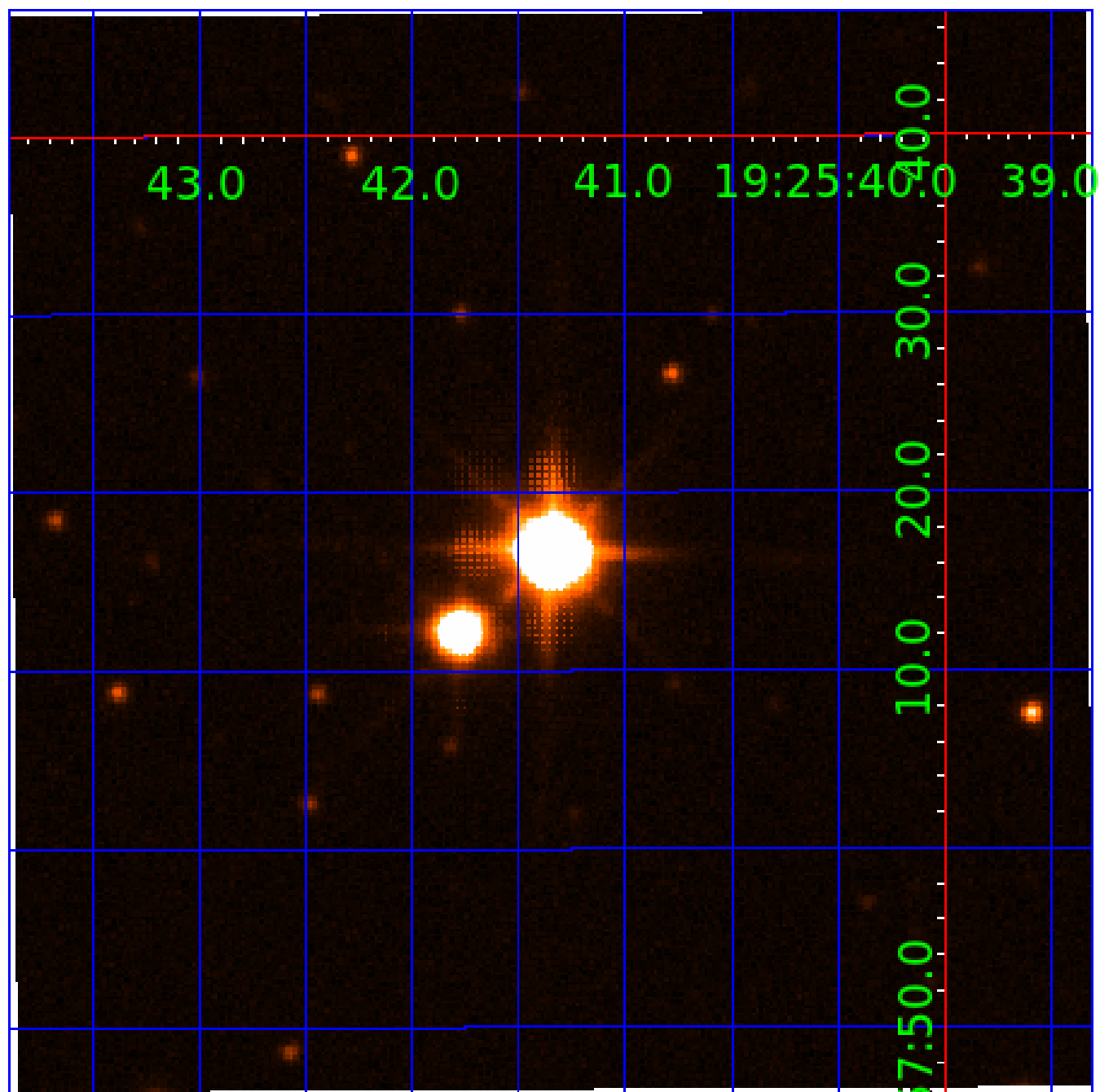


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 001294756

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})
001294756-01	OBS	No	0.795291	131.971363	4.7	2.979	11.8	9.2	3.00	8615	0.75	99292.83
001294756-02	OBS	No	327.663741	259.641741	232.4	11.955	16.0	7.2	3.00	8615	4.89	32.39
001294756-03	OBS	No	527.250441	175.542850	196.8	21.992	10.7	6.0	3.00	8615	4.99	17.18
001294756-04	OBS	No	193.299601	232.194176	162.6	3.125	12.5	8.5	3.00	8615	4.17	65.46
001294756-05	OBS	No	252.752885	302.211336	68.5	23.399	10.8	3.5	3.00	8615	2.84	45.78
001294756-06	OBS	No	400.264020	333.657989	264.4	12.736	10.7	7.0	3.00	8615	5.22	24.80
001294756-07	OBS	No	546.484228	246.698510	353.9	14.817	7.8	8.1	3.00	8615	6.80	16.38
001294756-08	OBS	No	278.183321	251.694824	98.3	10.703	9.5	4.1	3.00	8615	3.46	40.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
001294756-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
001294756-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—INCONSISTENT_TRANS—CENT_SATURATED
001294756-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_SATURATED
001294756-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—CENT_SATURATED
001294756-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
001294756-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_SATURATED
001294756-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—INCONSISTENT_TRANS—CENT_SATURATED
001294756-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_SATURATED

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

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

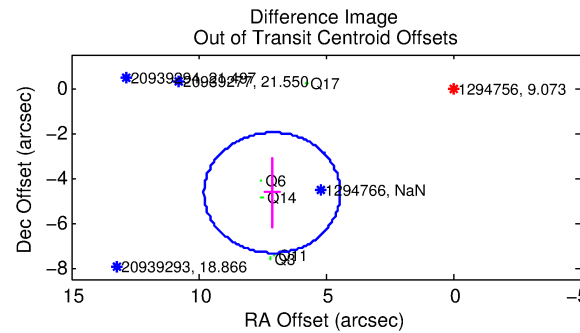
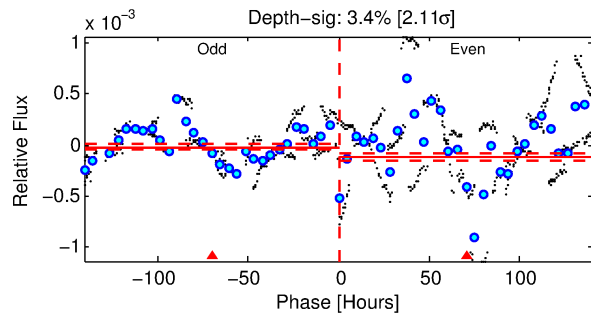
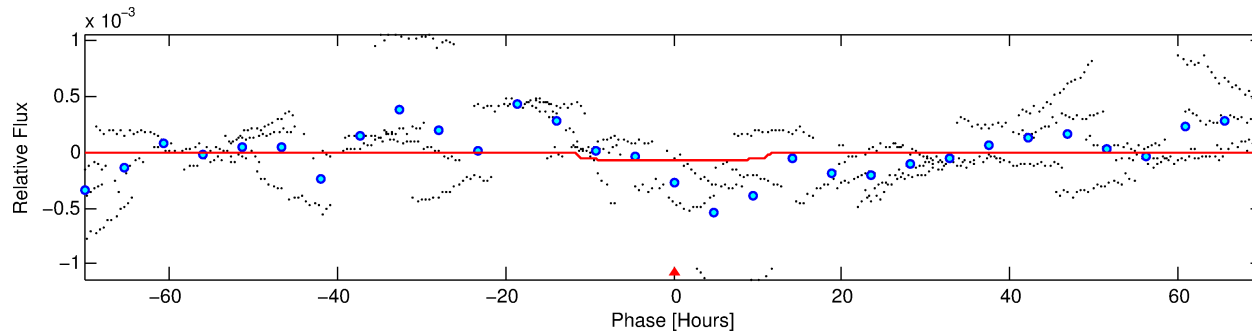
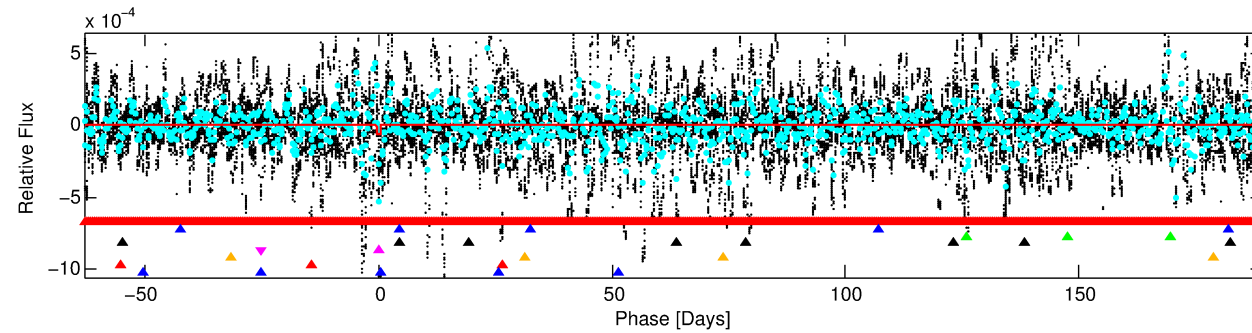
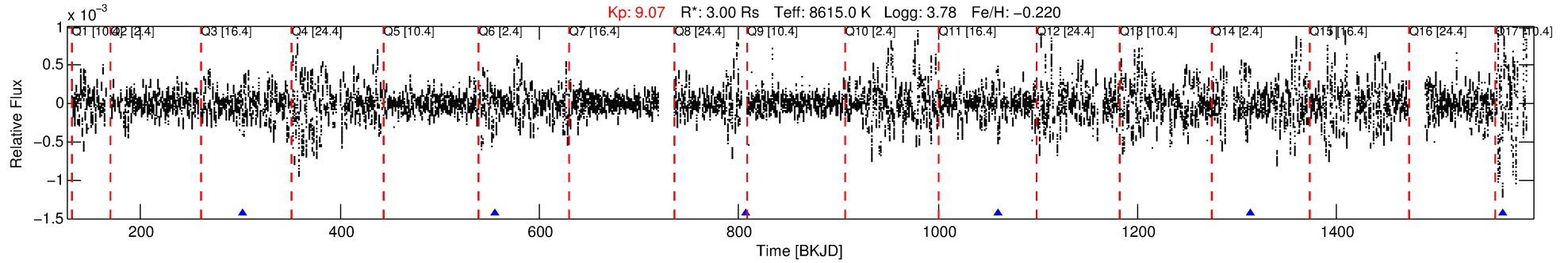
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 001294756-05

No Significant Match Found

DV One-Page Summary

KIC: 1294756 Candidate: 5 of 8 Period: 252.753 d



DV Fit Results:

Period = 252.75288 [0.00385] d
Epoch = 302.2113 [0.0104] BKJD
Rp/R* = 0.0087 [0.0017]
a/R* = 41.12 [11.98]
b = 0.88 [0.08]
Seff = 45.78 [32.27]
Teq = 663 [117] K
Rp = 2.84 [1.33] Re
a = 0.9860 [0.4147] AU
Ag = 3321.02 [3393.52] [0.98 σ]
Teffp = 7785 [1517] K [4.68 σ]

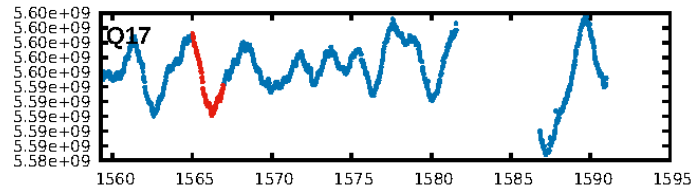
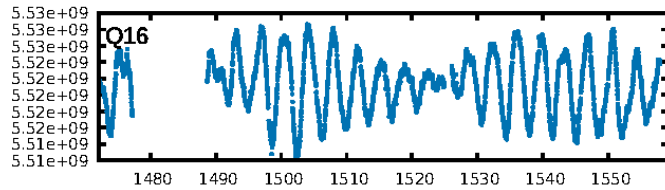
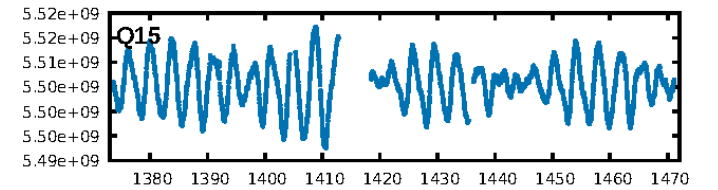
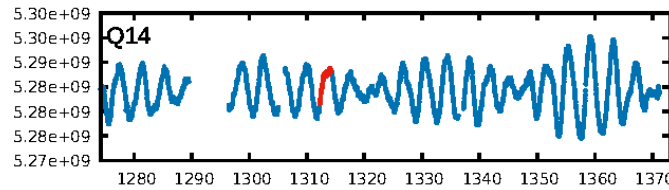
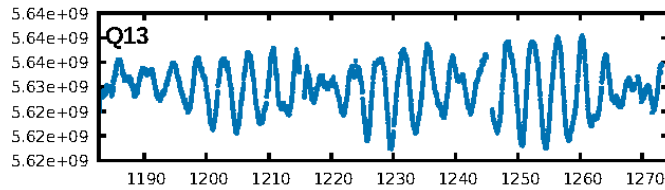
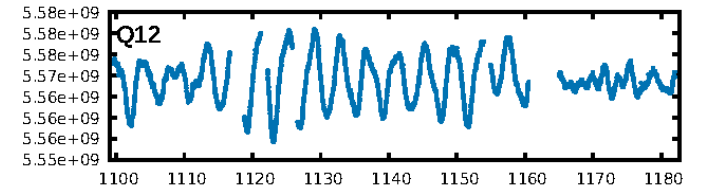
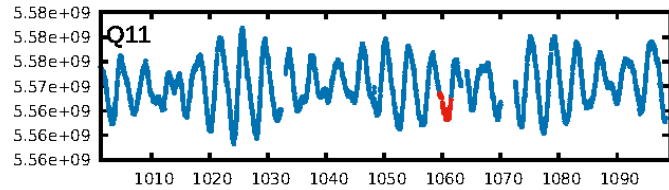
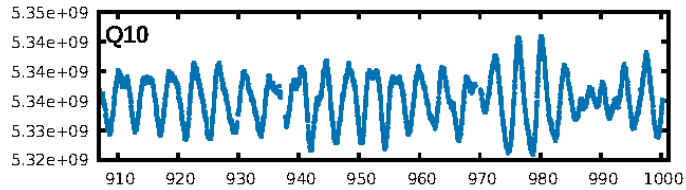
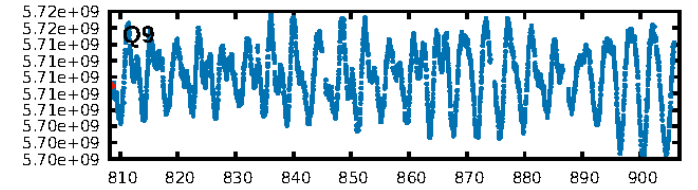
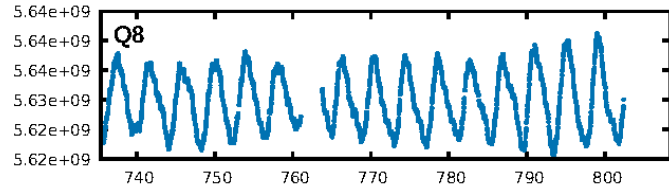
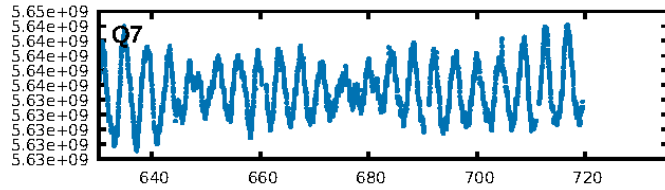
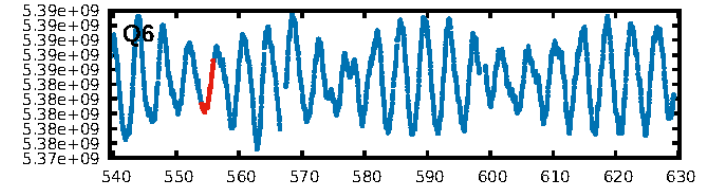
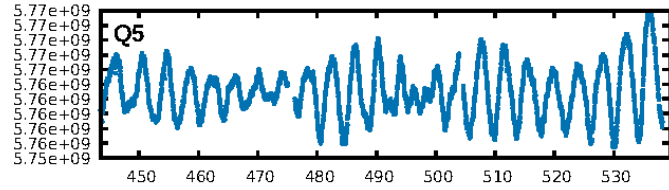
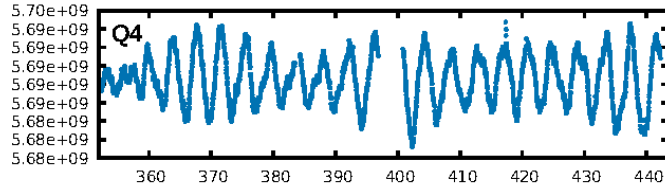
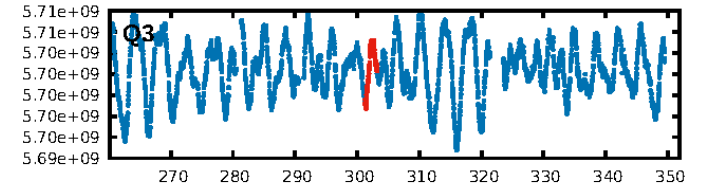
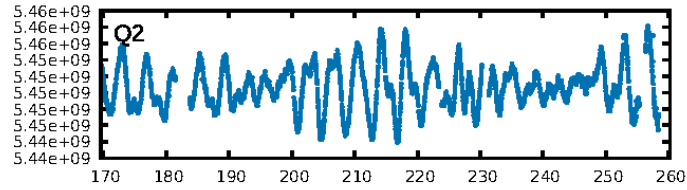
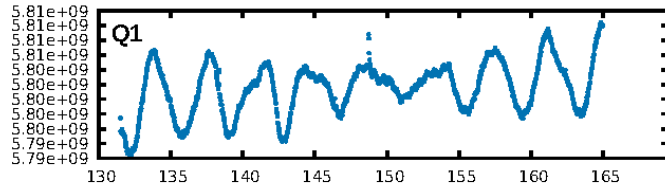
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [60.44 σ]
LongPeriod-sig: 100.0% [23.72 σ]
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.53e-13
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: N/A
Centroid-sig: 3.2%
Centroid-so: 13.151 arcsec [1.63 σ]
OotOffset-rm: 8.495 arcsec [9.51 σ]
KicOffset-rm: 8.211 arcsec [11.44 σ]
OotOffset-st: 2/2/0/1 [5]
KicOffset-st: 2/2/0/1 [5]
DiffImageQuality-fgm: 0.00 [0/5]
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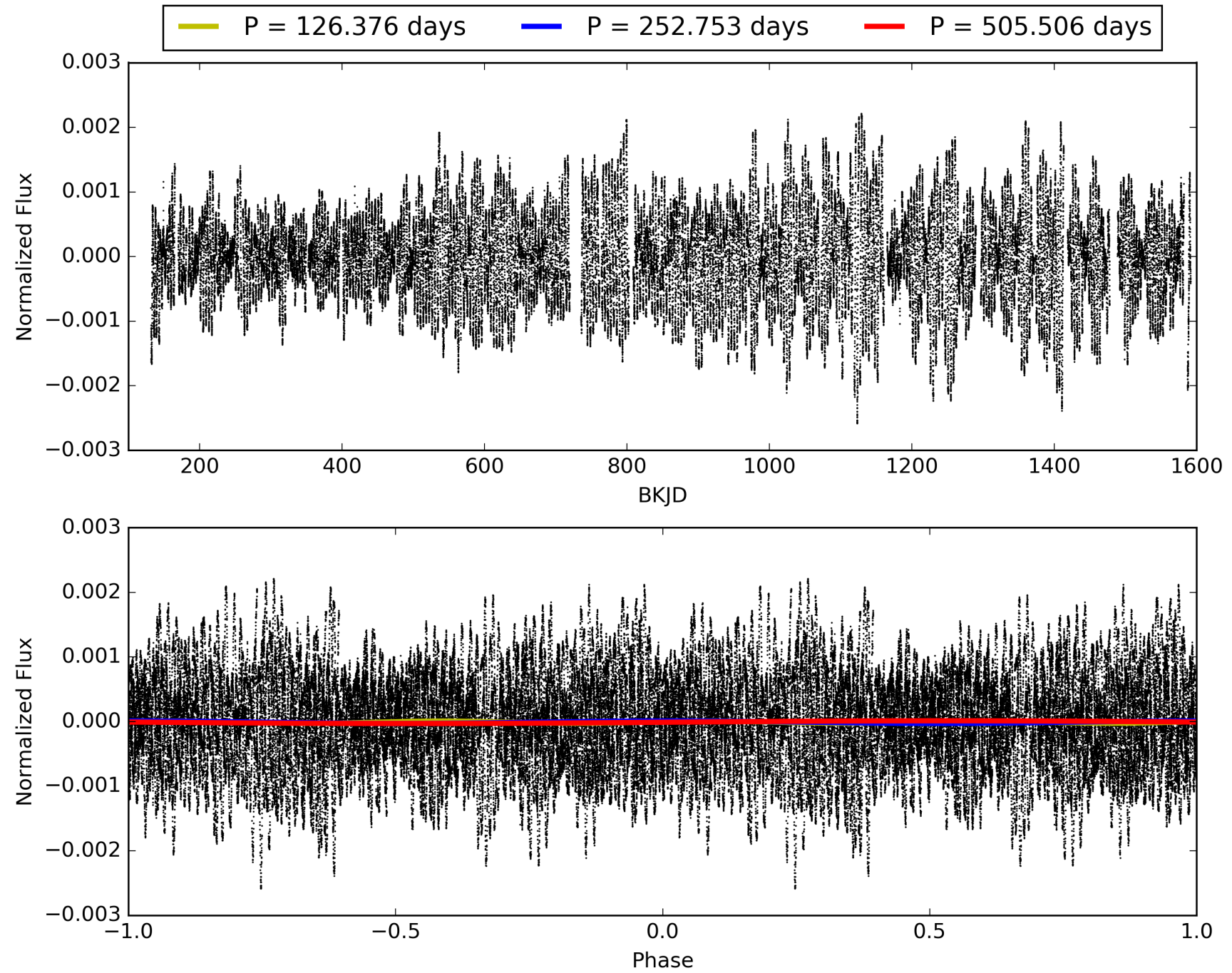
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 00:08:10 Z

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

TCE 001294756-05, PDC Light Curves

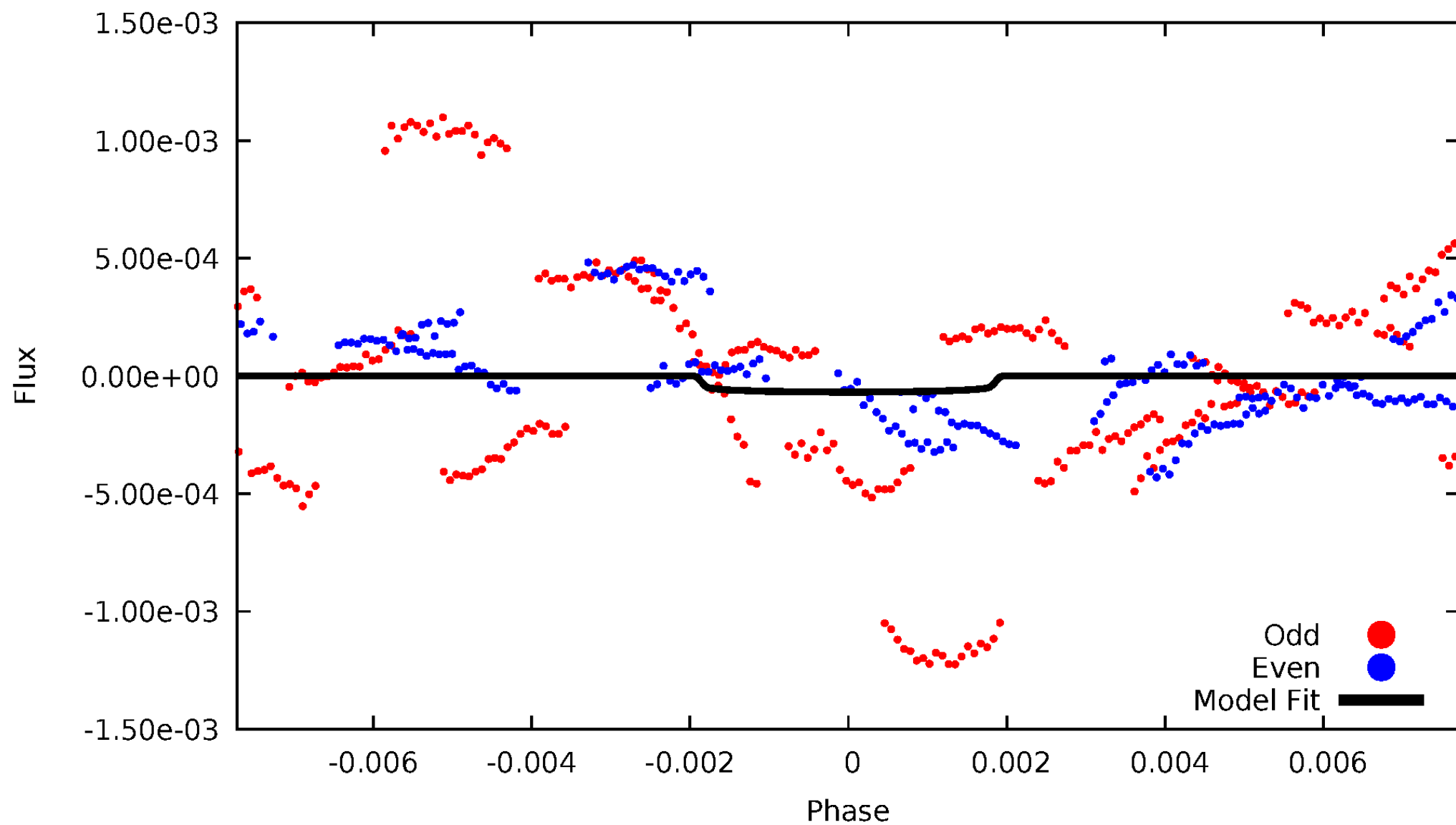


TCE 001294756-05



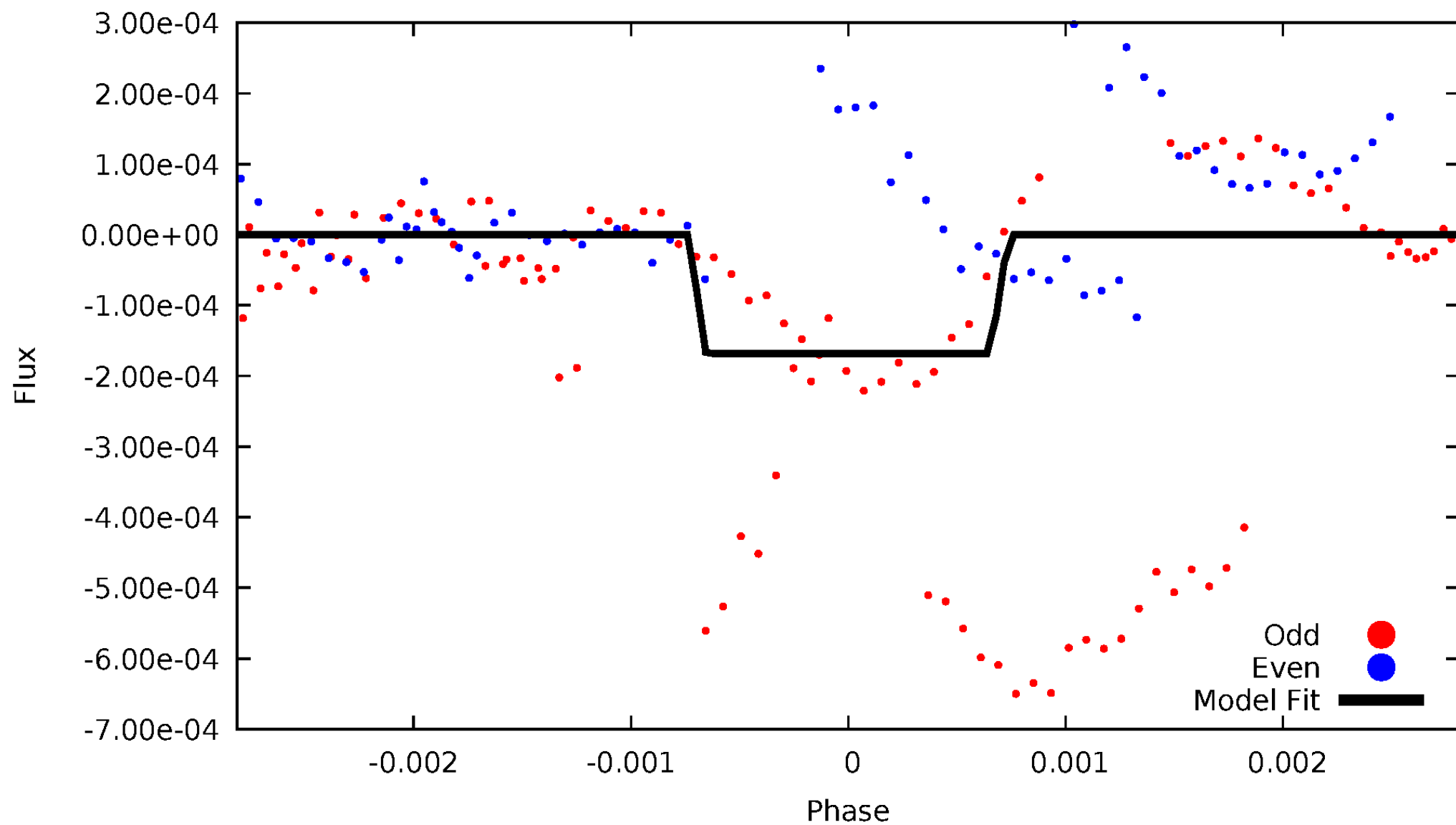
DV Odd/Even

TCE 001294756-05



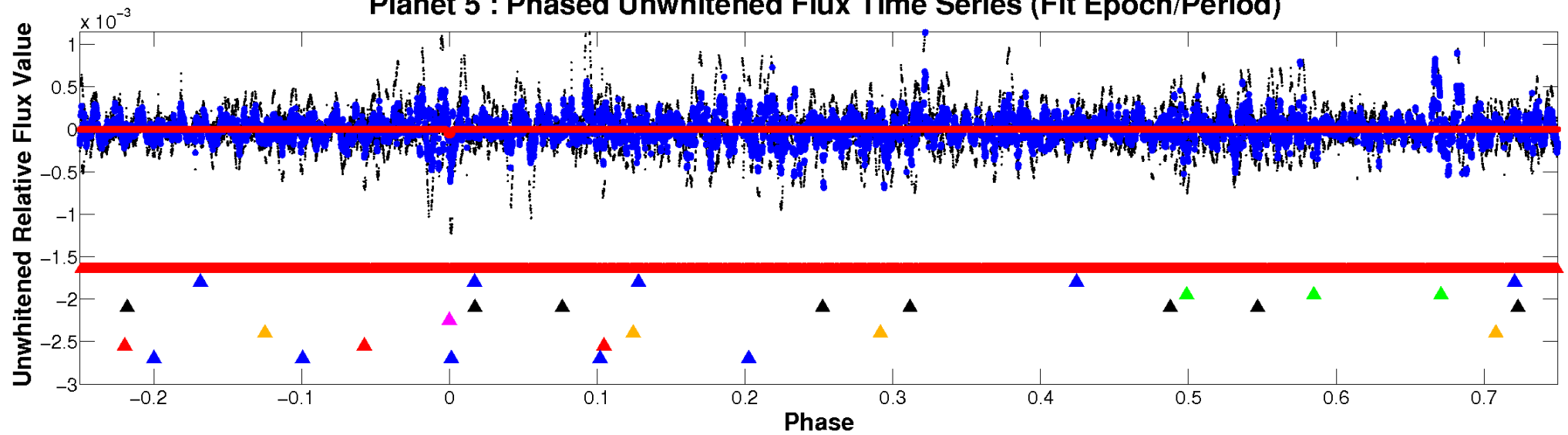
ALT Odd/Even

TCE 001294756-05

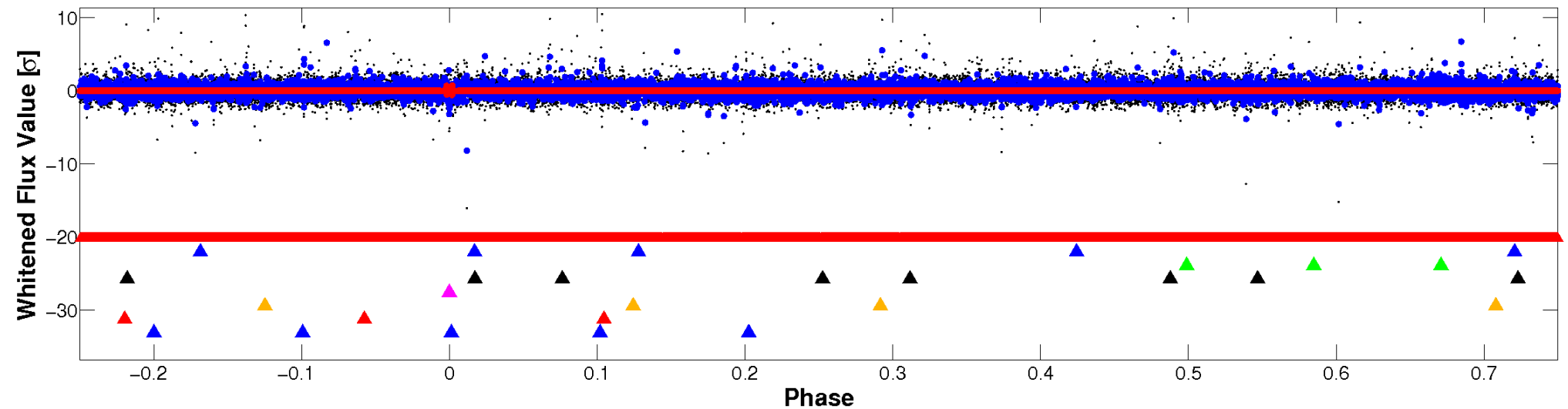


Non-Whitened Vs. Whitened Light Curve

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

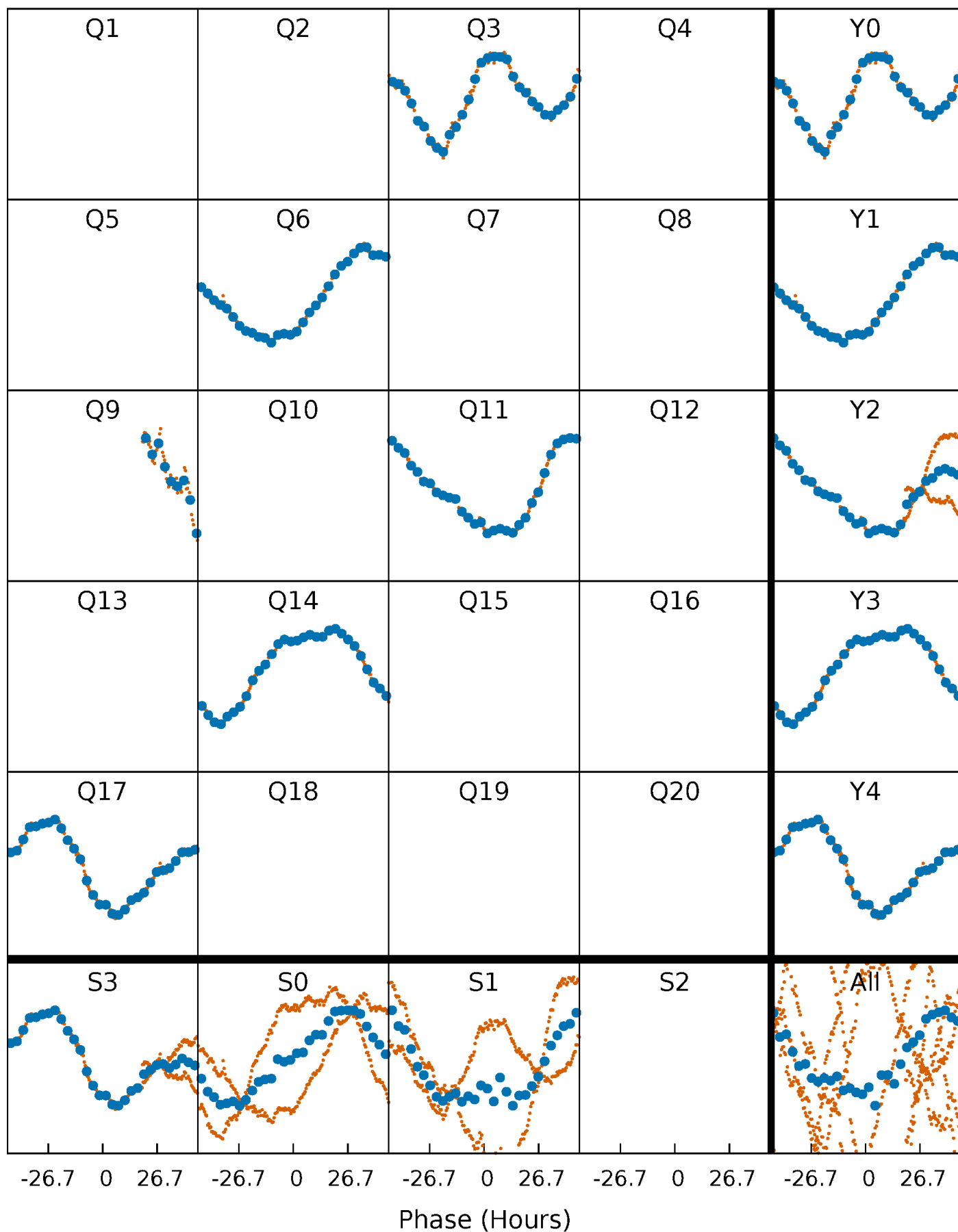


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



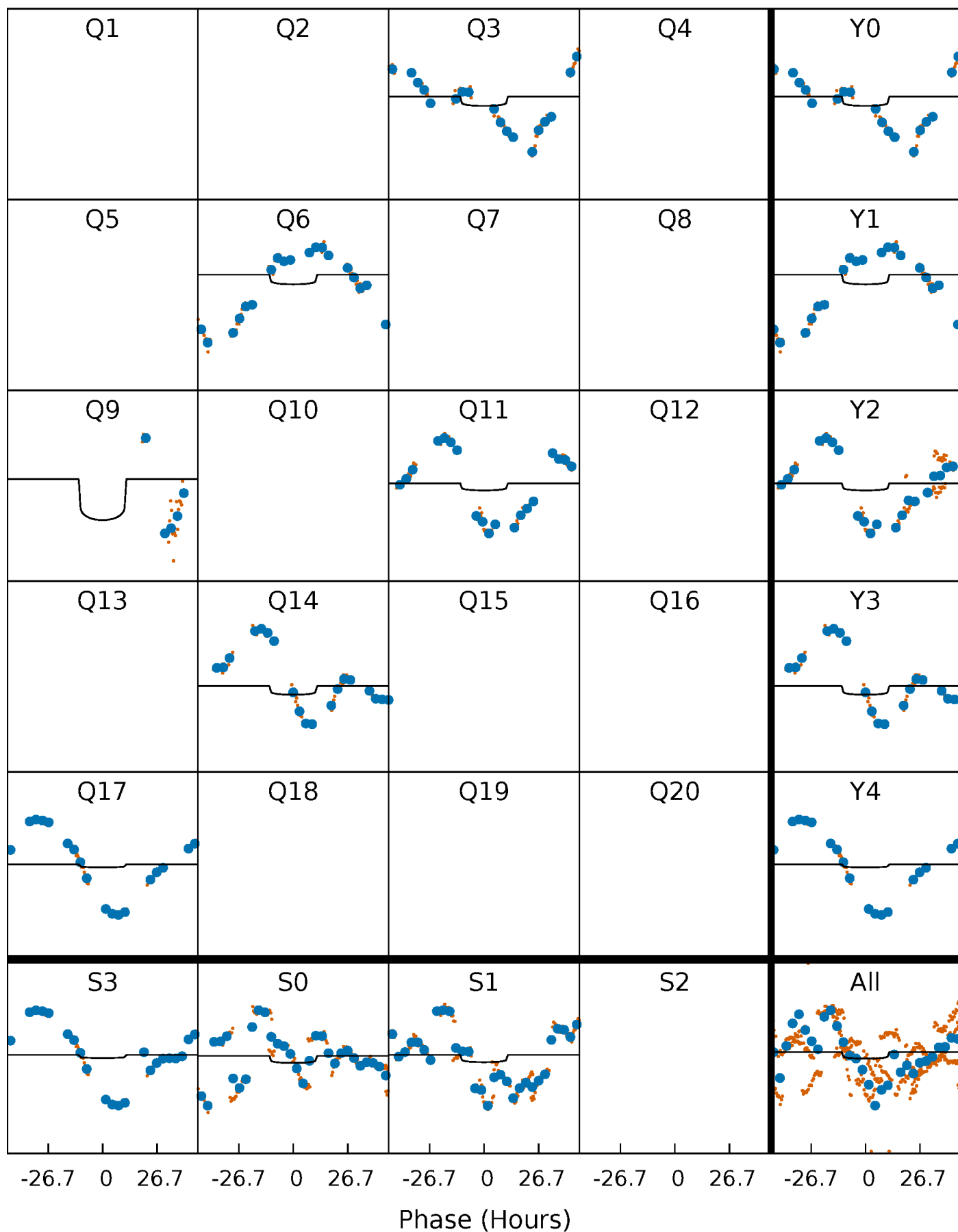
PDC Quarter-Phased Transit Curves

TCE 001294756-05 $P=252.752885$ Days $T_0=302.211336$ (BKJD)



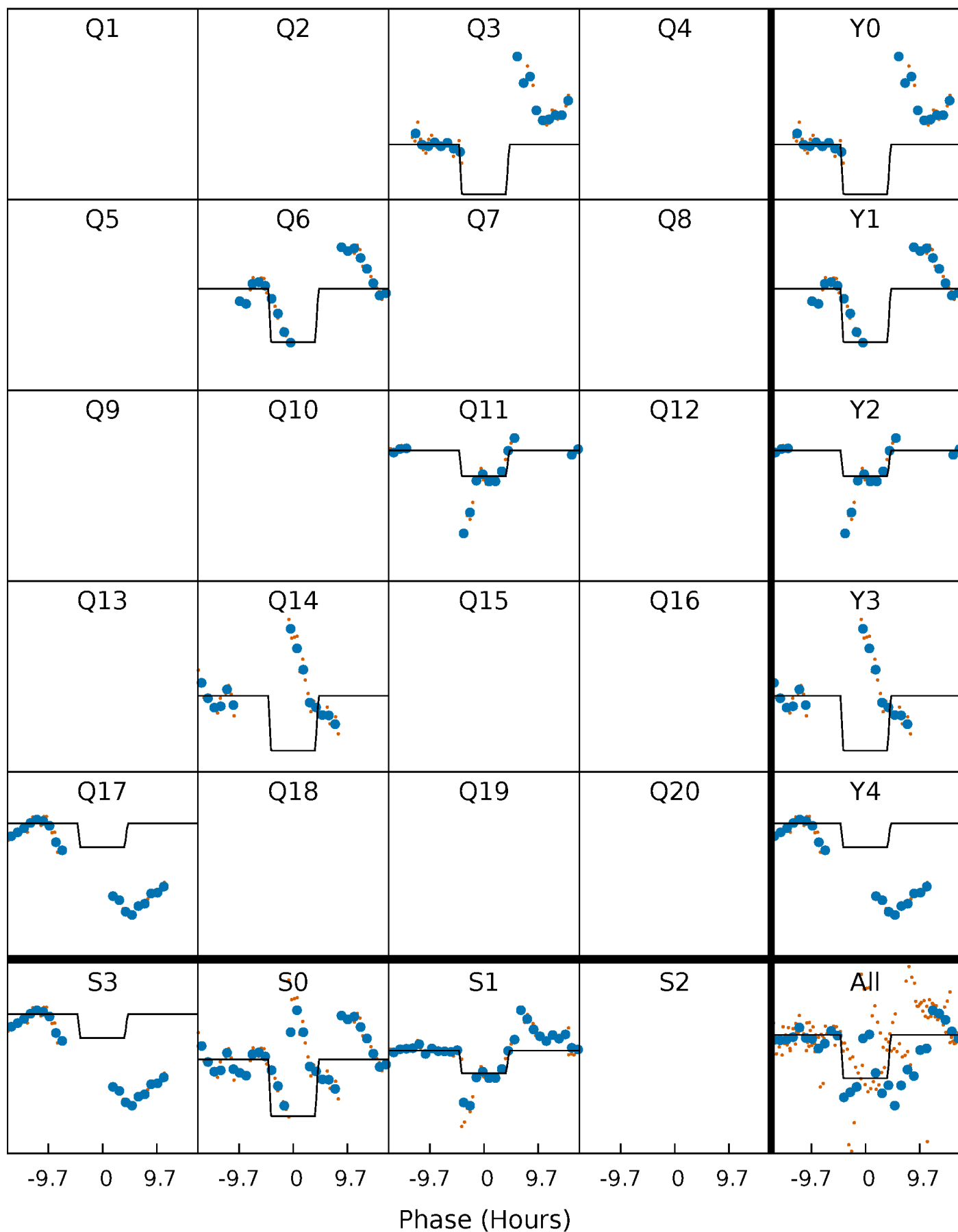
DV Quarter-Phased Transit Curves

TCE 001294756-05 $P=252.752885$ Days $T_0=302.211336$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

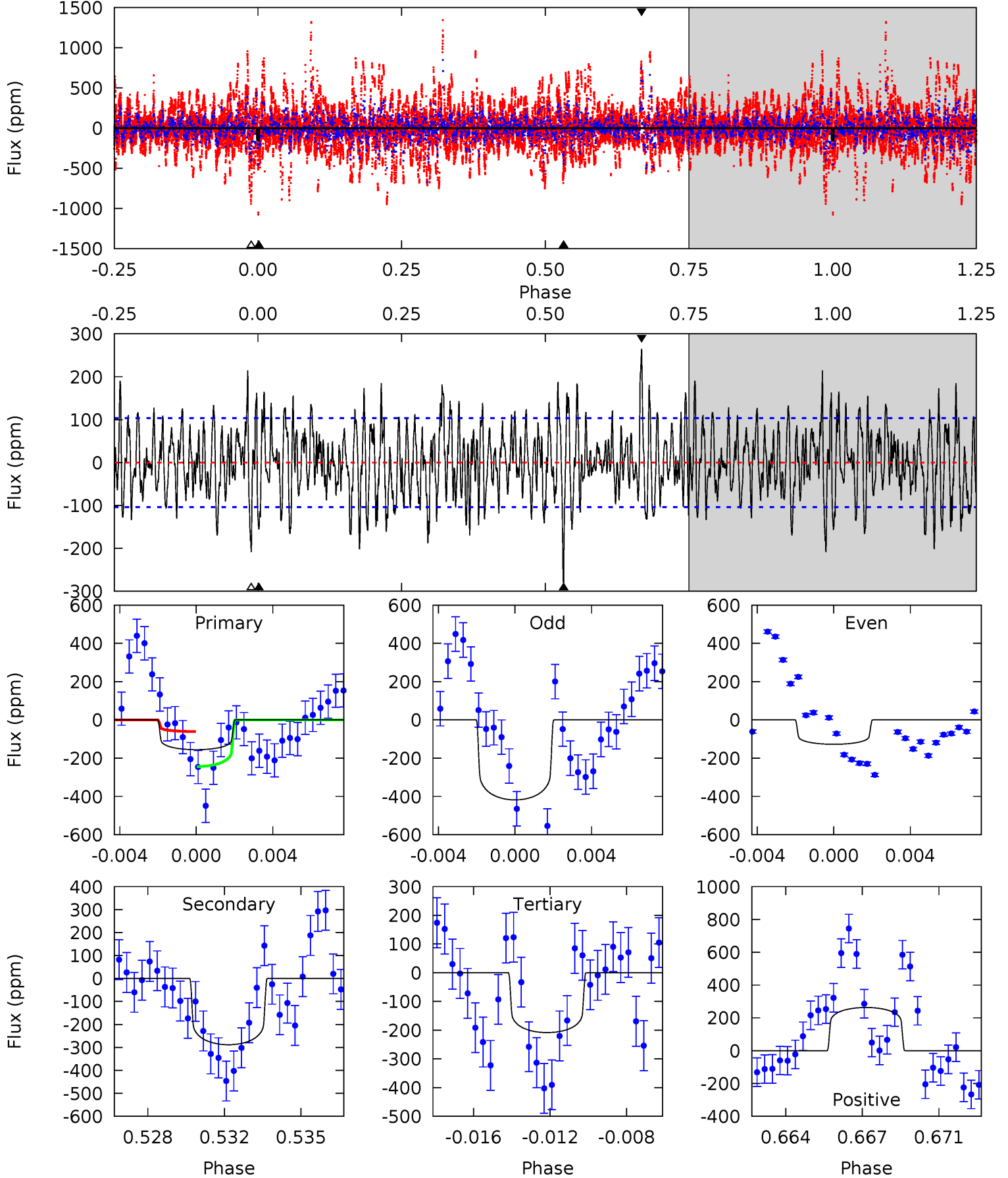
TCE 001294756-05 $P=252.776760$ Days $T_0=302.115138$ (BKJD)



DV Model-Shift Uniqueness Test

001294756-05, $P = 252.752885$ Days, $E = 49.458451$ Days

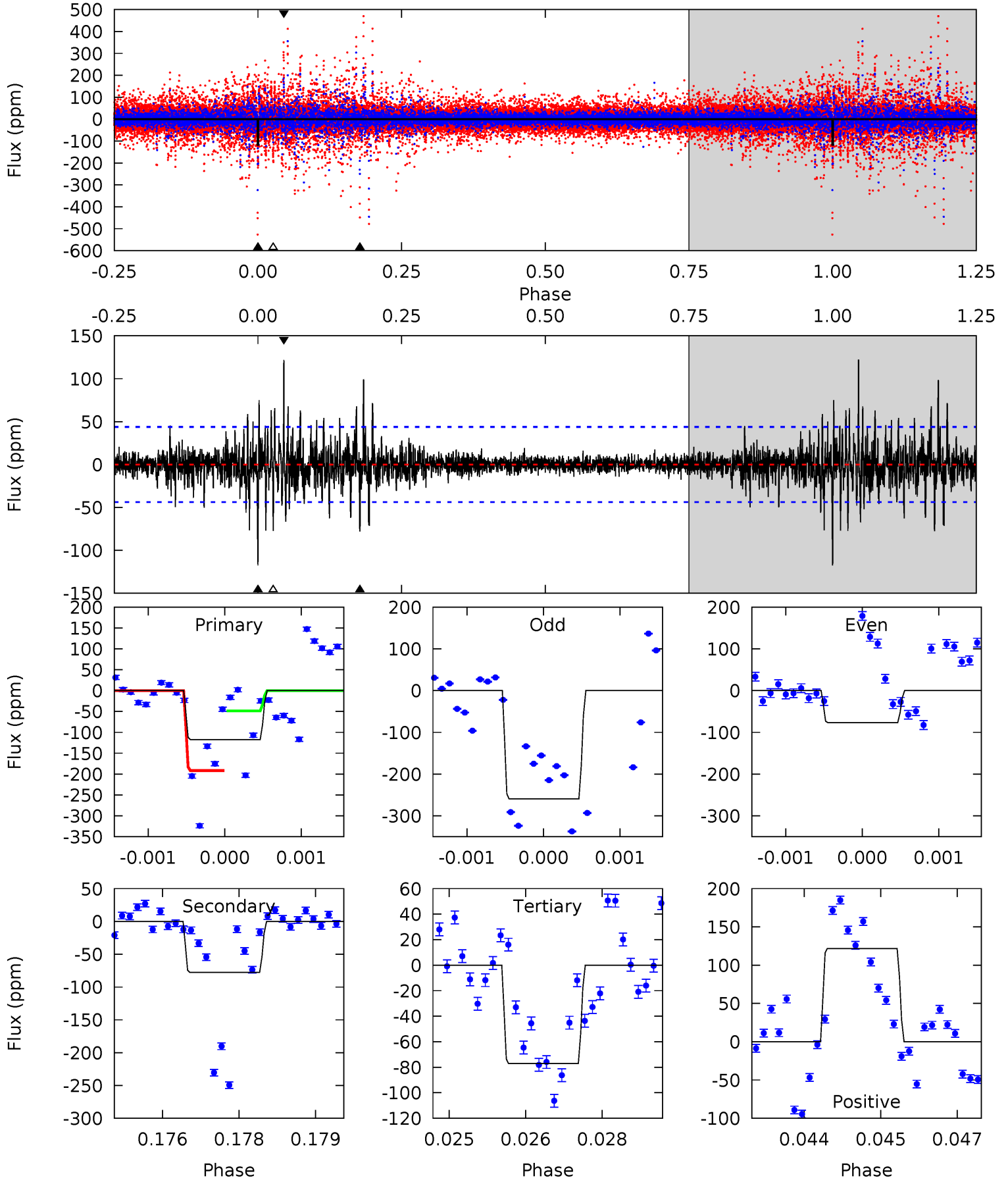
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.82	14.5	10.5	13.2	5.20	2.89	3.57	-2.65	-5.39	4.02	1.27	7.34	1.83	0.48	4.62



Alt Model-Shift Uniqueness Test

001294756-05, P = 252.776760 Days, E = 49.338378 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.5	9.60	9.51	15.0	5.39	3.20	1.62	4.99	-0.52	0.08	-5.43	9.44	1.20	0.51	8.57



Stellar Parameters For KIC 001294756

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	ρ_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8615^{+238}_{-374}	$3.784^{+0.405}_{-0.135}$	$-0.220^{+0.400}_{-0.350}$	$3.003^{+0.851}_{-1.276}$	$2.002^{+0.411}_{-0.411}$	$0.104^{+0.376}_{-0.047}$
	+3%/-4%	+11%/-4%	+182%/-159%	+28%/-42%	+21%/-21%	+361%/-45%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 001294756-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-288 ± 20	$2.66^{+0.74}_{-0.77}$	899^{+76}_{-97}	14546^{+3720}_{-2340}	21683^{+20675}_{-8458}
Alt.	-78 ± 8	$4.01^{+0.99}_{-0.94}$	897^{+78}_{-94}	6812^{+573}_{-538}	2599^{+1895}_{-895}

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

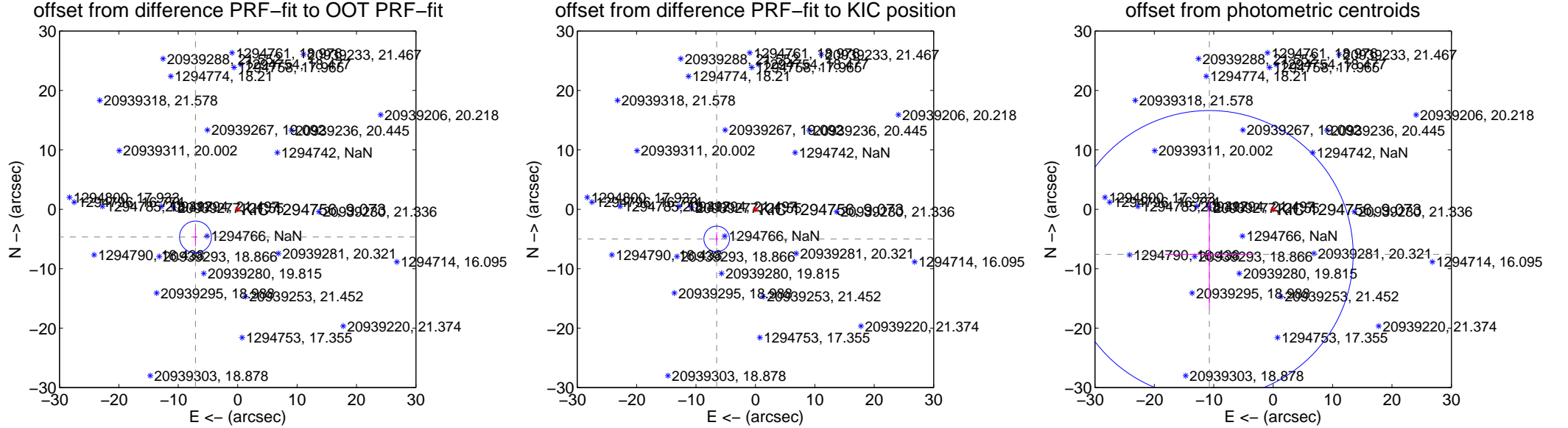
DV Centroid Data

Supplemental centroid analysis for 001294756-05. **Kepler magnitude: 9.07.** Transit SNR 3.46

There are 0 quarters with good PRF difference image offsets

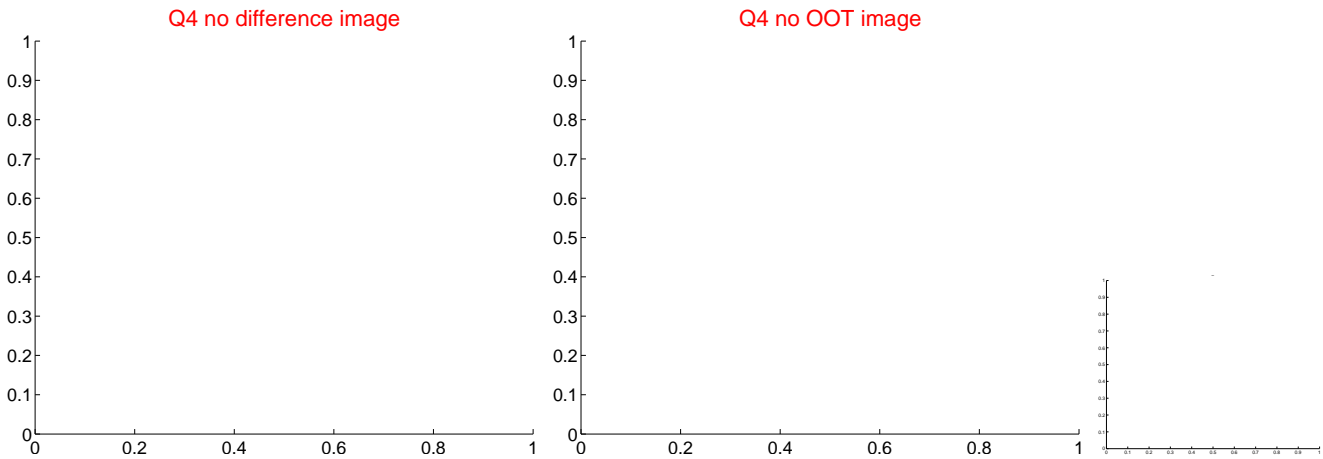
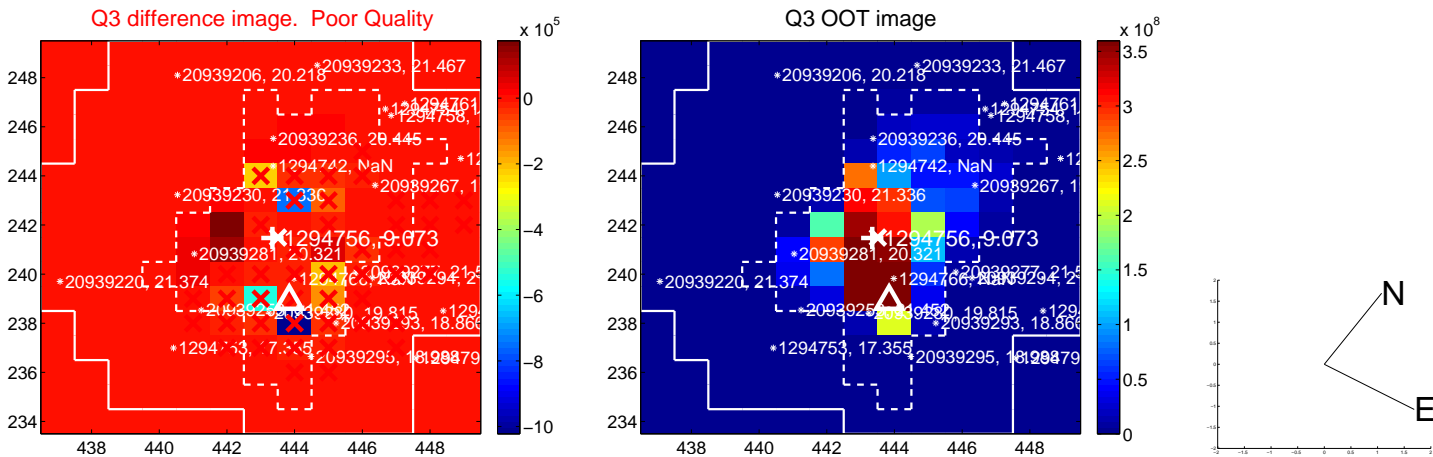
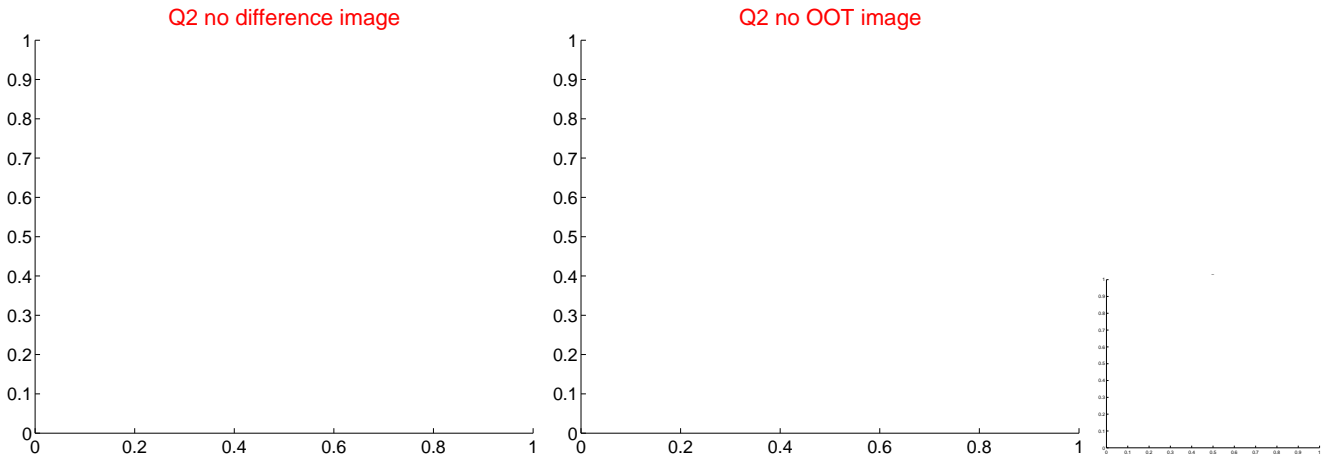
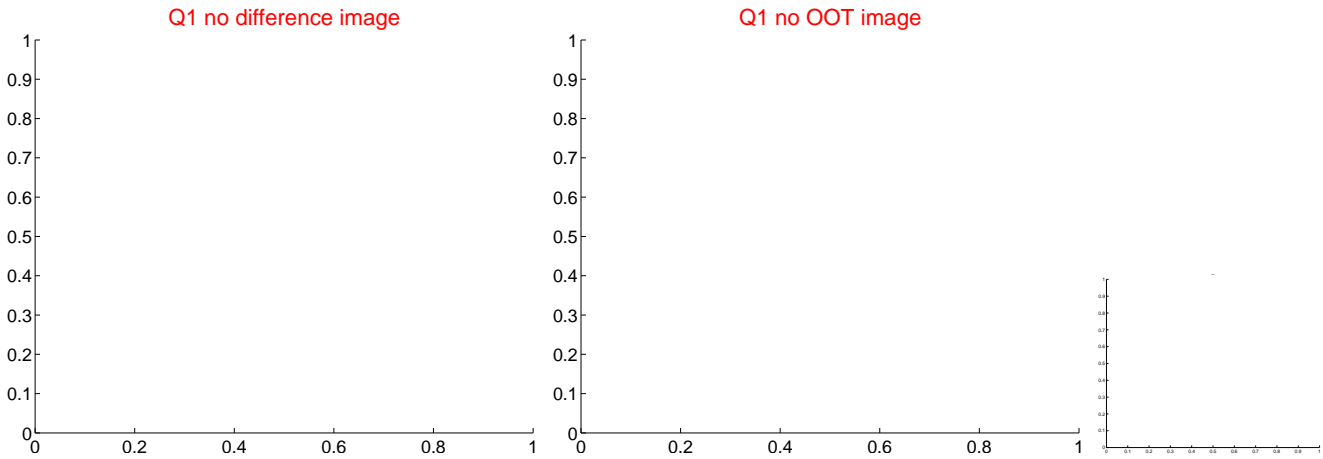
The OOT PRF centroid is offset from the target star catalog position by about 3.49 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.495 \pm 0.893	9.51	7.101 \pm 0.299	-4.663 \pm 1.562
PRF-fit source offset from KIC position	8.211 \pm 0.718	11.44	6.518 \pm 0.262	-4.994 \pm 1.130
photometric centroid source offset	13.15 \pm 8.07	1.63	10.74 \pm 7.45	-7.59 \pm 9.18



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

Q9 no difference image



Q9 no OOT image



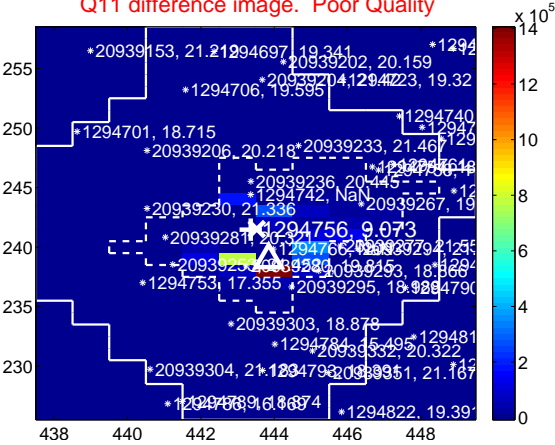
Q10 no difference image



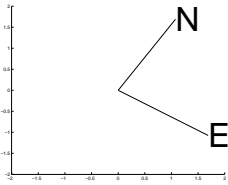
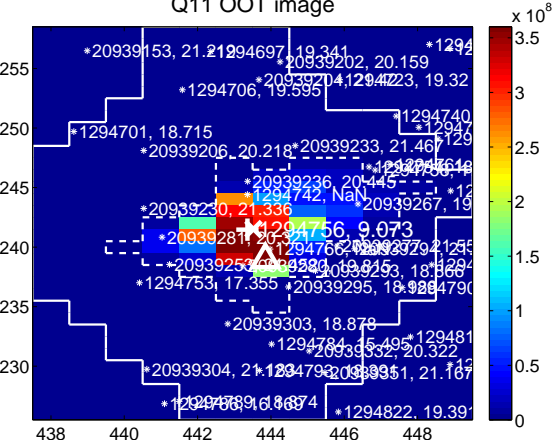
Q10 no OOT image



Q11 difference image. Poor Quality



Q11 OOT image



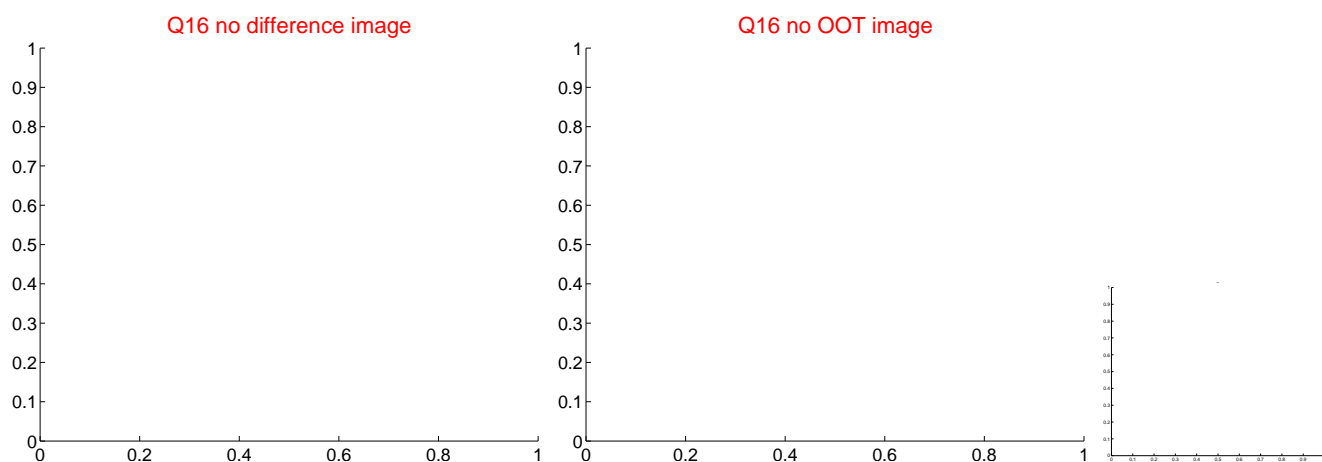
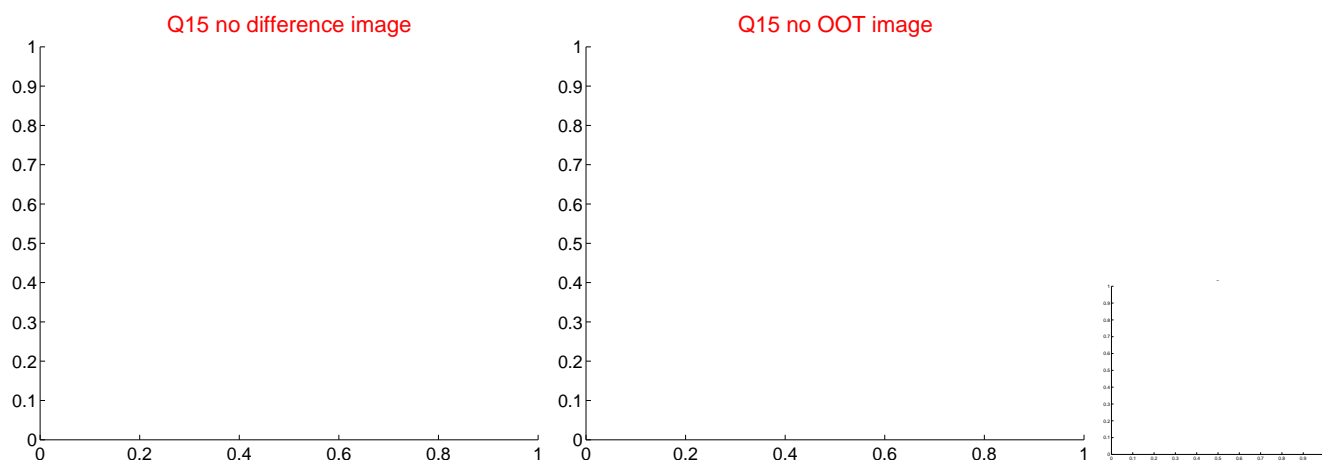
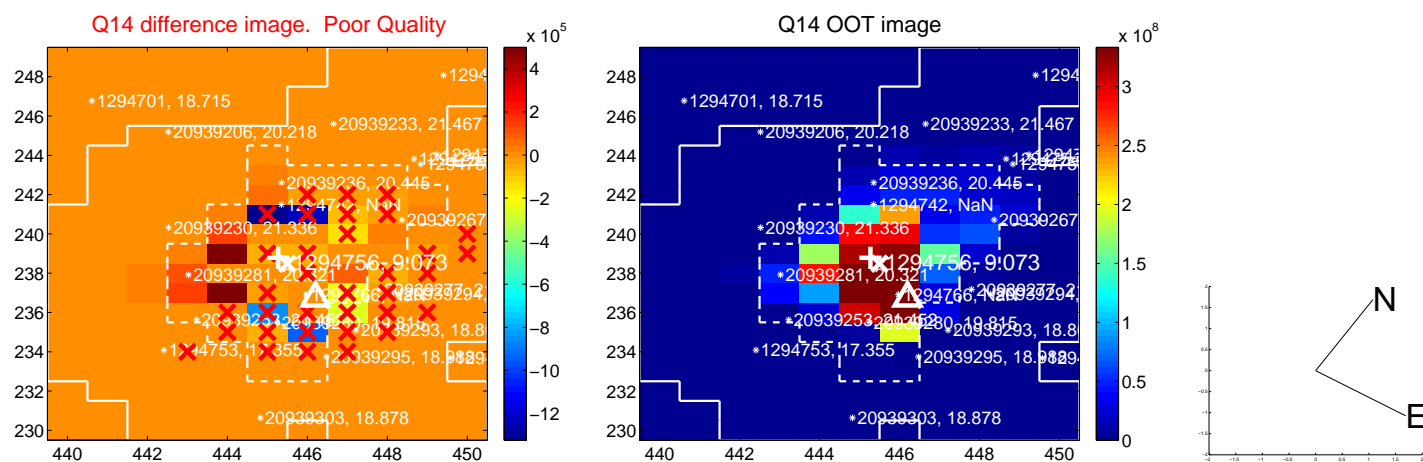
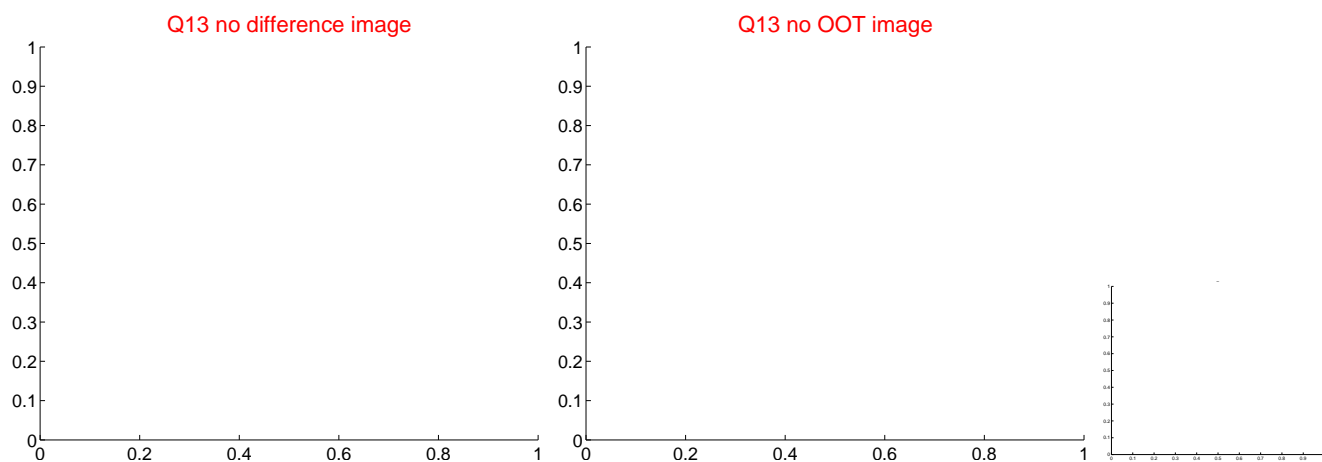
Q12 no difference image



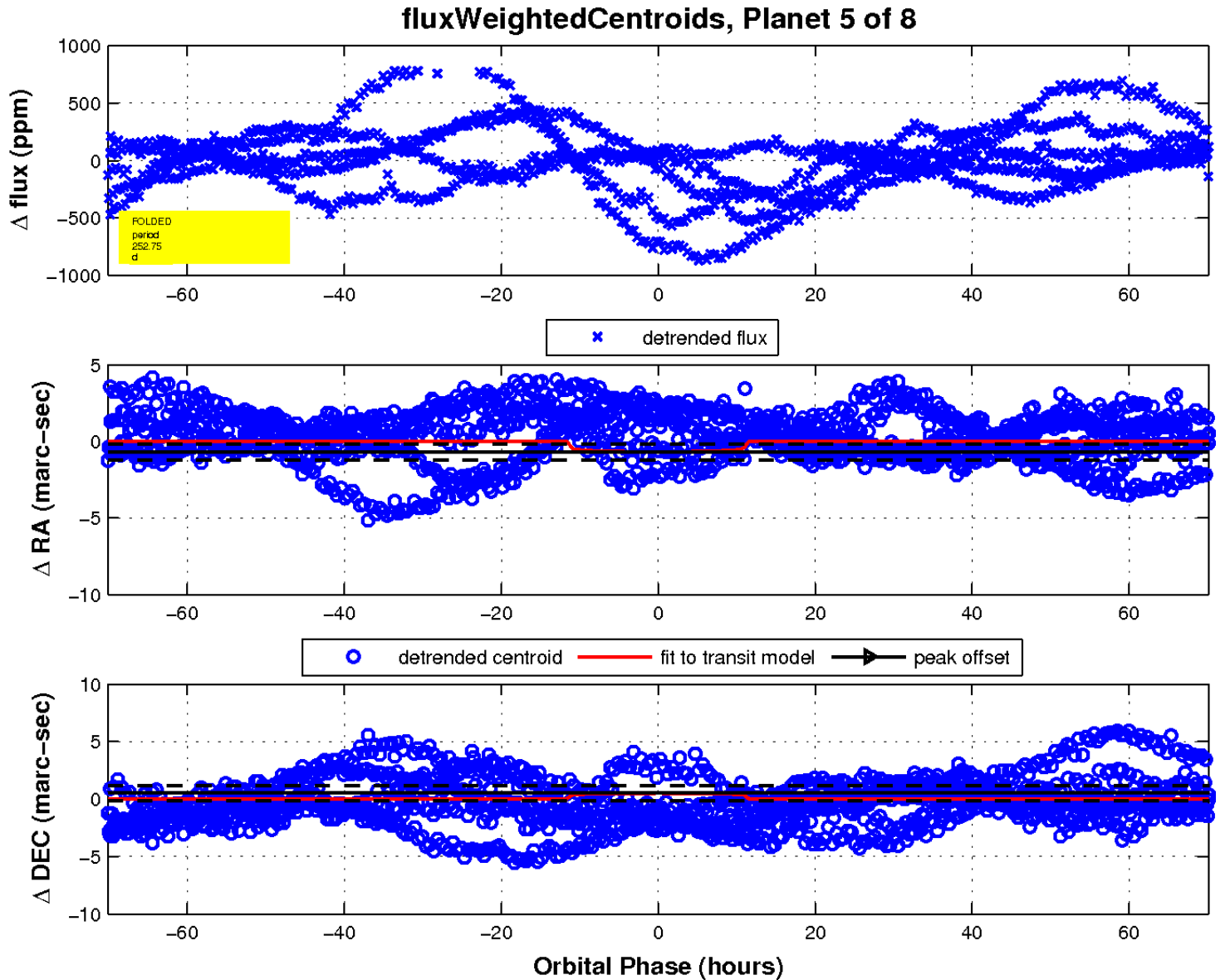
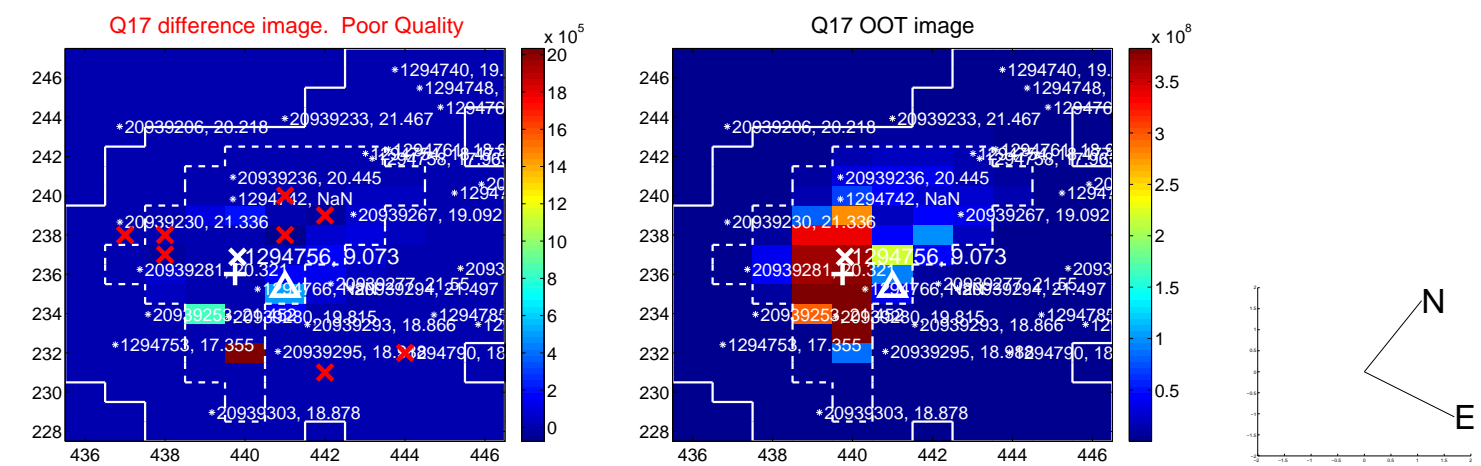
Q12 no OOT image



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

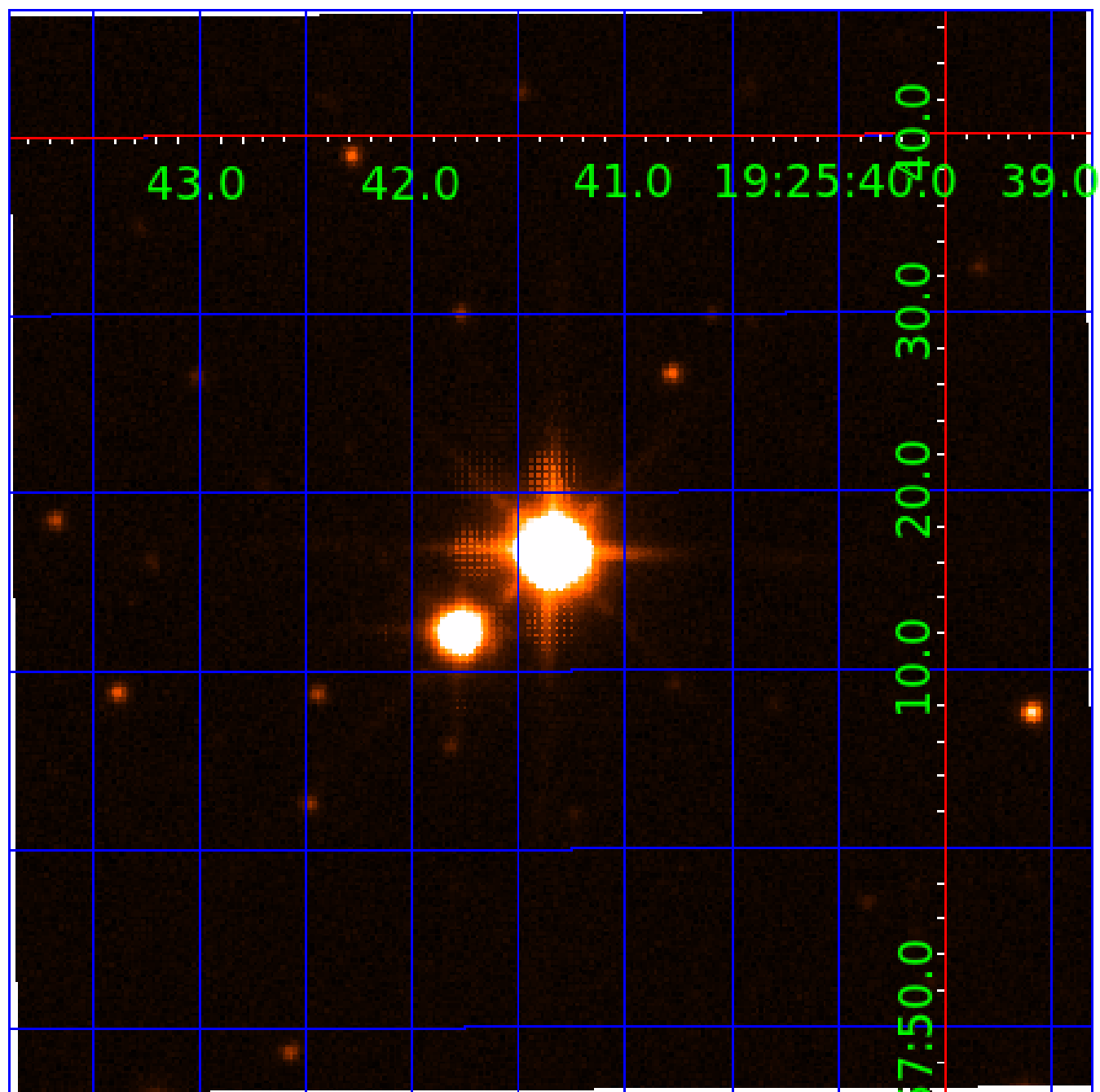


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 001294756

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})
001294756-01	OBS	No	0.795291	131.971363	4.7	2.979	11.8	9.2	3.00	8615	0.75	99292.83
001294756-02	OBS	No	327.663741	259.641741	232.4	11.955	16.0	7.2	3.00	8615	4.89	32.39
001294756-03	OBS	No	527.250441	175.542850	196.8	21.992	10.7	6.0	3.00	8615	4.99	17.18
001294756-04	OBS	No	193.299601	232.194176	162.6	3.125	12.5	8.5	3.00	8615	4.17	65.46
001294756-05	OBS	No	252.752885	302.211336	68.5	23.399	10.8	3.5	3.00	8615	2.84	45.78
001294756-06	OBS	No	400.264020	333.657989	264.4	12.736	10.7	7.0	3.00	8615	5.22	24.80
001294756-07	OBS	No	546.484228	246.698510	353.9	14.817	7.8	8.1	3.00	8615	6.80	16.38
001294756-08	OBS	No	278.183321	251.694824	98.3	10.703	9.5	4.1	3.00	8615	3.46	40.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
001294756-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
001294756-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—INCONSISTENT_TRANS—CENT_SATURATED
001294756-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_SATURATED
001294756-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—CENT_SATURATED
001294756-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
001294756-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_SATURATED
001294756-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—INCONSISTENT_TRANS—CENT_SATURATED
001294756-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_SATURATED

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

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

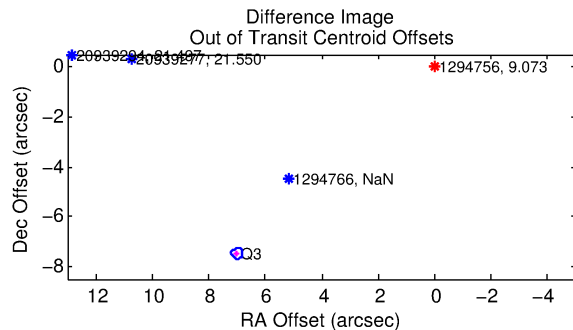
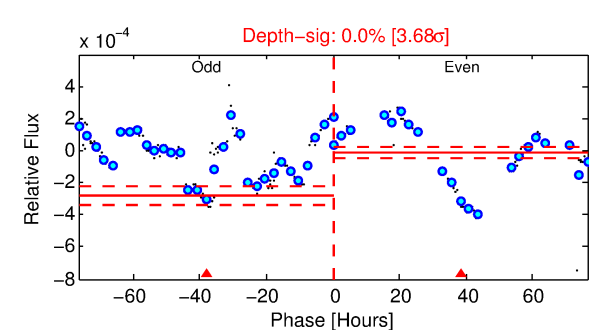
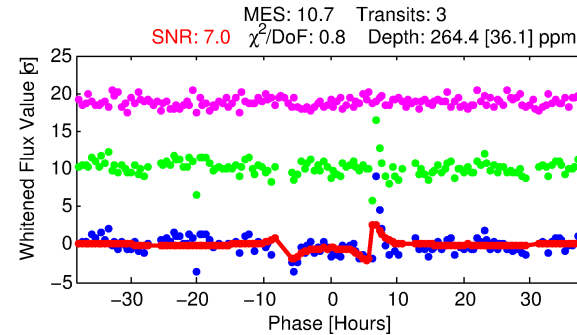
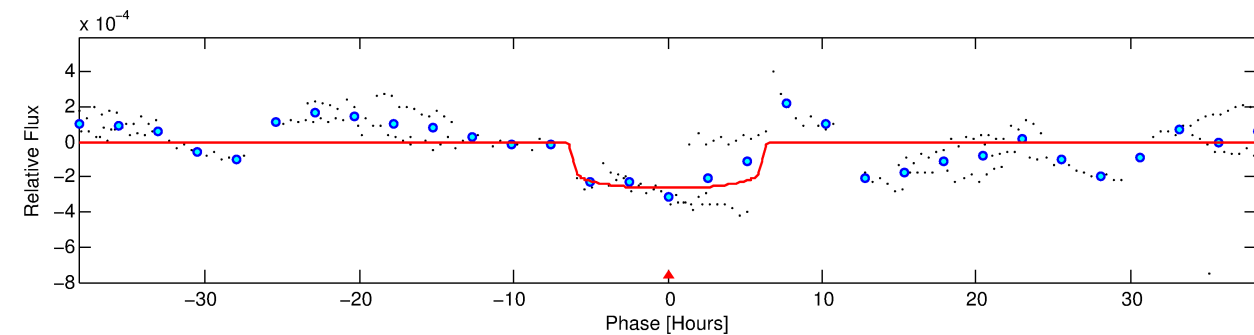
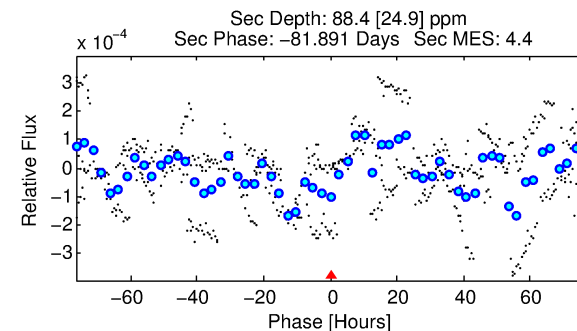
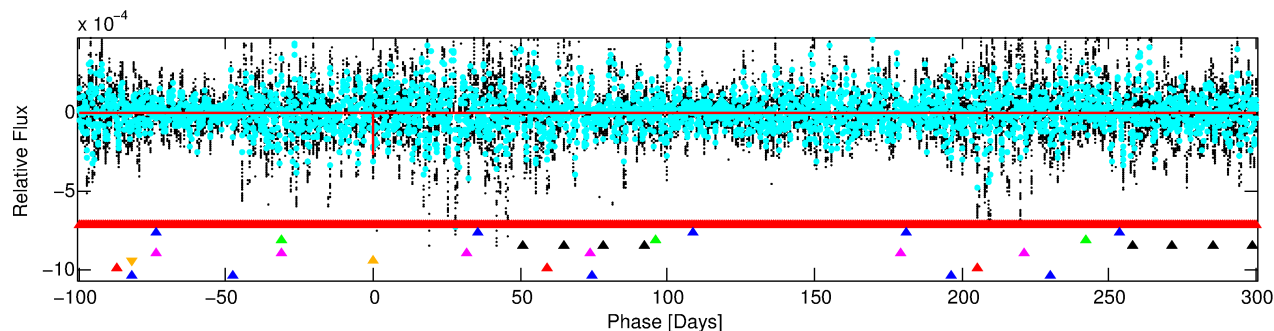
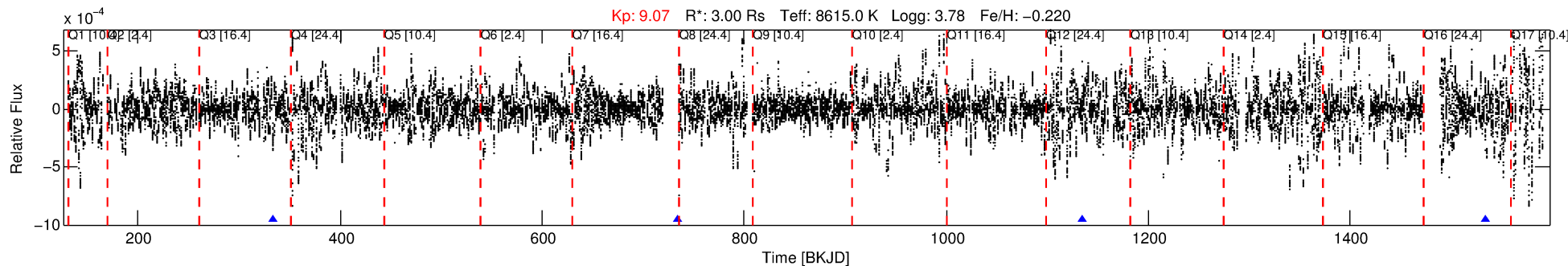
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 001294756-06

No Significant Match Found

DV One-Page Summary

KIC: 1294756 Candidate: 6 of 8 Period: 400.264 d



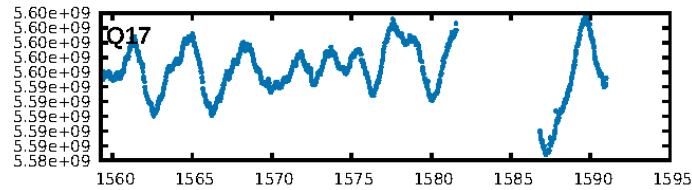
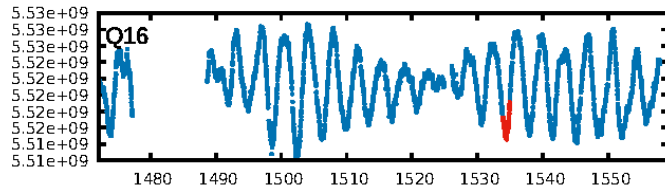
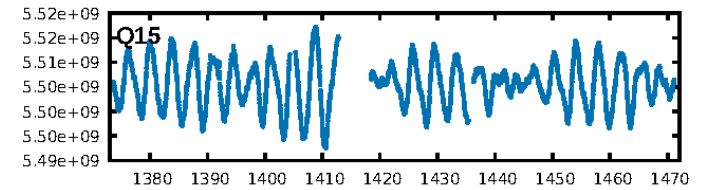
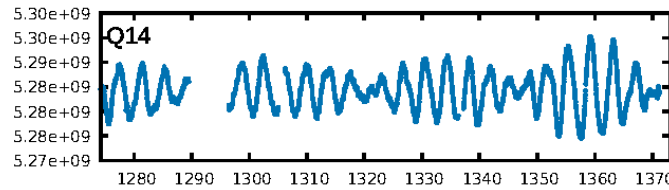
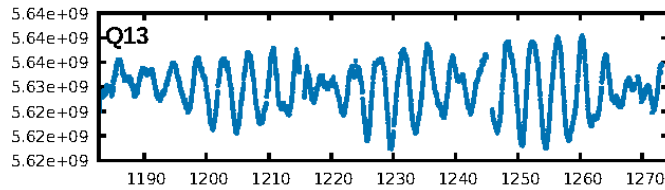
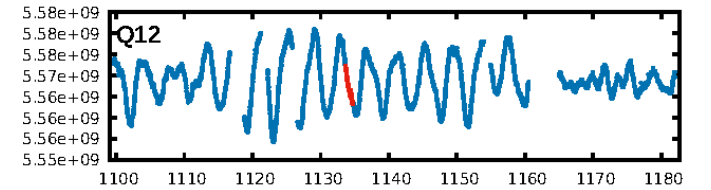
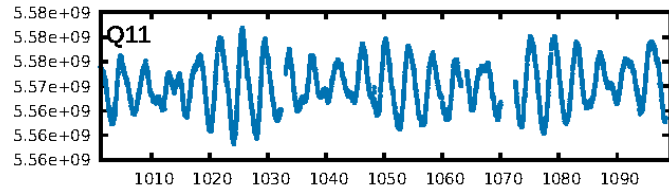
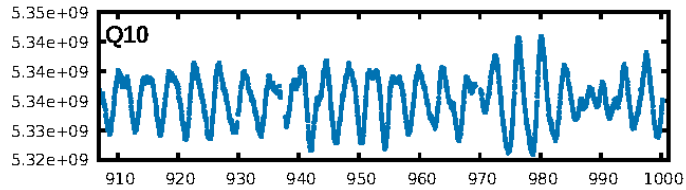
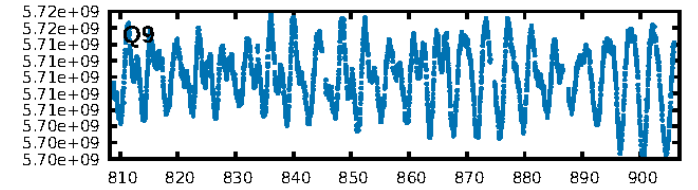
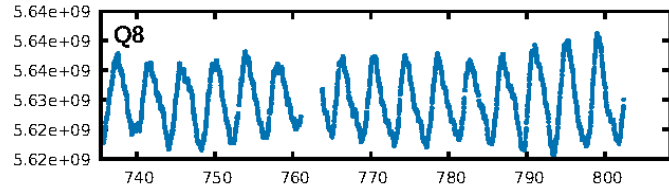
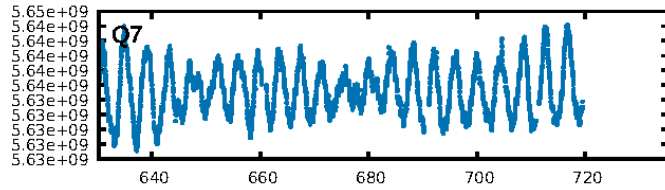
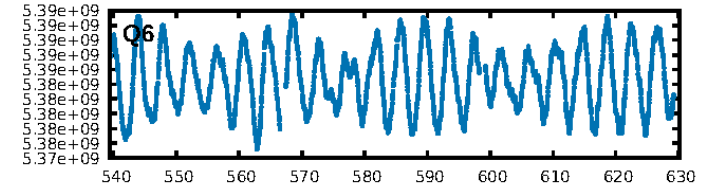
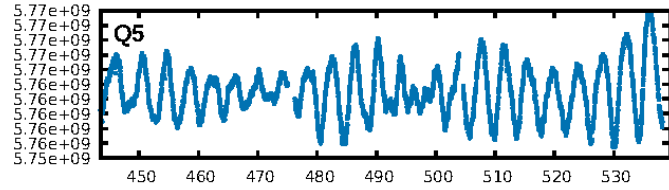
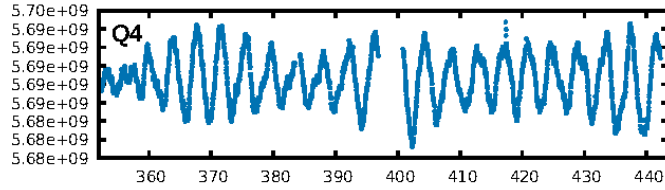
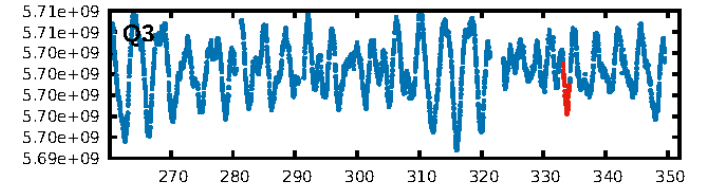
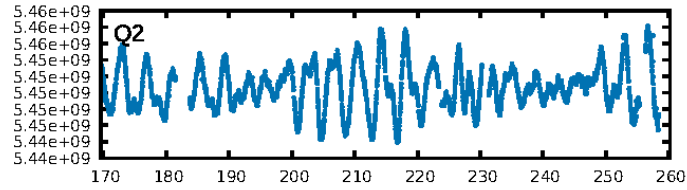
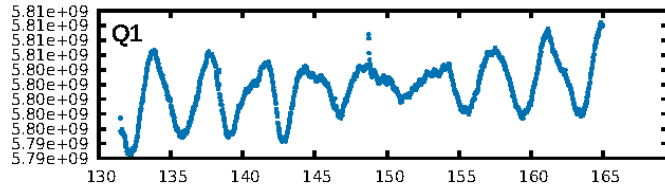
DV Fit Results:

Period = 400.26402 [0.01342] d
Epoch = 333.6580 [0.0169] BKJD
 R_p/R^* = 0.0159 [0.0028]
 a/R^* = 179.45 [170.94]
 b = 0.69 [0.75]
 Seff = 24.80 [17.48]
 Teq = 569 [100] K
 R_p = 5.22 [2.41] R_e
 a = 1.3396 [0.5634] AU
 A_g = 3197.46 [2623.84] [1.22σ]
 Teff = 6616 [805] K [7.46σ]

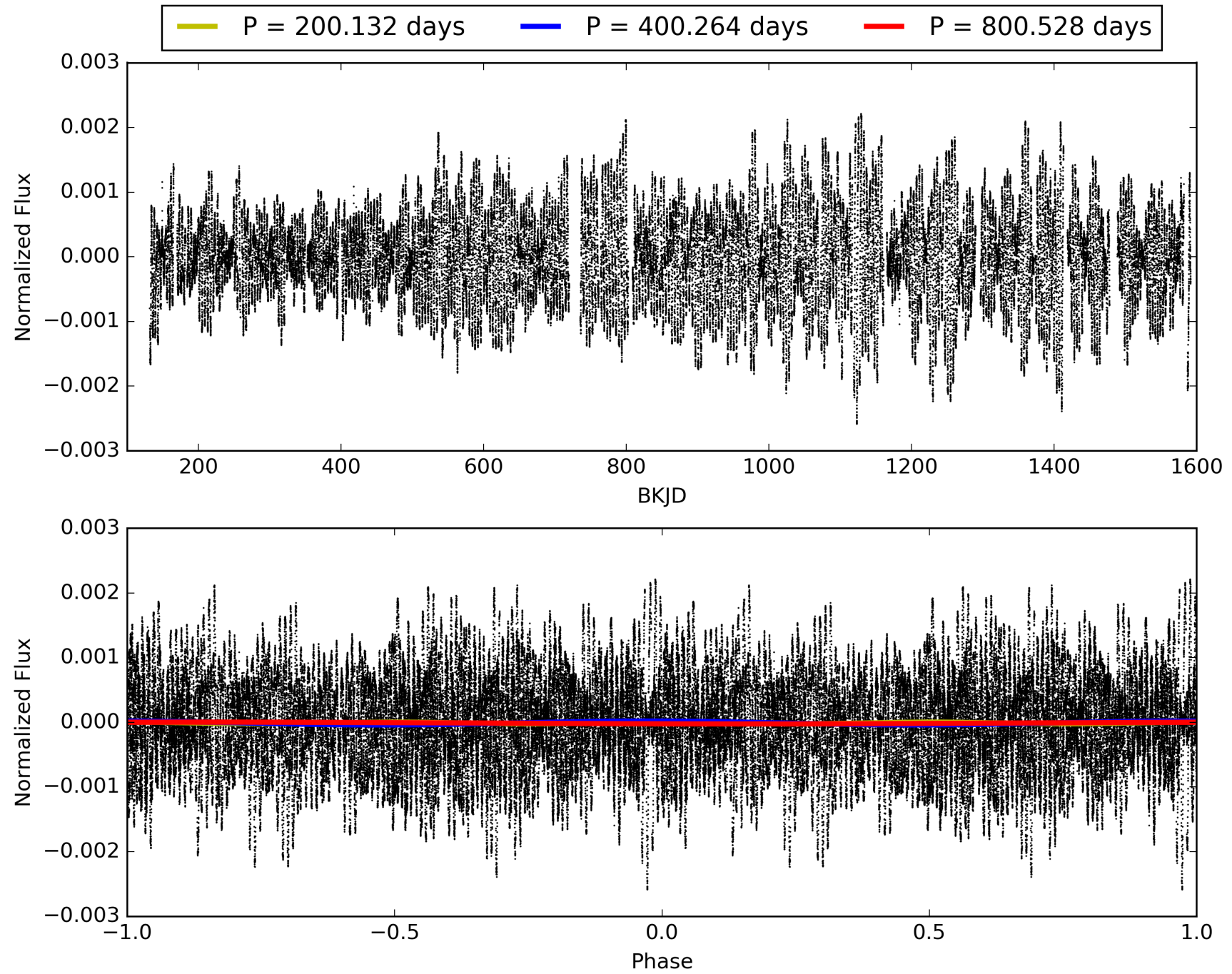
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [99.75σ]
LongPeriod-sig: 100.0% [119.92σ]
ModelChiSquare2-sig: 36.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.76e-13
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: N/A
Centroid-sig: 6.2%
Centroid-so: 4.854 arcsec [2.10σ]
OotOffset-rm: 10.245 arcsec [149.83σ]
KicOffset-rm: 10.471 arcsec [153.03σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 0.00 [0/1]

TCE 001294756-06, PDC Light Curves

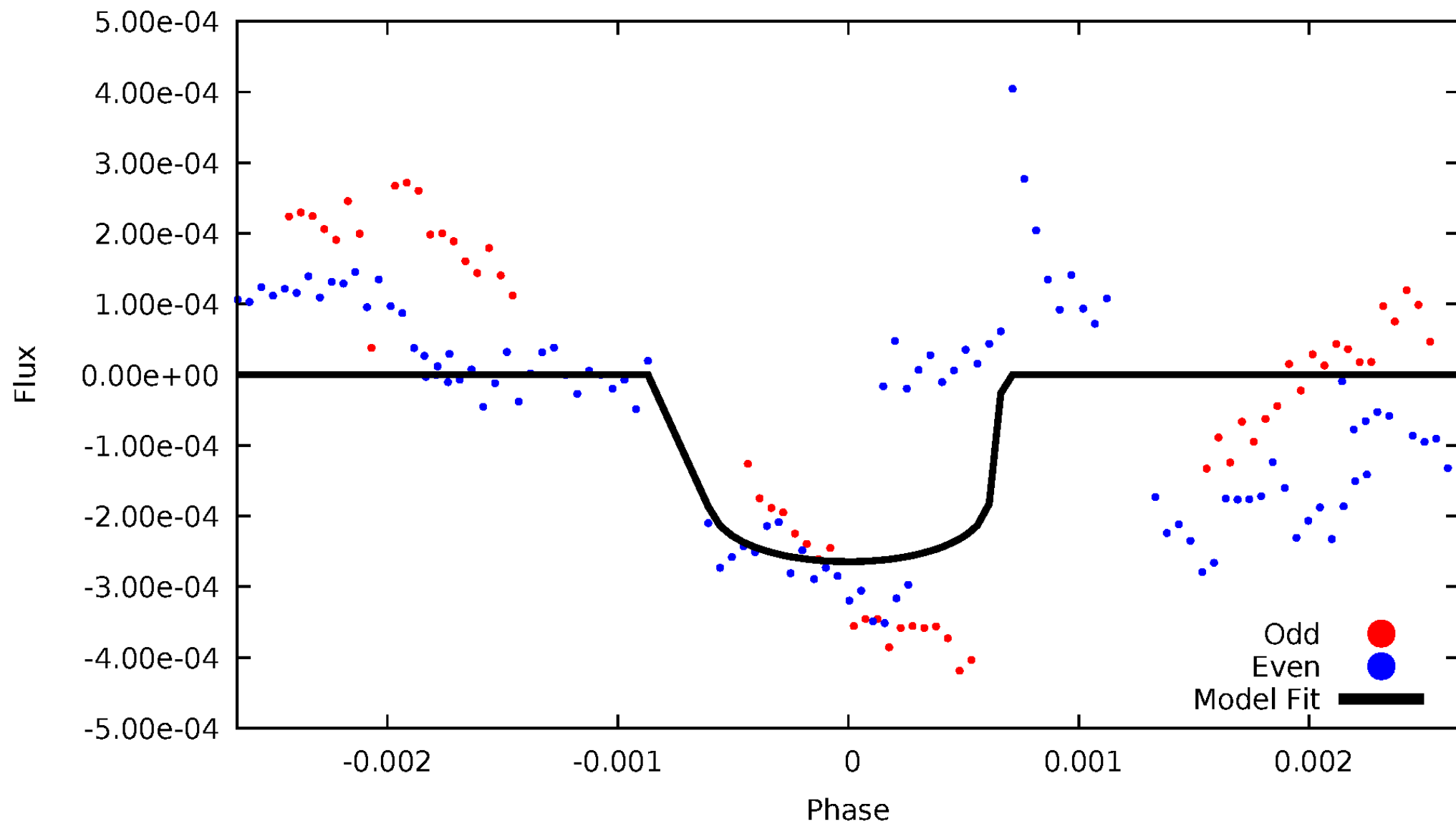


TCE 001294756-06



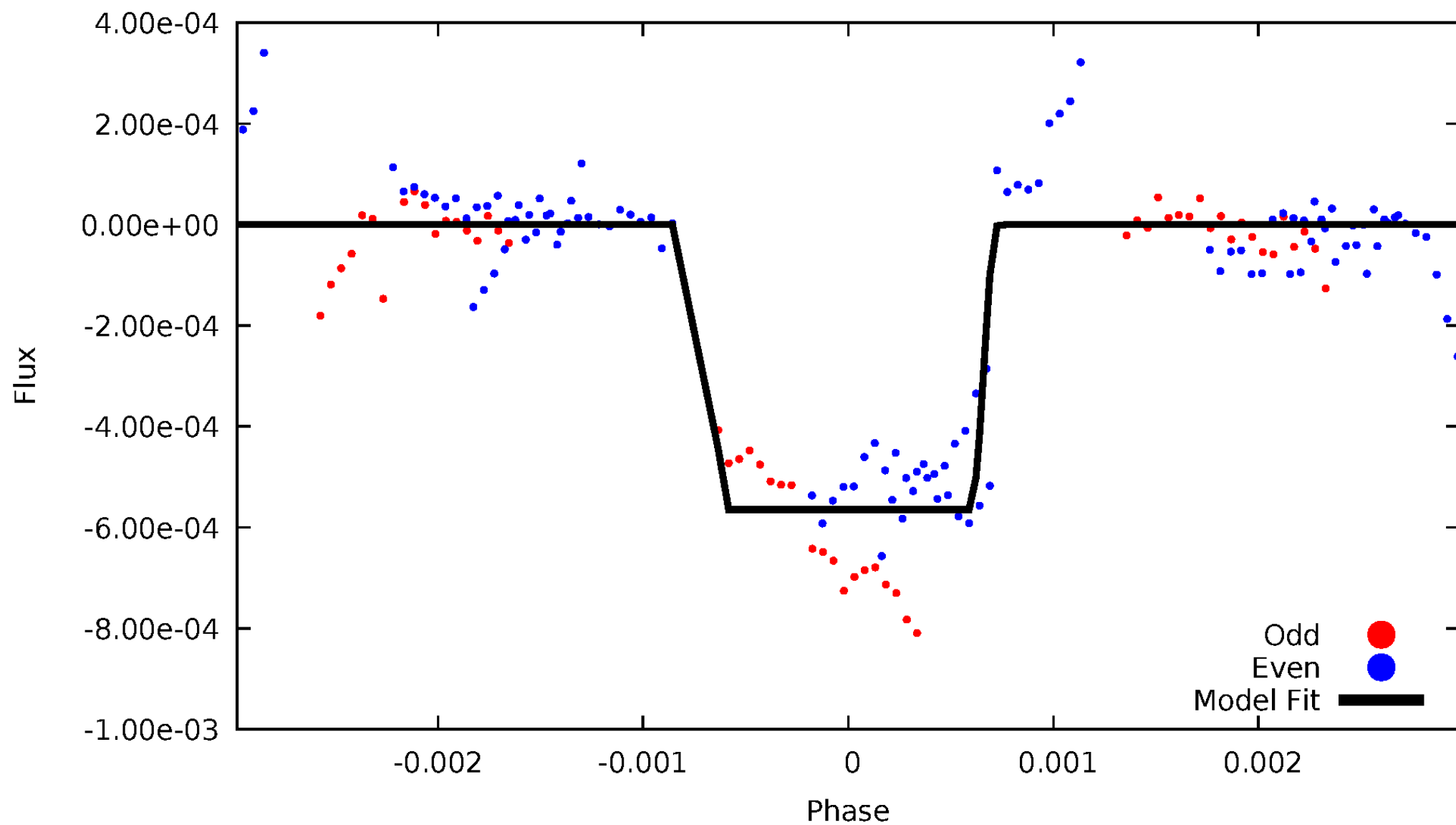
DV Odd/Even

TCE 001294756-06



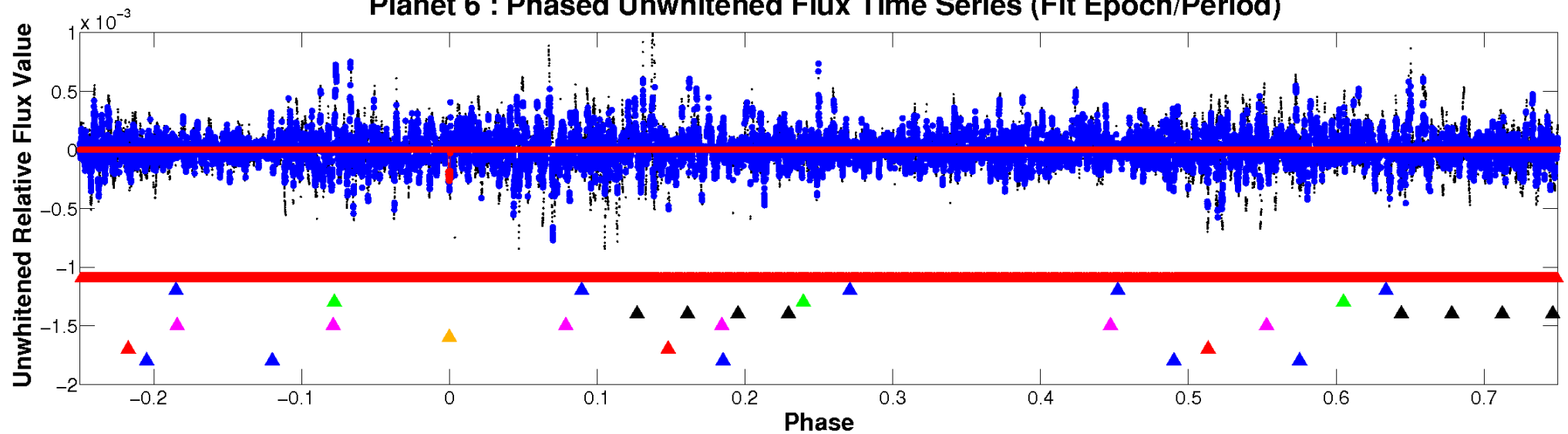
ALT Odd/Even

TCE 001294756-06

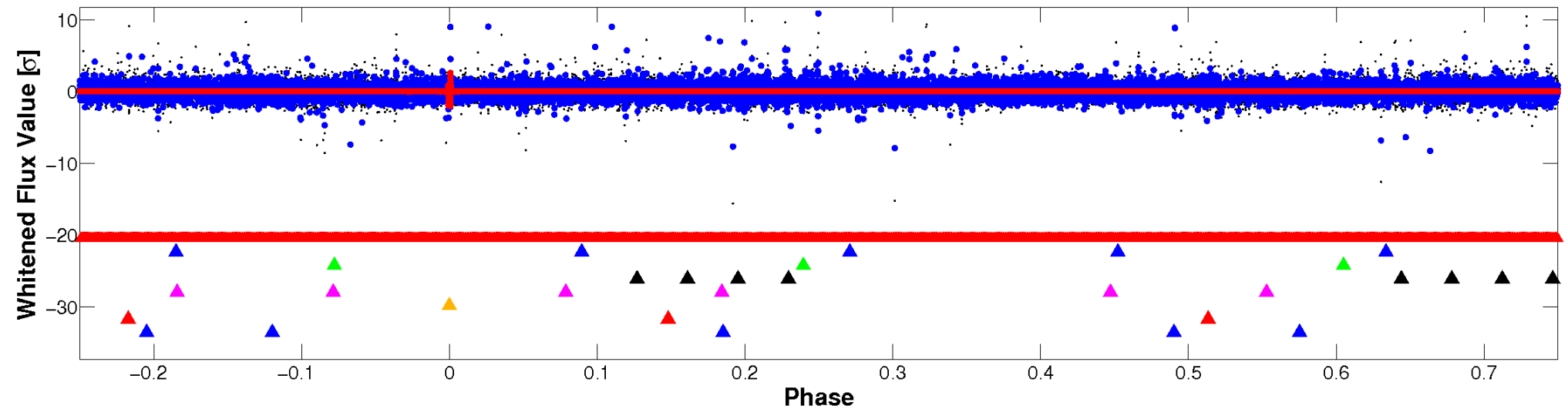


Non-Whitened Vs. Whitened Light Curve

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

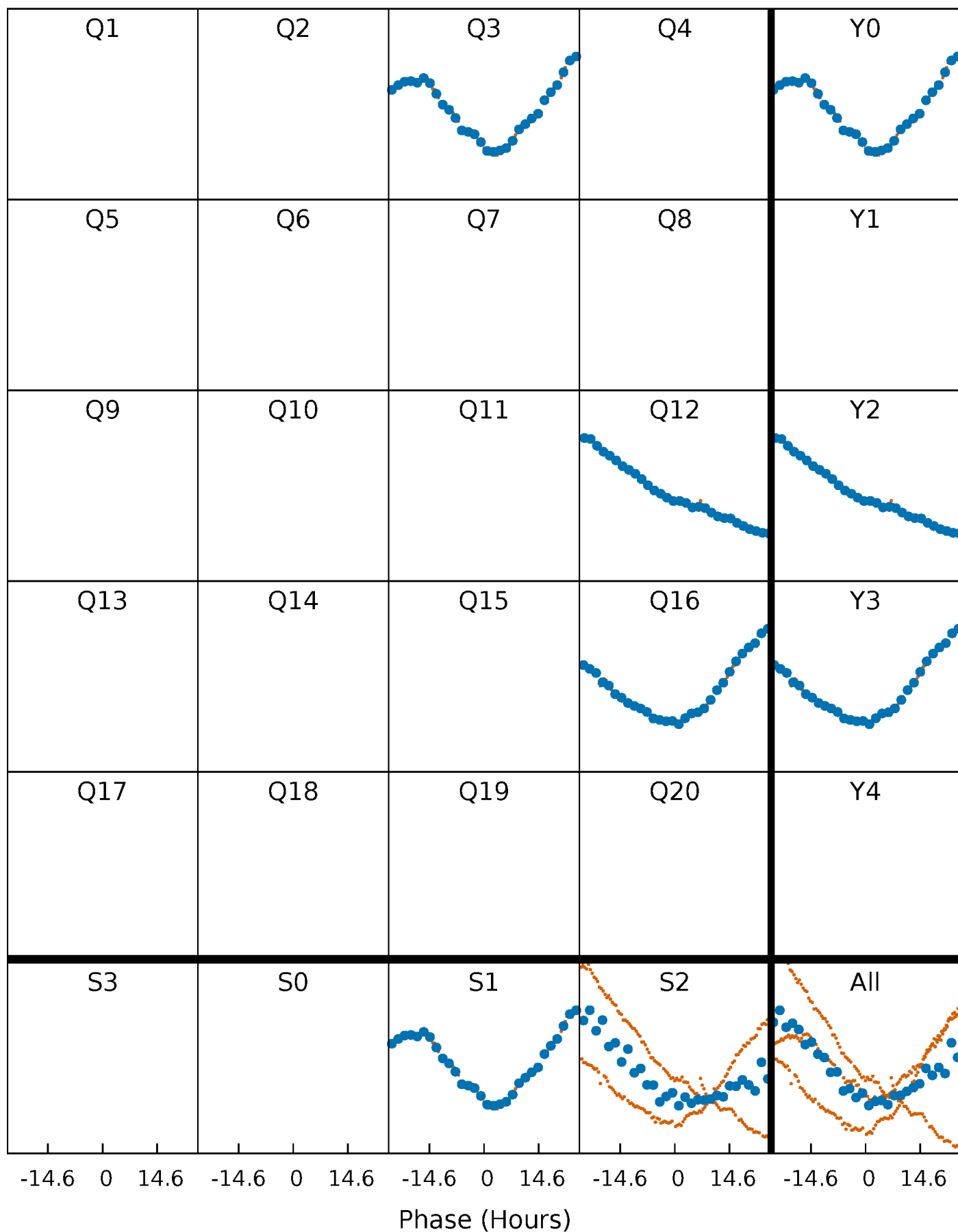


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



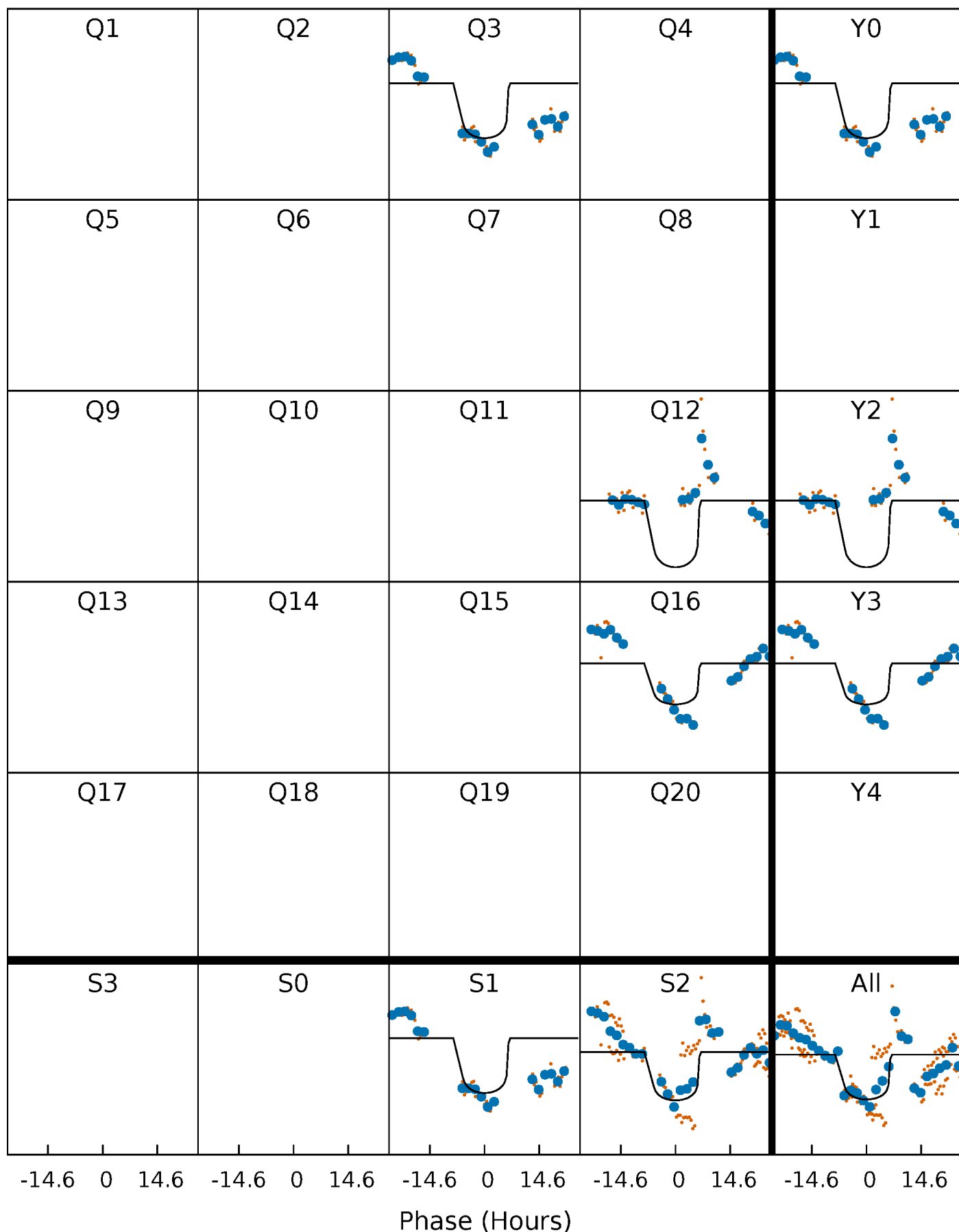
PDC Quarter-Phased Transit Curves

TCE 001294756-06 P=400.264020 Days $T_0=333.657989$ (BKJD)



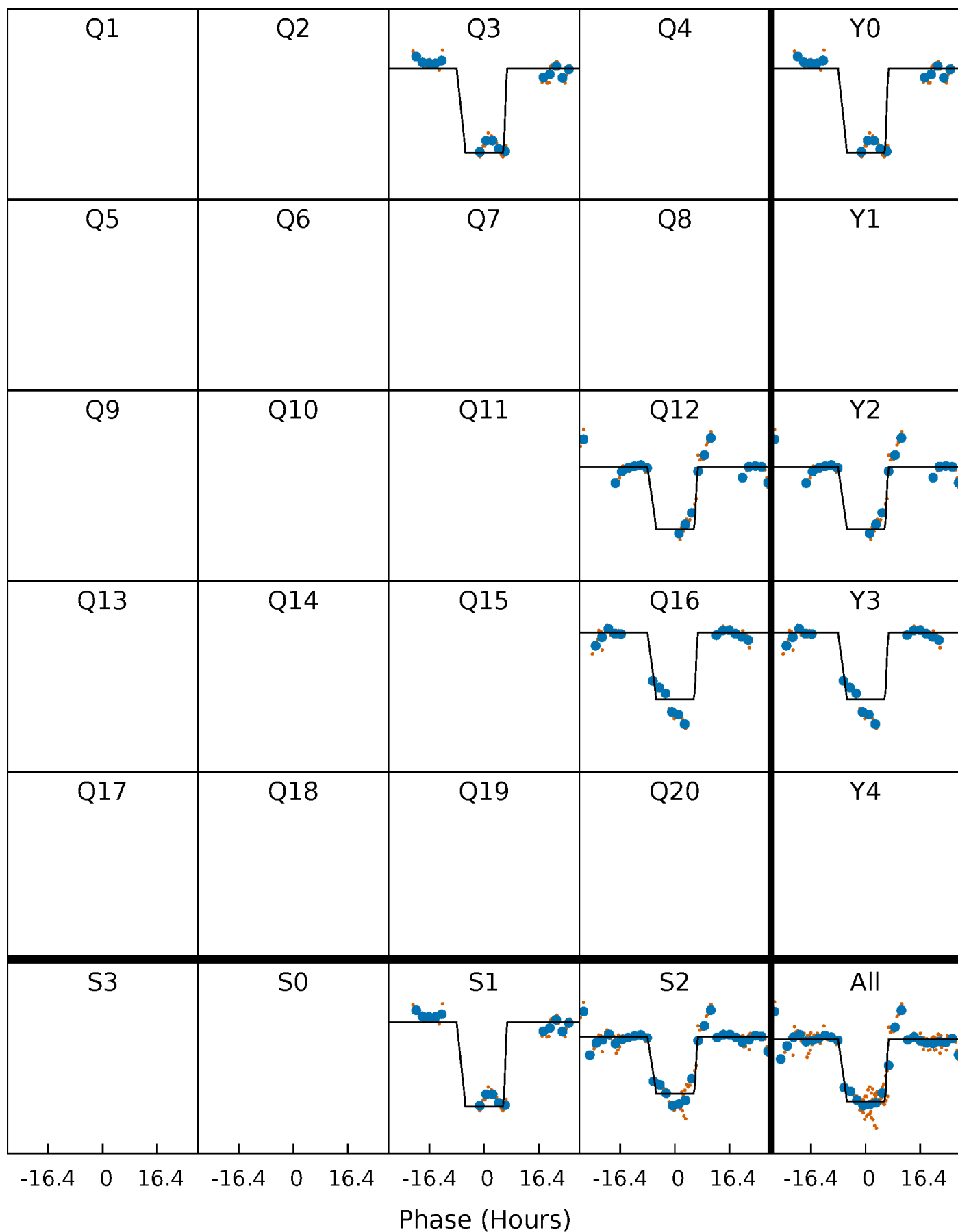
DV Quarter-Phased Transit Curves

TCE 001294756-06 $P=400.264020$ Days $T_0=333.657989$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

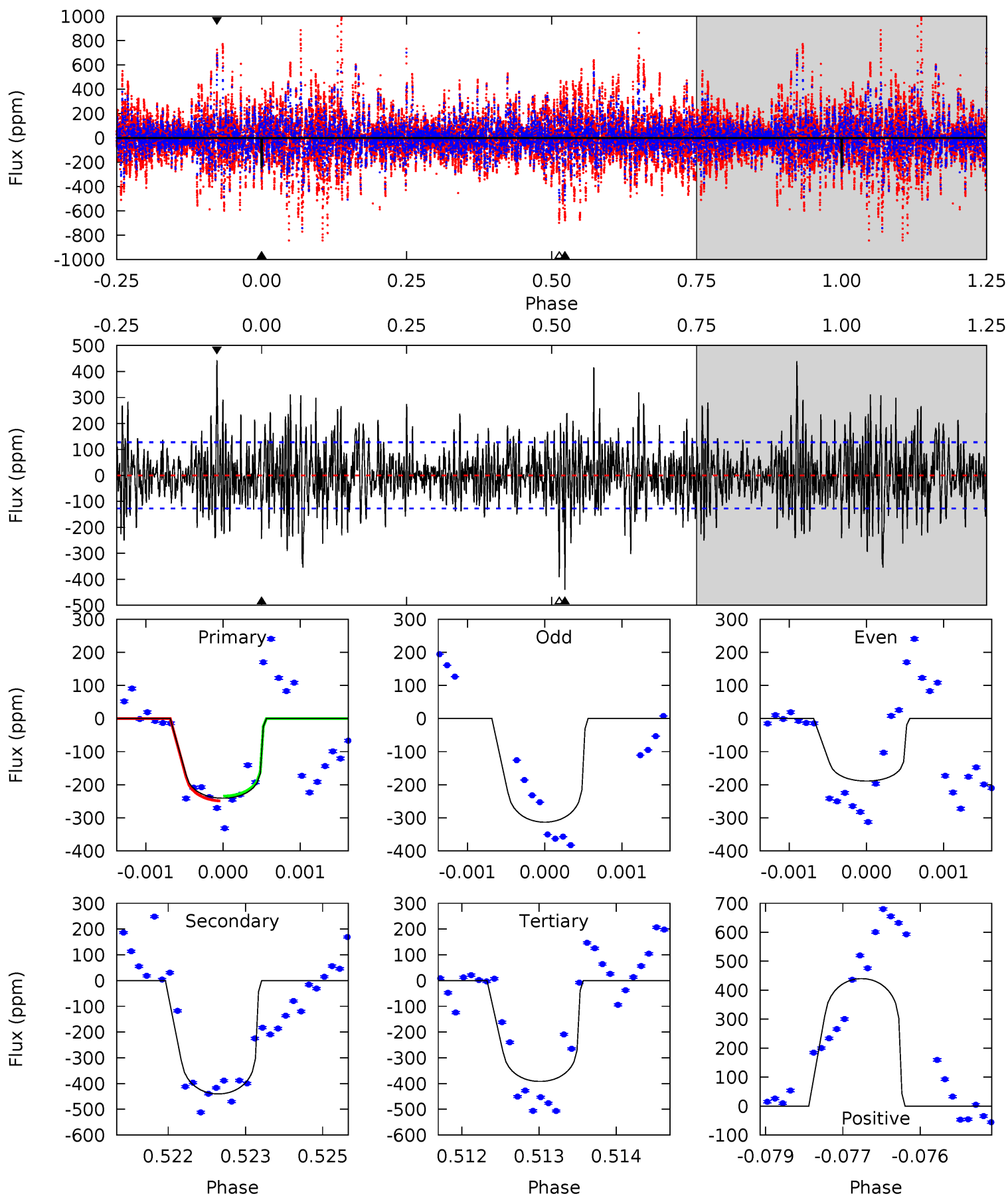
TCE 001294756-06 $P=400.347930$ Days $T_0=333.485646$ (BKJD)



DV Model-Shift Uniqueness Test

001294756-06, P = 400.264020 Days, E = 333.657989 Days

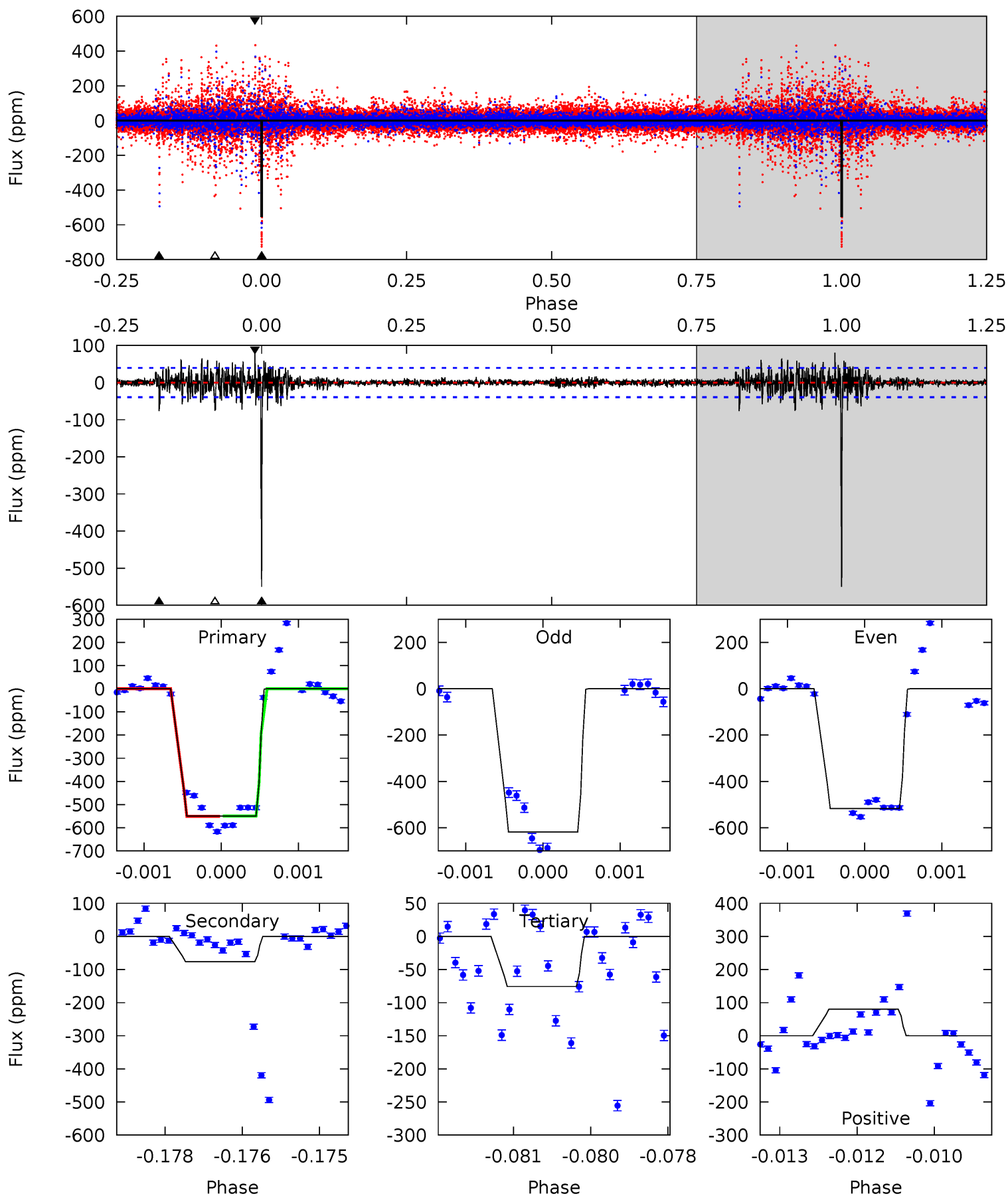
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.2	18.7	16.6	18.7	5.41	3.22	3.90	-6.42	-8.46	2.06	0.01	2.56	0.67	0.50	0.30



Alt Model-Shift Uniqueness Test

001294756-06, P = 400.347930 Days, E = 333.485646 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
75.4	10.5	10.4	11.0	5.40	3.21	1.66	65.0	64.3	0.13	-0.55	6.43	1.04	0.13	0.08



Stellar Parameters For KIC 001294756

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8615^{+238}_{-374}	$3.784^{+0.405}_{-0.135}$	$-0.220^{+0.400}_{-0.350}$	$3.003^{+0.851}_{-1.276}$	$2.002^{+0.411}_{-0.411}$	$0.104^{+0.376}_{-0.047}$
	+3%/-4%	+11%/-4%	+182%/-159%	+28%/-42%	+21%/-21%	+361%/-45%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 001294756-06 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-440 ± 24	$4.90^{+1.32}_{-1.33}$	770^{+65}_{-83}	10393^{+1783}_{-1262}	18361^{+14615}_{-7010}
Alt.	-77 ± 7	$7.42^{+1.63}_{-1.83}$	770^{+65}_{-83}	5065^{+342}_{-290}	1411^{+862}_{-470}

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

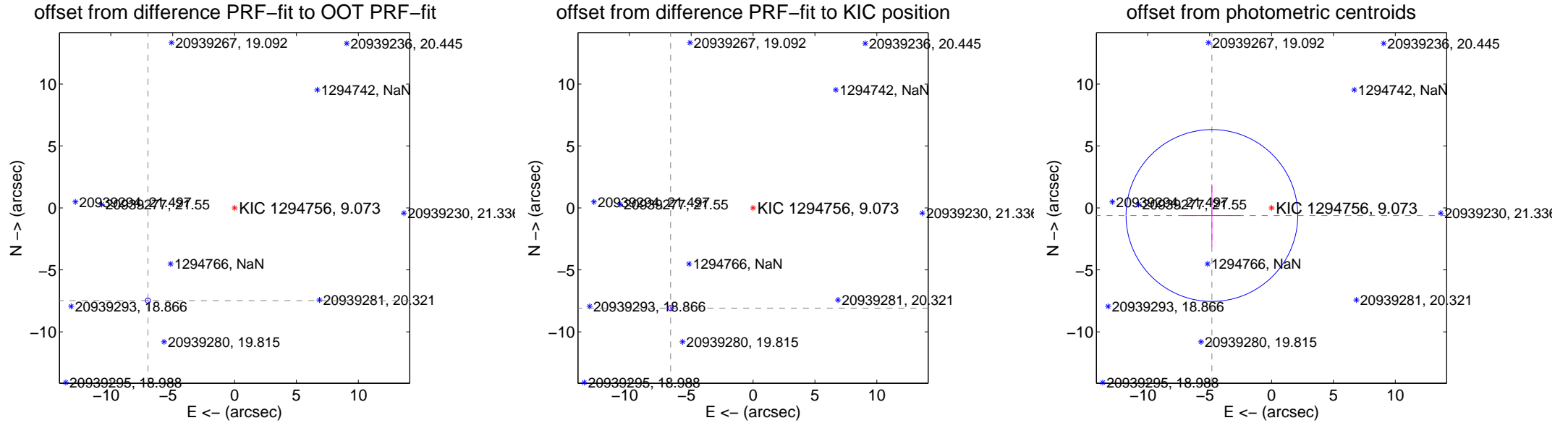
DV Centroid Data

Supplemental centroid analysis for 001294756-06. **Kepler magnitude: 9.07.** Transit SNR 7.01

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.69 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	10.245 \pm 0.068	149.83	7.001 \pm 0.068	-7.479 \pm 0.069
PRF-fit source offset from KIC position	10.471 \pm 0.068	153.03	6.657 \pm 0.068	-8.082 \pm 0.069
photometric centroid source offset	4.85 \pm 2.31	2.10	4.82 \pm 2.31	-0.61 \pm 2.52



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

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

Q1 no difference image



Q1 no OOT image



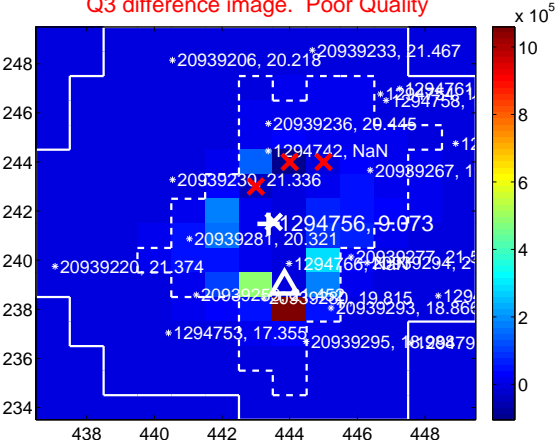
Q2 no difference image



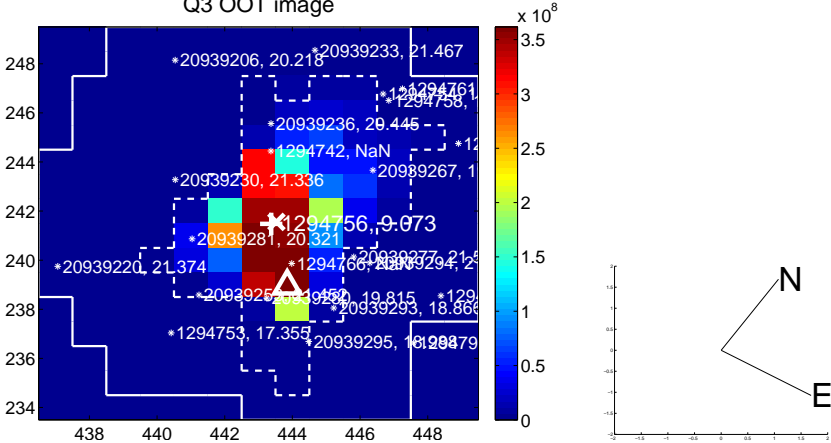
Q2 no OOT image



Q3 difference image. Poor Quality



Q3 OOT image



Q4 no difference image



Q4 no OOT image



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



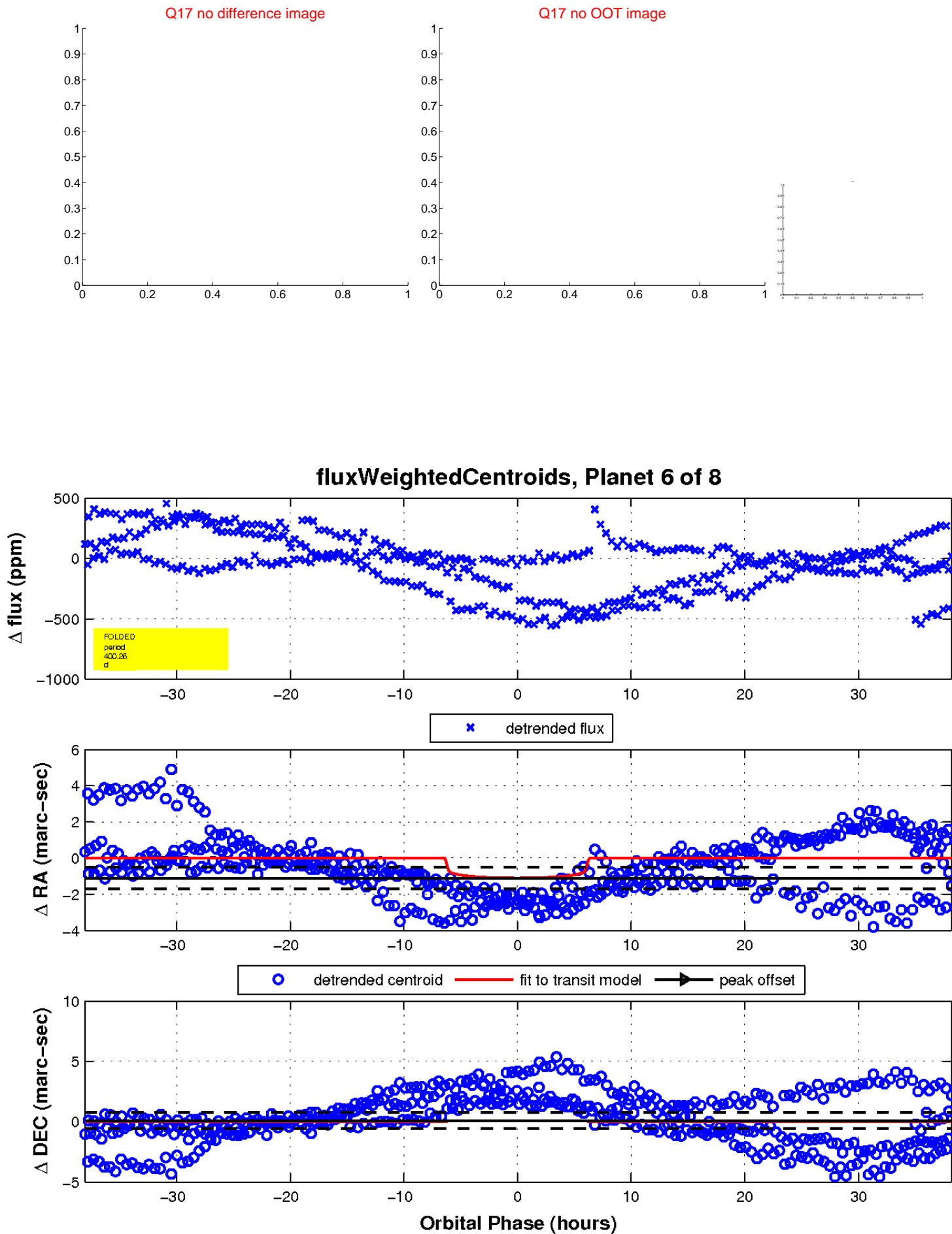
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

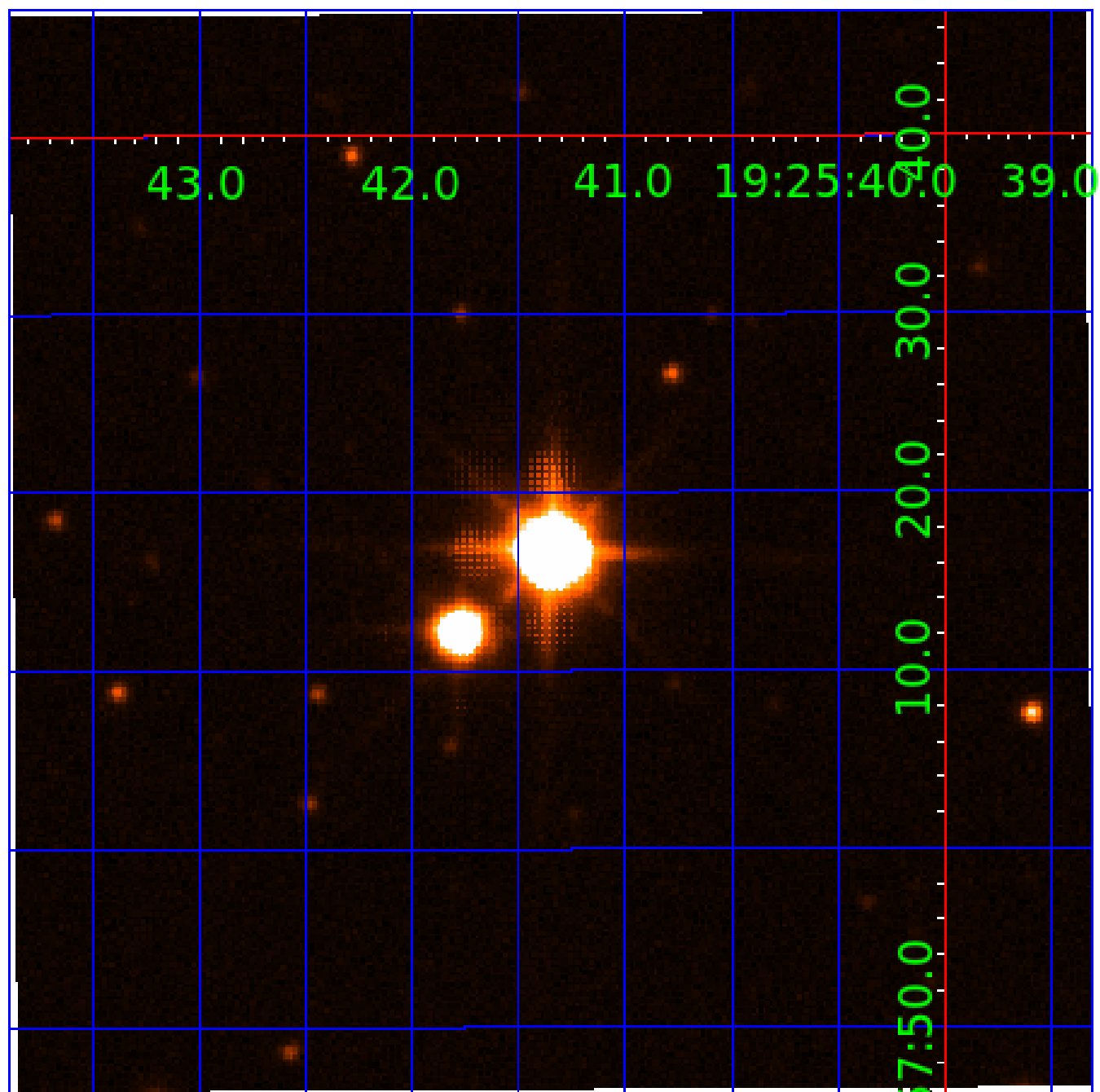


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 001294756

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})
001294756-01	OBS	No	0.795291	131.971363	4.7	2.979	11.8	9.2	3.00	8615	0.75	99292.83
001294756-02	OBS	No	327.663741	259.641741	232.4	11.955	16.0	7.2	3.00	8615	4.89	32.39
001294756-03	OBS	No	527.250441	175.542850	196.8	21.992	10.7	6.0	3.00	8615	4.99	17.18
001294756-04	OBS	No	193.299601	232.194176	162.6	3.125	12.5	8.5	3.00	8615	4.17	65.46
001294756-05	OBS	No	252.752885	302.211336	68.5	23.399	10.8	3.5	3.00	8615	2.84	45.78
001294756-06	OBS	No	400.264020	333.657989	264.4	12.736	10.7	7.0	3.00	8615	5.22	24.80
001294756-07	OBS	No	546.484228	246.698510	353.9	14.817	7.8	8.1	3.00	8615	6.80	16.38
001294756-08	OBS	No	278.183321	251.694824	98.3	10.703	9.5	4.1	3.00	8615	3.46	40.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
001294756-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
001294756-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—INCONSISTENT_TRANS—CENT_SATURATED
001294756-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_SATURATED
001294756-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—CENT_SATURATED
001294756-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
001294756-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_SATURATED
001294756-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—INCONSISTENT_TRANS—CENT_SATURATED
001294756-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_SATURATED

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

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

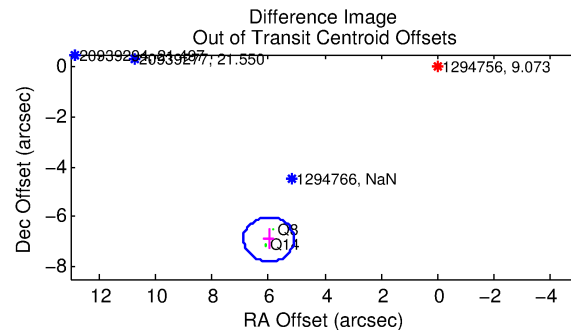
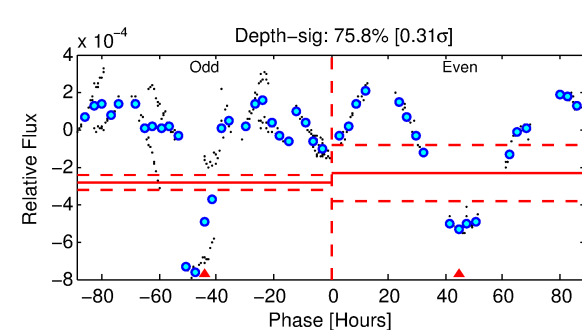
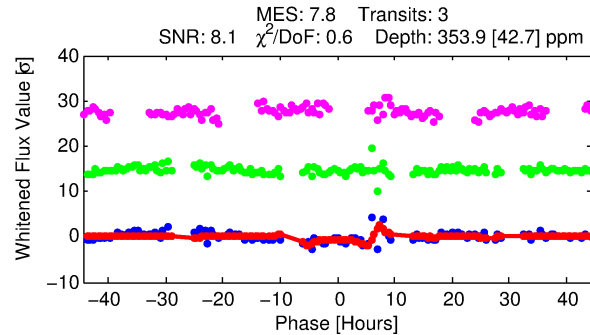
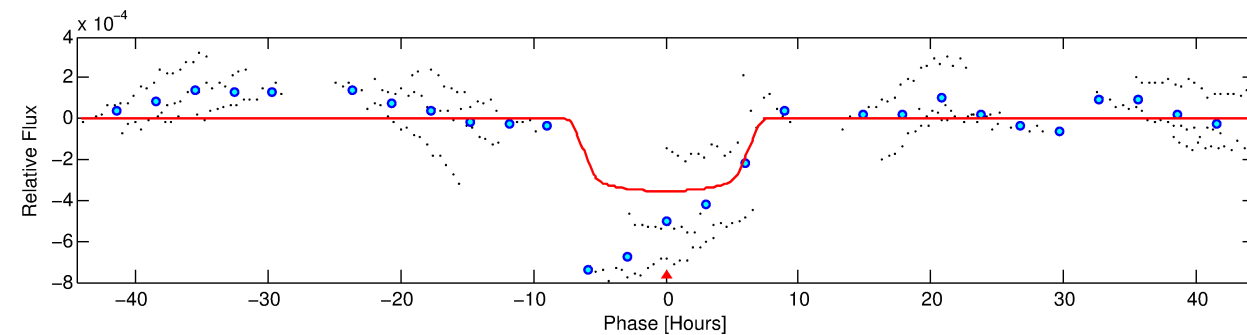
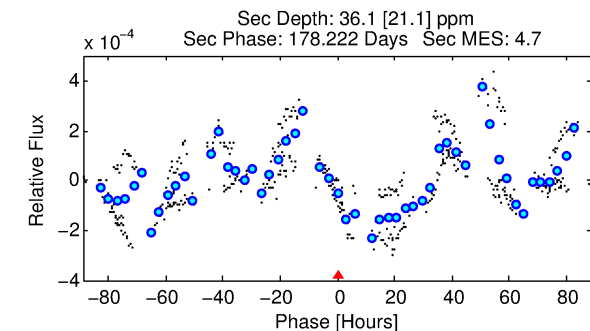
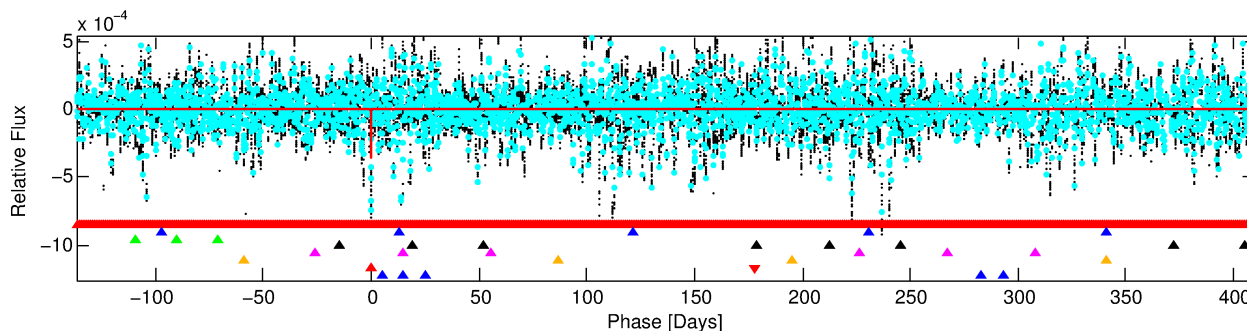
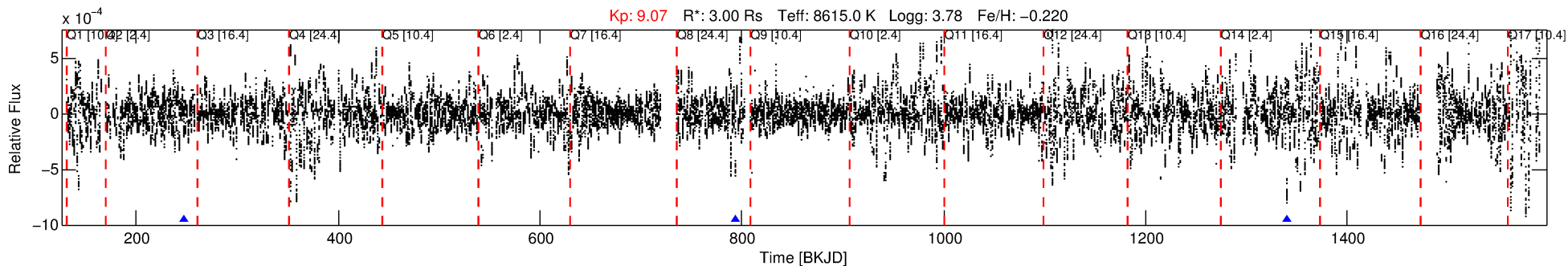
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 001294756-07

No Significant Match Found

DV One-Page Summary

KIC: 1294756 Candidate: 7 of 8 Period: 546.484 d



DV Fit Results:

Period = 546.48423 [0.01037] d
Epoch = 246.6985 [0.0144] BKJD
Rp/R* = 0.0208 [0.0013]
a/R* = 110.08 [10.57]
b = 0.94 [0.01]
Seff = 16.38 [11.54]
Teq = 513 [90] K
Rp = 6.80 [2.92] Re
a = 1.6486 [0.6933] AU
Ag = 1167.10 [1059.49] [1.10σ]
Teff = 4635 [721] K [5.67σ]

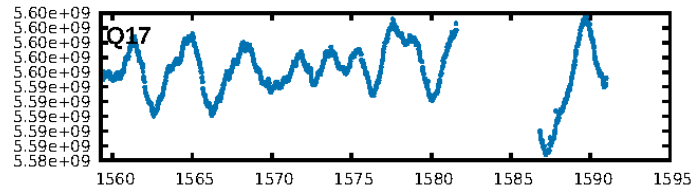
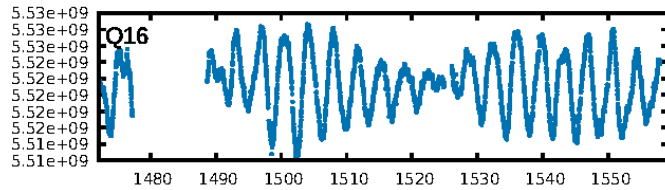
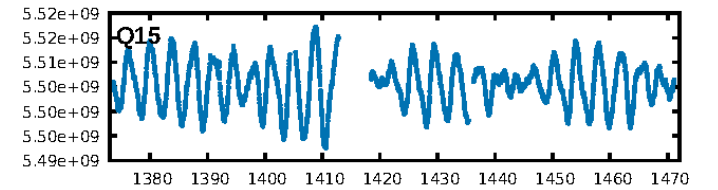
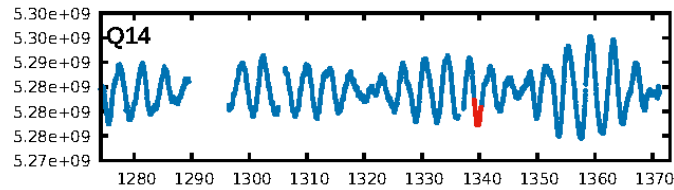
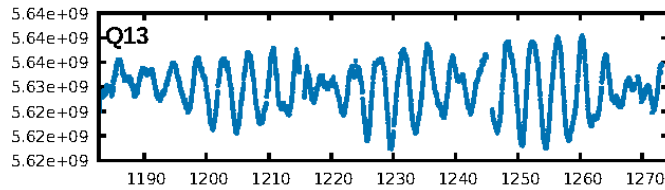
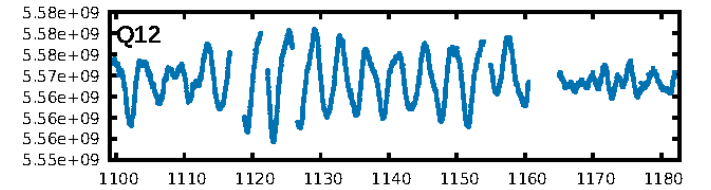
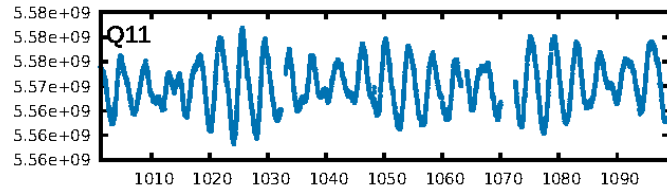
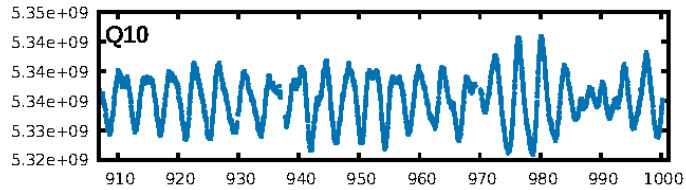
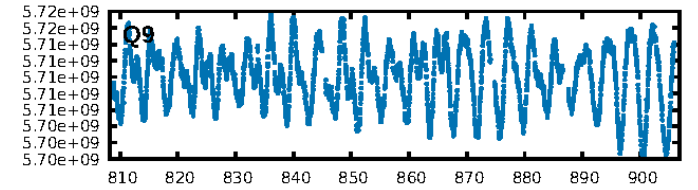
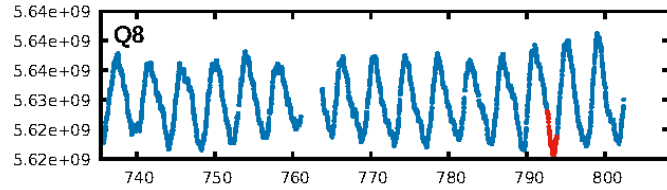
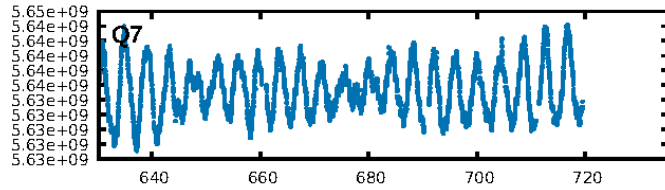
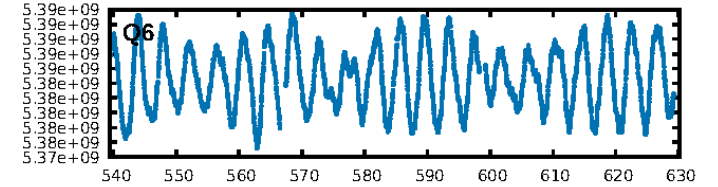
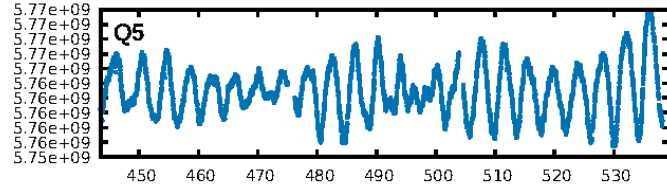
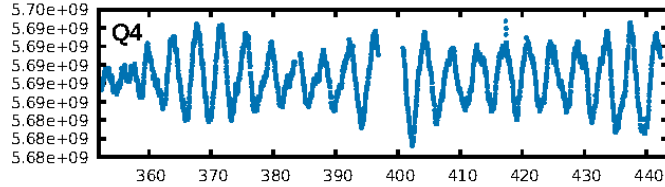
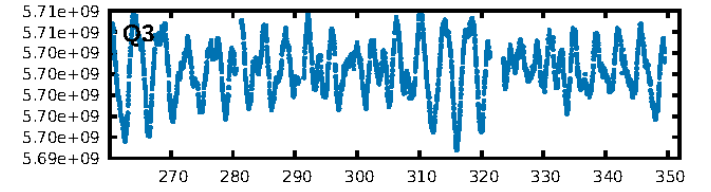
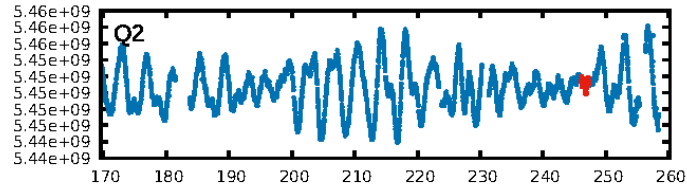
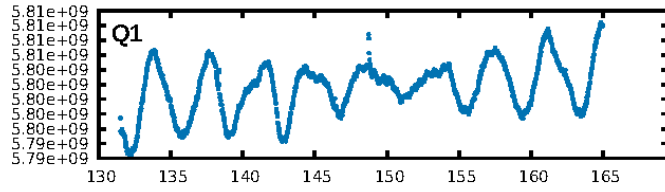
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [17.41σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 46.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.29e-08
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: N/A
Centroid-sig: 78.3%
Centroid-so: 1.068 arcsec [0.36σ]
OotOffset-rm: 9.145 arcsec [30.78σ]
KicOffset-rm: 10.975 arcsec [12.67σ]
OotOffset-st: 1/0/1/0 [2]
KicOffset-st: 1/0/1/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 0.00 [0/2]

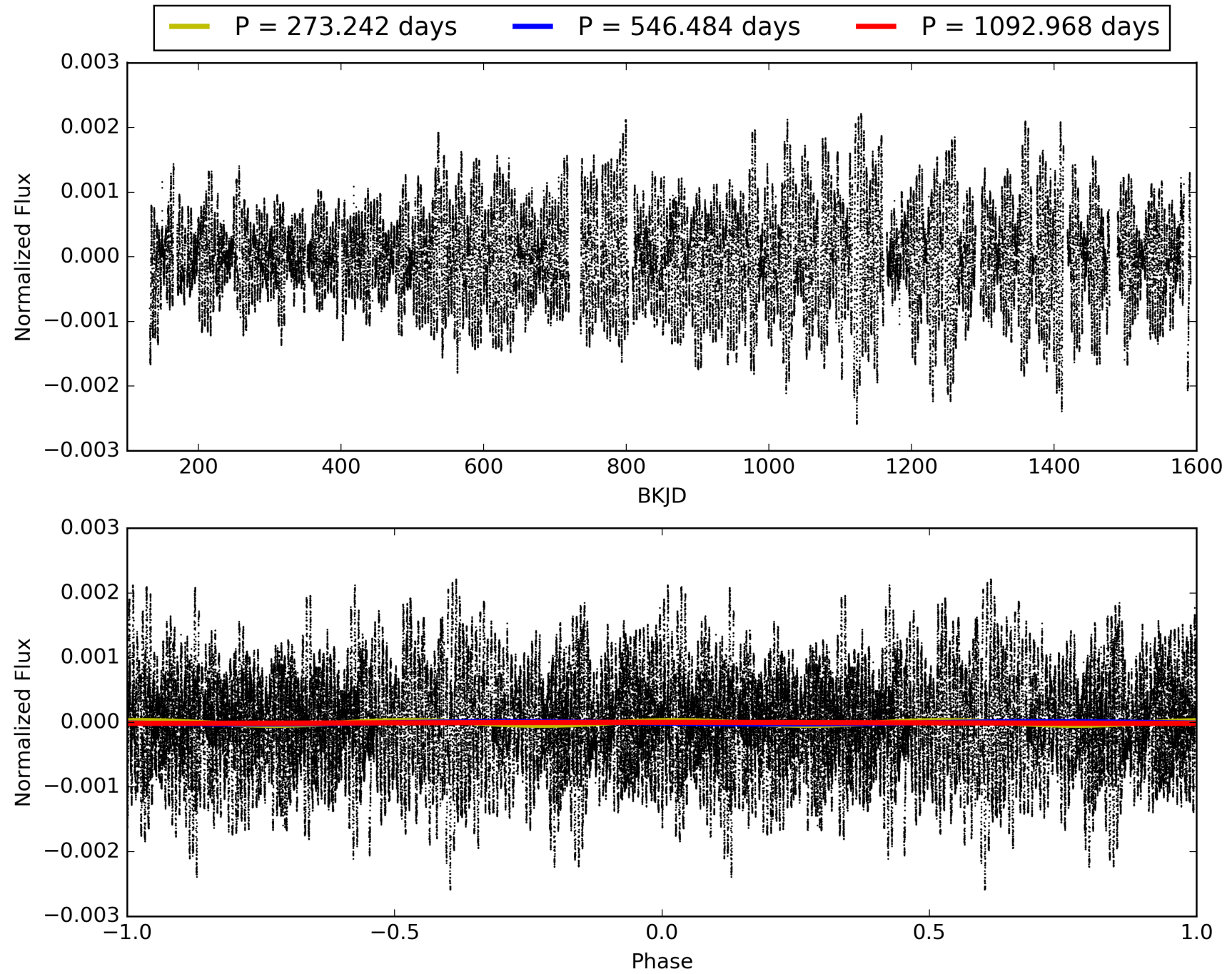
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 00:08:23 Z

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

TCE 001294756-07, PDC Light Curves

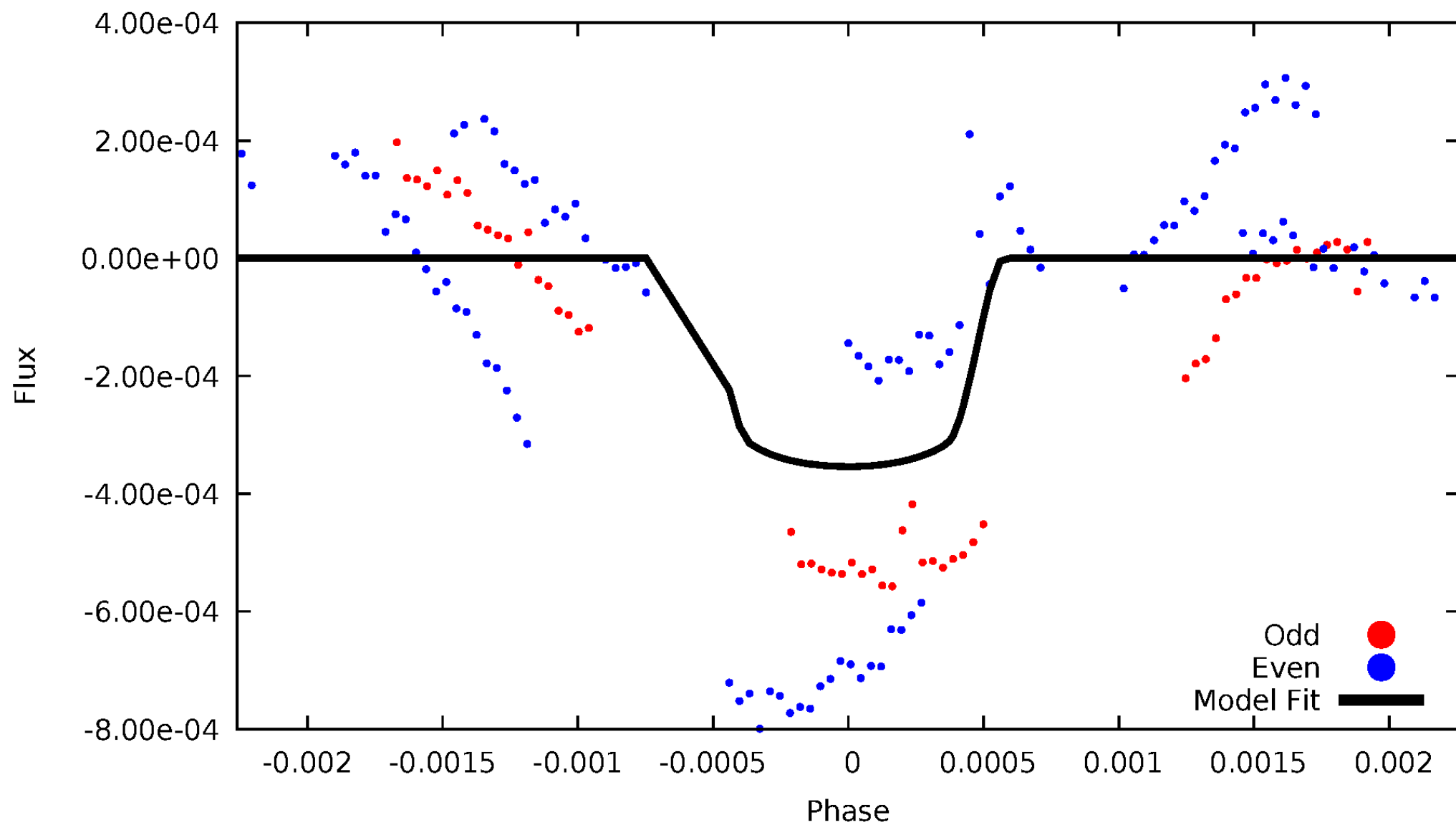


TCE 001294756-07



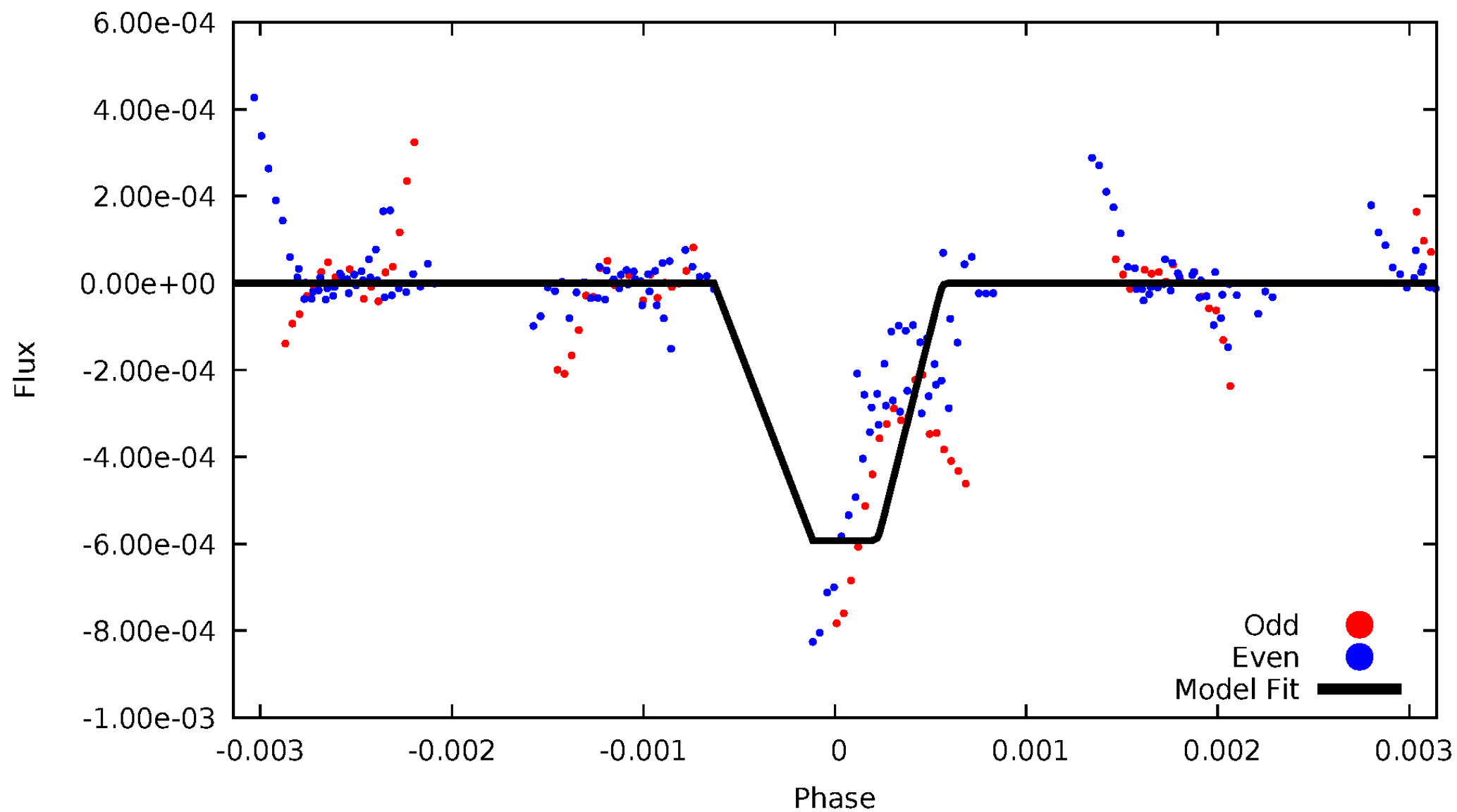
DV Odd/Even

TCE 001294756-07



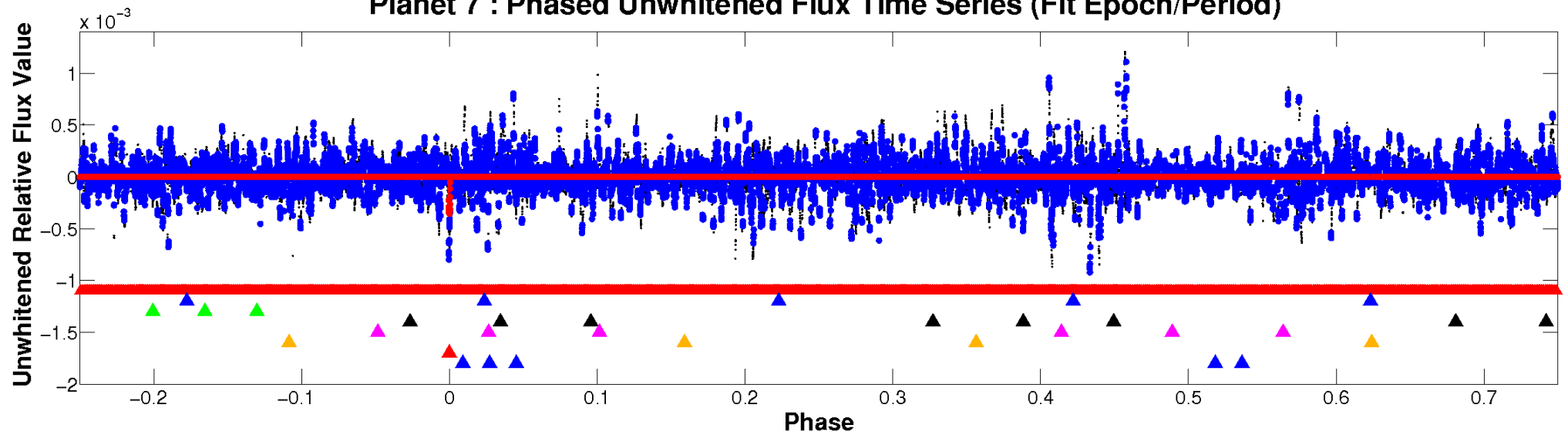
ALT Odd/Even

TCE 001294756-07

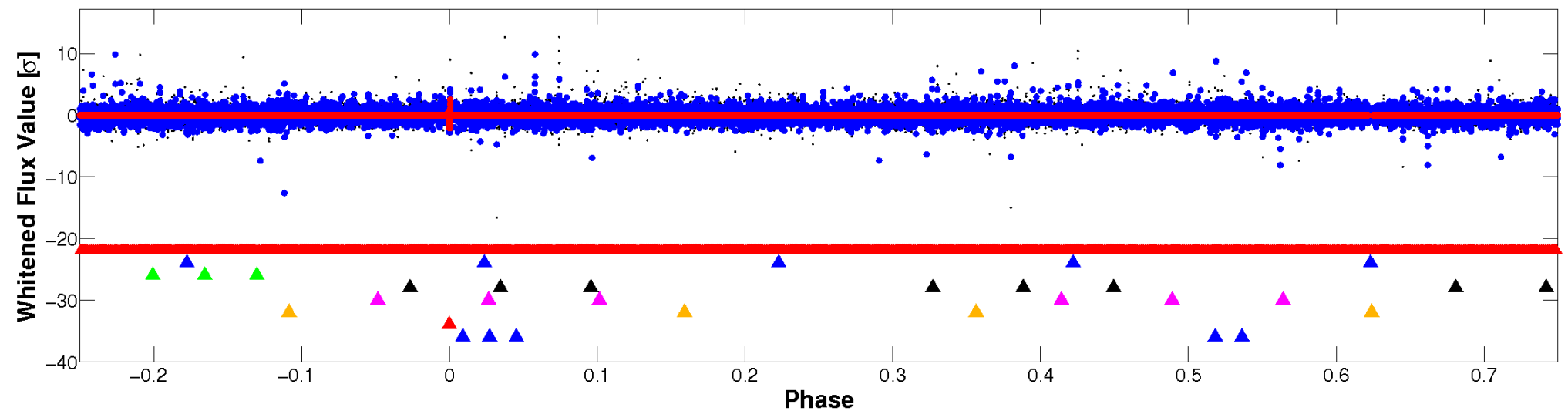


Non-Whitened Vs. Whitened Light Curve

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

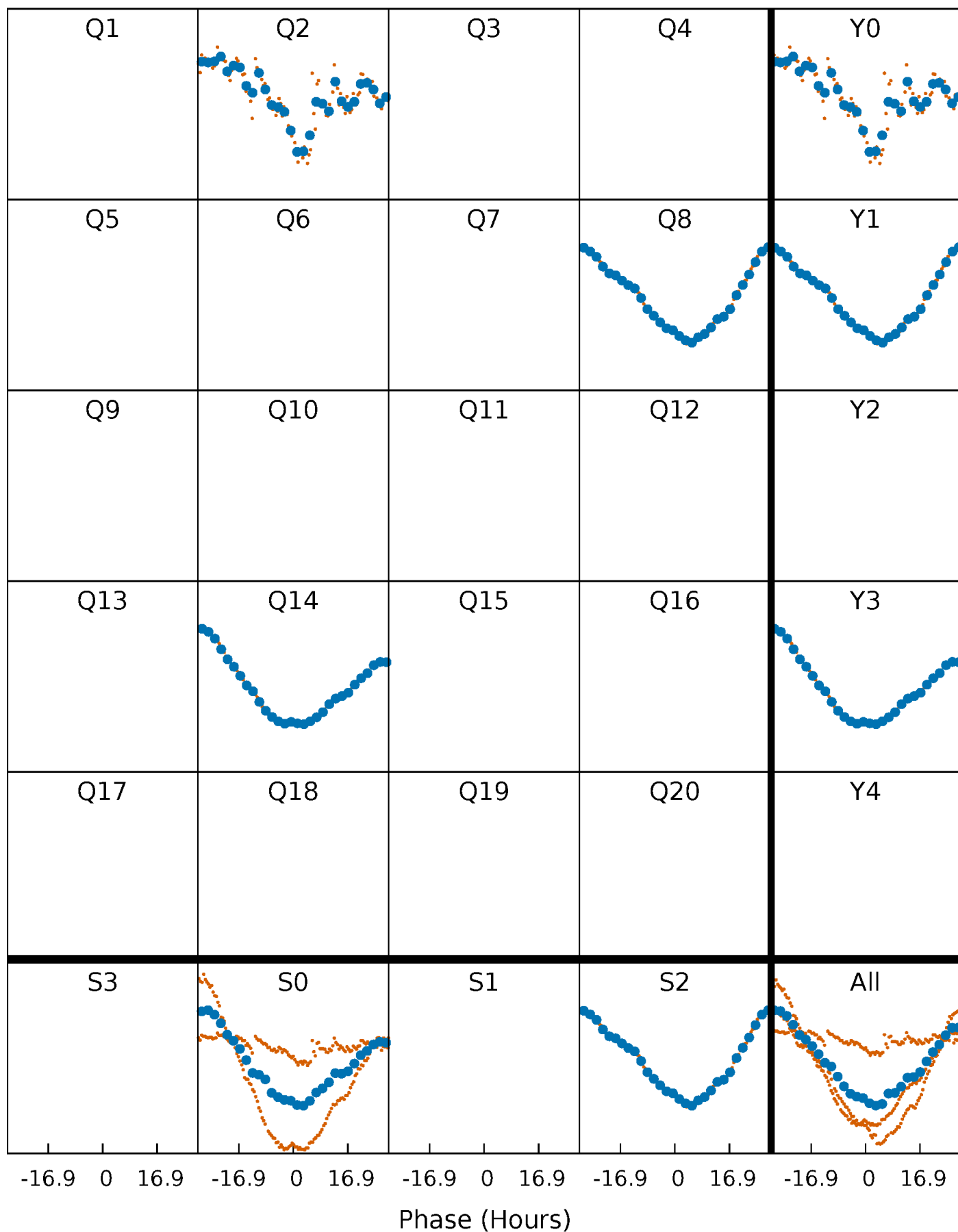


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



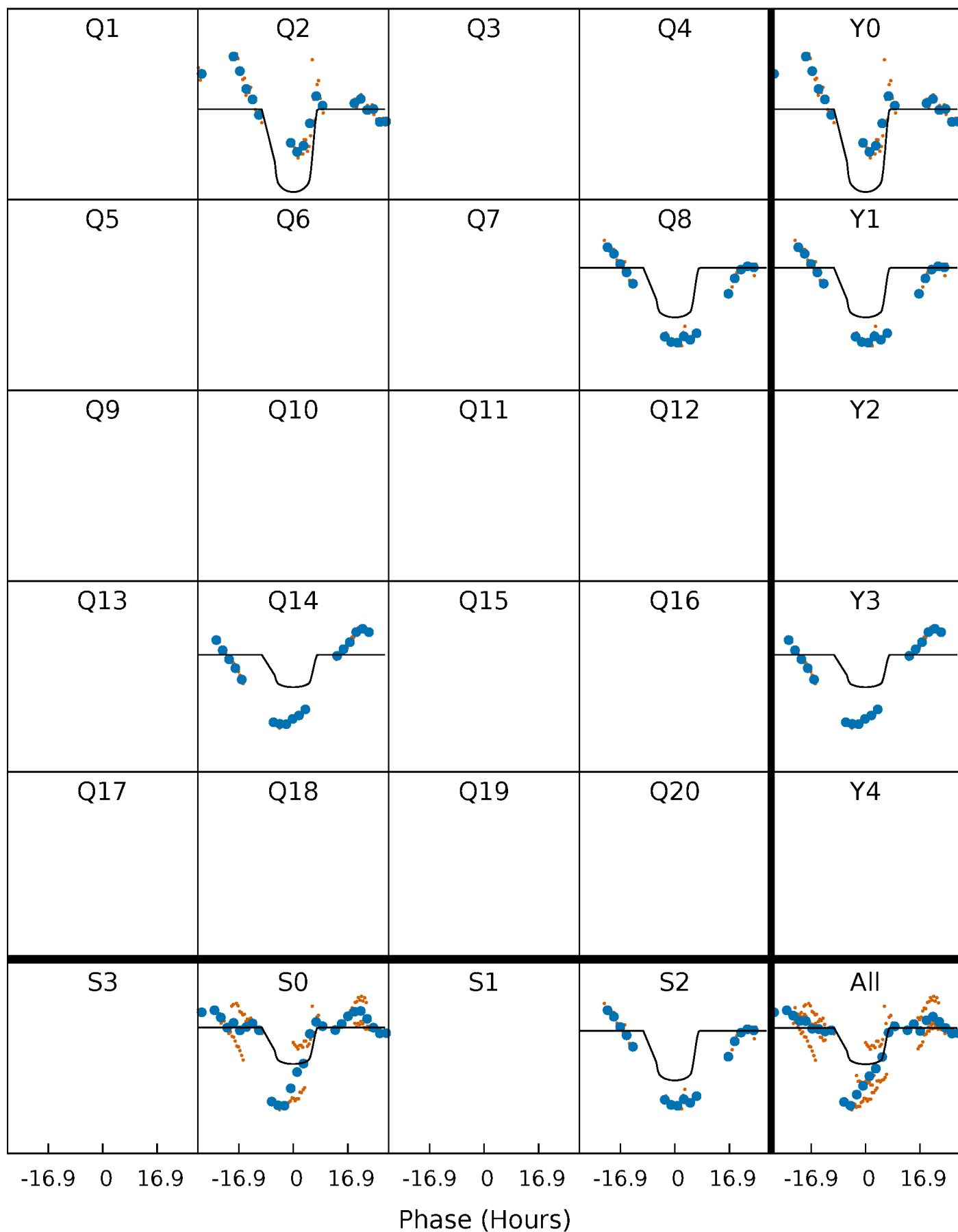
PDC Quarter-Phased Transit Curves

TCE 001294756-07 $P=546.484228$ Days $T_0=246.698510$ (BKJD)



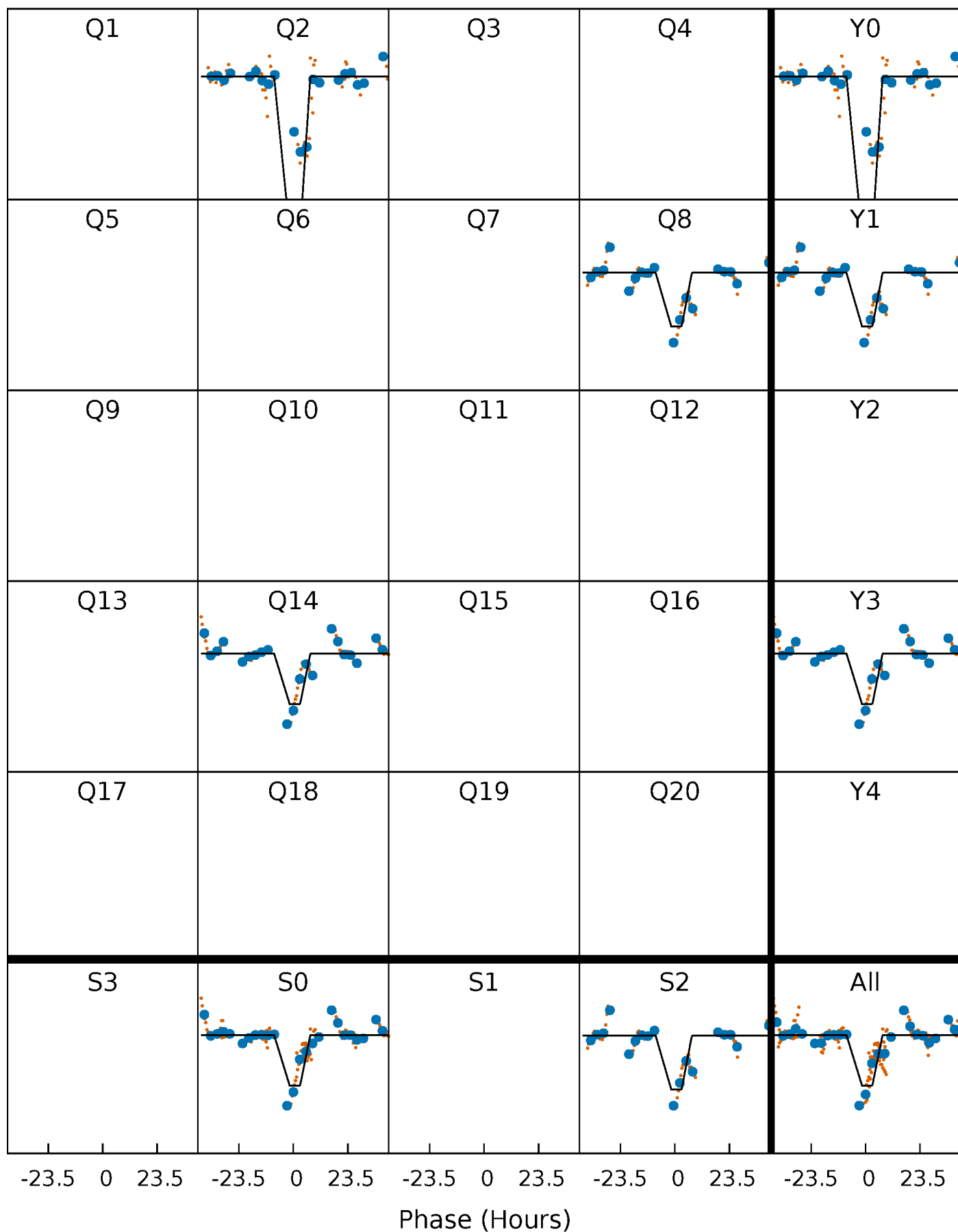
DV Quarter-Phased Transit Curves

TCE 001294756-07 $P=546.484228$ Days $T_0=246.698510$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

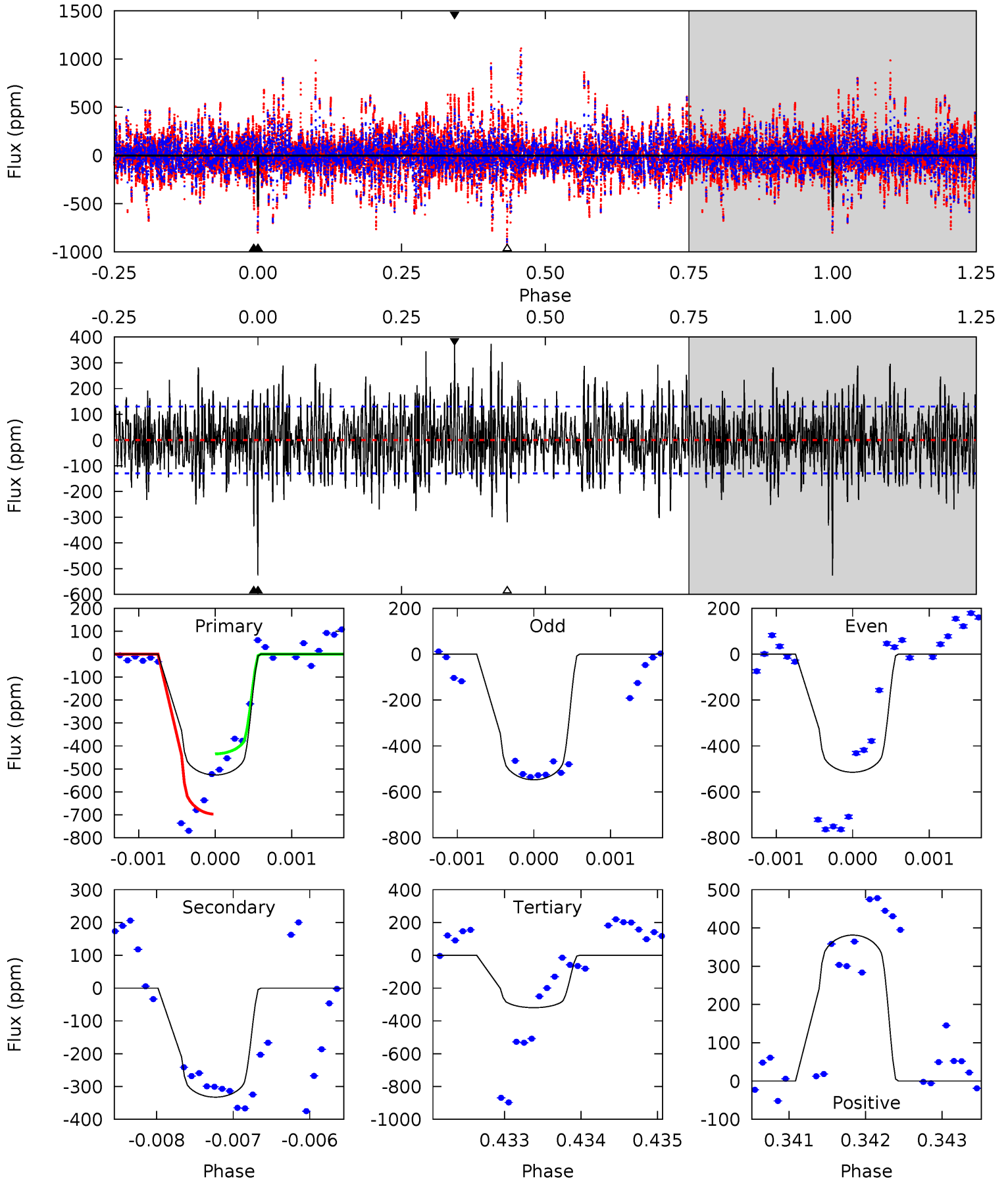
TCE 001294756-07 $P=546.427450$ Days $T_0=246.635142$ (BKJD)



DV Model-Shift Uniqueness Test

001294756-07, P = 546.484228 Days, E = 246.698510 Days

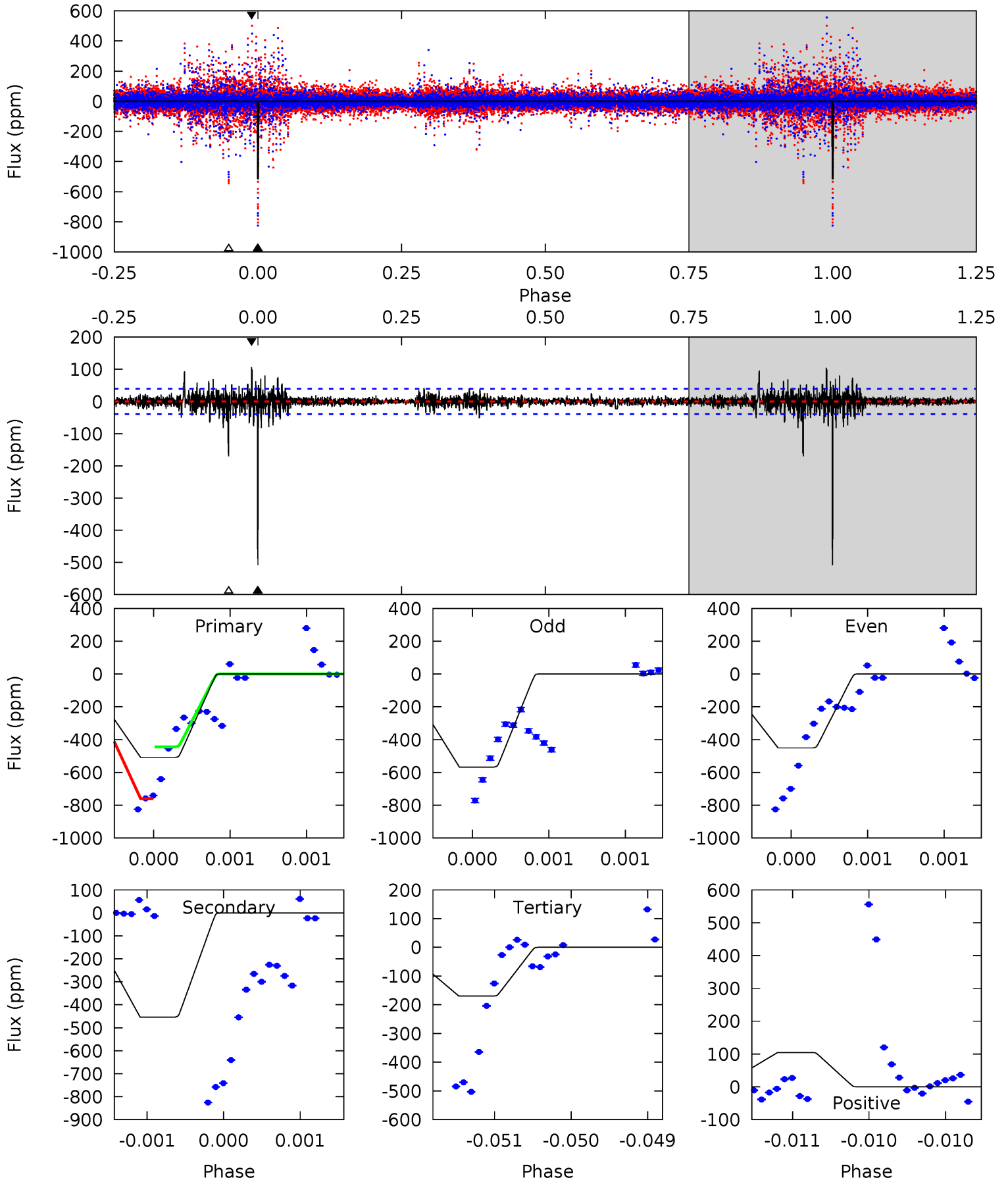
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.1	13.9	13.4	16.0	5.45	3.29	4.05	8.69	6.08	0.55	-2.05	0.71	0.88	0.42	5.27



Alt Model-Shift Uniqueness Test

001294756-07, P = 546.427450 Days, E = 246.635142 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
71.8	64.1	24.0	14.8	5.52	3.40	1.94	47.8	57.1	40.1	49.3	7.80	0.95	0.17	10.4



Stellar Parameters For KIC 001294756

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8615^{+238}_{-374}	$3.784^{+0.405}_{-0.135}$	$-0.220^{+0.400}_{-0.350}$	$3.003^{+0.851}_{-1.276}$	$2.002^{+0.411}_{-0.411}$	$0.104^{+0.376}_{-0.047}$
	+3%/-4%	+11%/-4%	+182%/-159%	+28%/-42%	+21%/-21%	+361%/-45%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 001294756-07 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-332 ± 24	$6.54^{+1.30}_{-1.60}$	697^{+56}_{-82}	7898^{+438}_{-481}	11752^{+7352}_{-3315}
Alt.	-454 ± 7	$7.70^{+1.42}_{-1.91}$	697^{+55}_{-83}	7900^{+359}_{-392}	11639^{+7829}_{-3027}

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

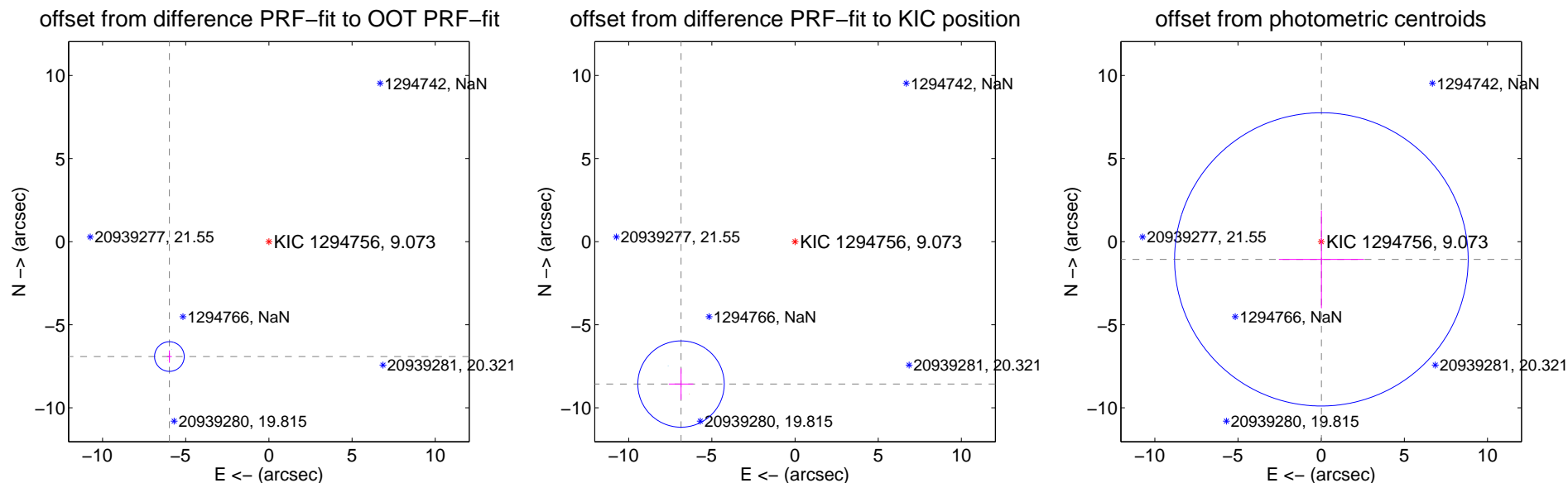
DV Centroid Data

Supplemental centroid analysis for 001294756-07. **Kepler magnitude: 9.07.** Transit SNR 8.15

There are 1 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 2.04 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.145 \pm 0.297	30.78	5.983 \pm 0.146	-6.917 \pm 0.372
PRF-fit source offset from KIC position	10.975 \pm 0.866	12.67	6.855 \pm 0.734	-8.571 \pm 0.941
photometric centroid source offset	1.07 \pm 2.94	0.36	-0.01 \pm 2.56	-1.07 \pm 2.94



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

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



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

Q5 no difference image



Q5 no OOT image



Q6 no difference image



Q6 no OOT image



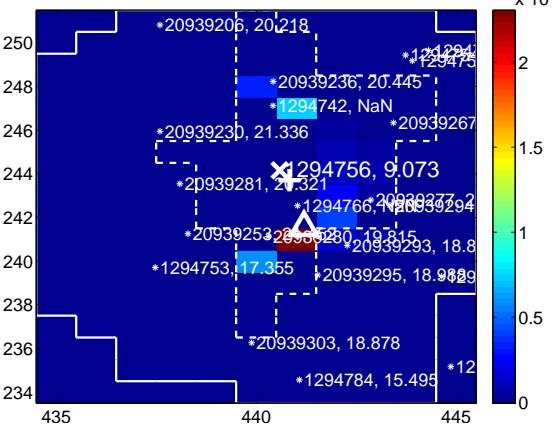
Q7 no difference image



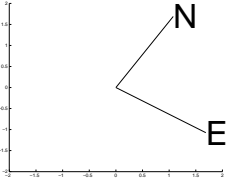
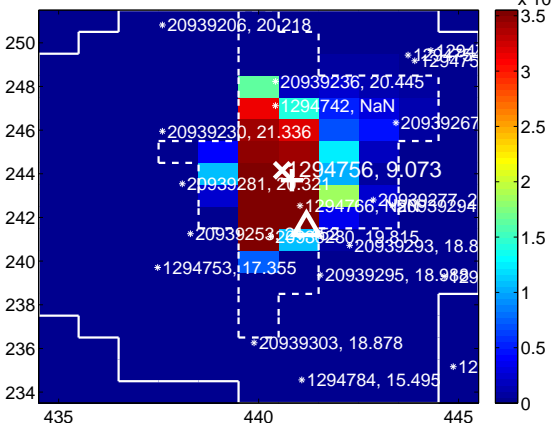
Q7 no OOT image



Q8 difference image



Q8 OOT image



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

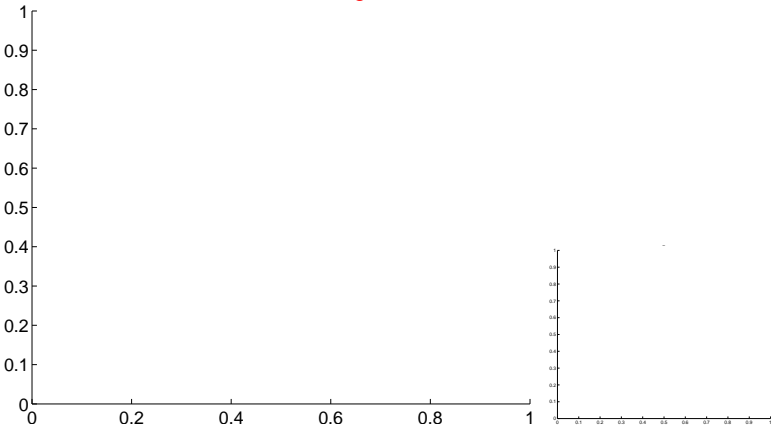


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

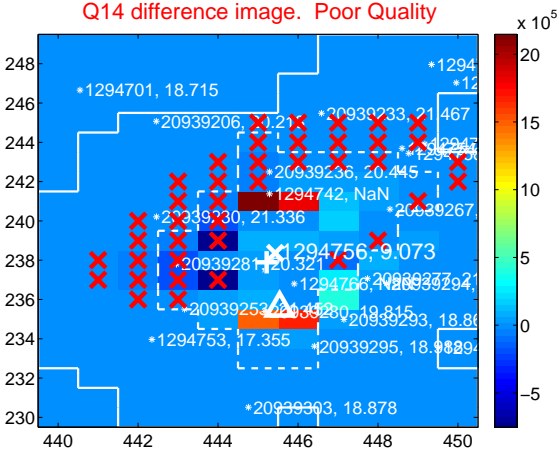
Q13 no difference image



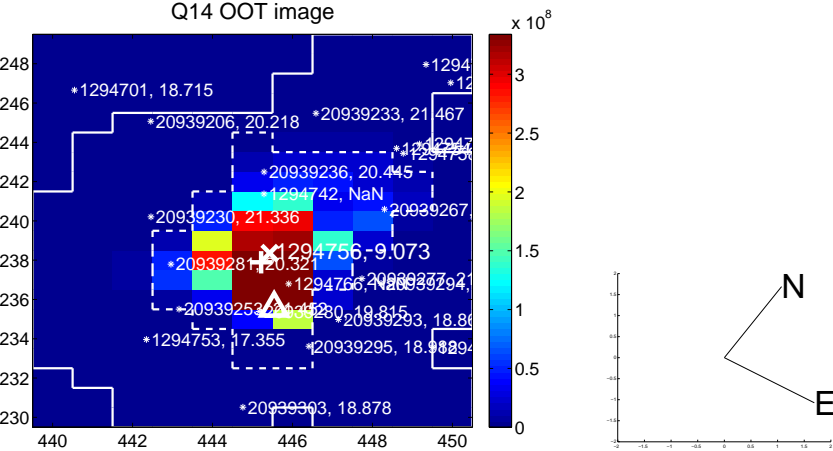
Q13 no OOT image



Q14 difference image. Poor Quality



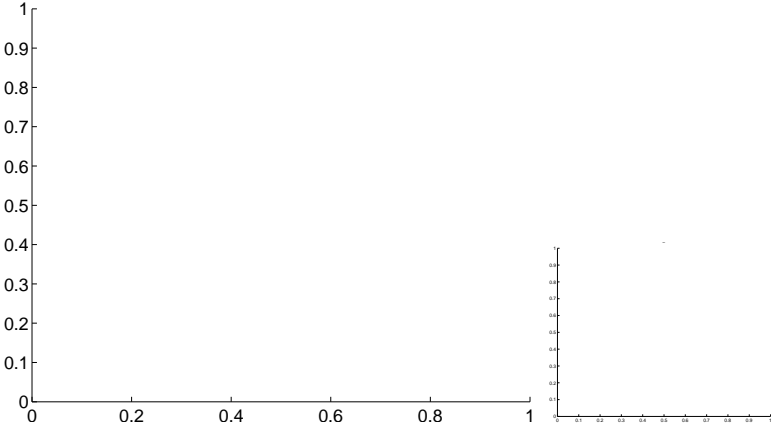
Q14 OOT image



Q15 no difference image



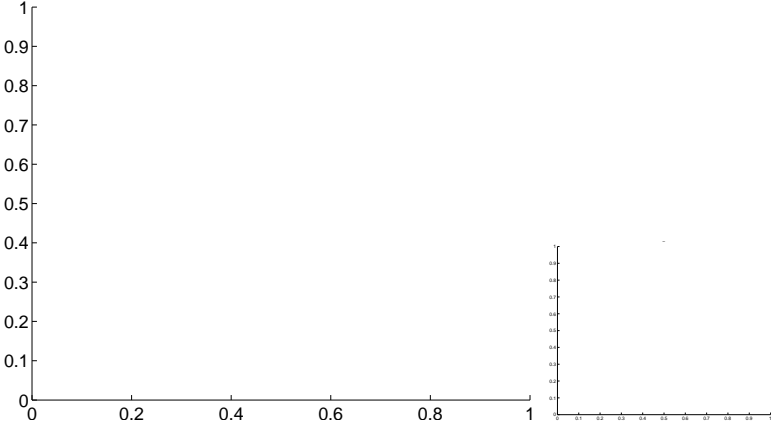
Q15 no OOT image



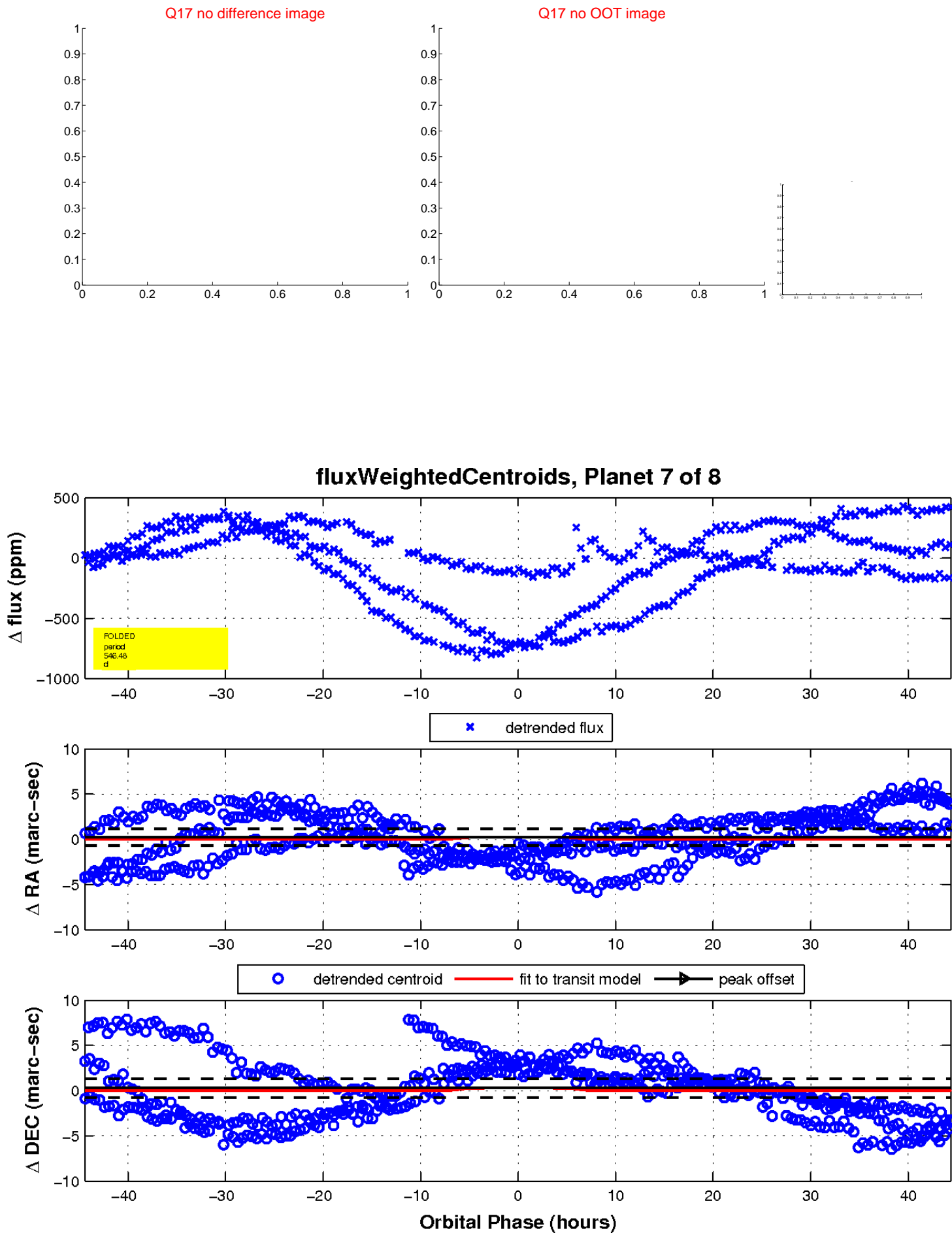
Q16 no difference image



Q16 no OOT image

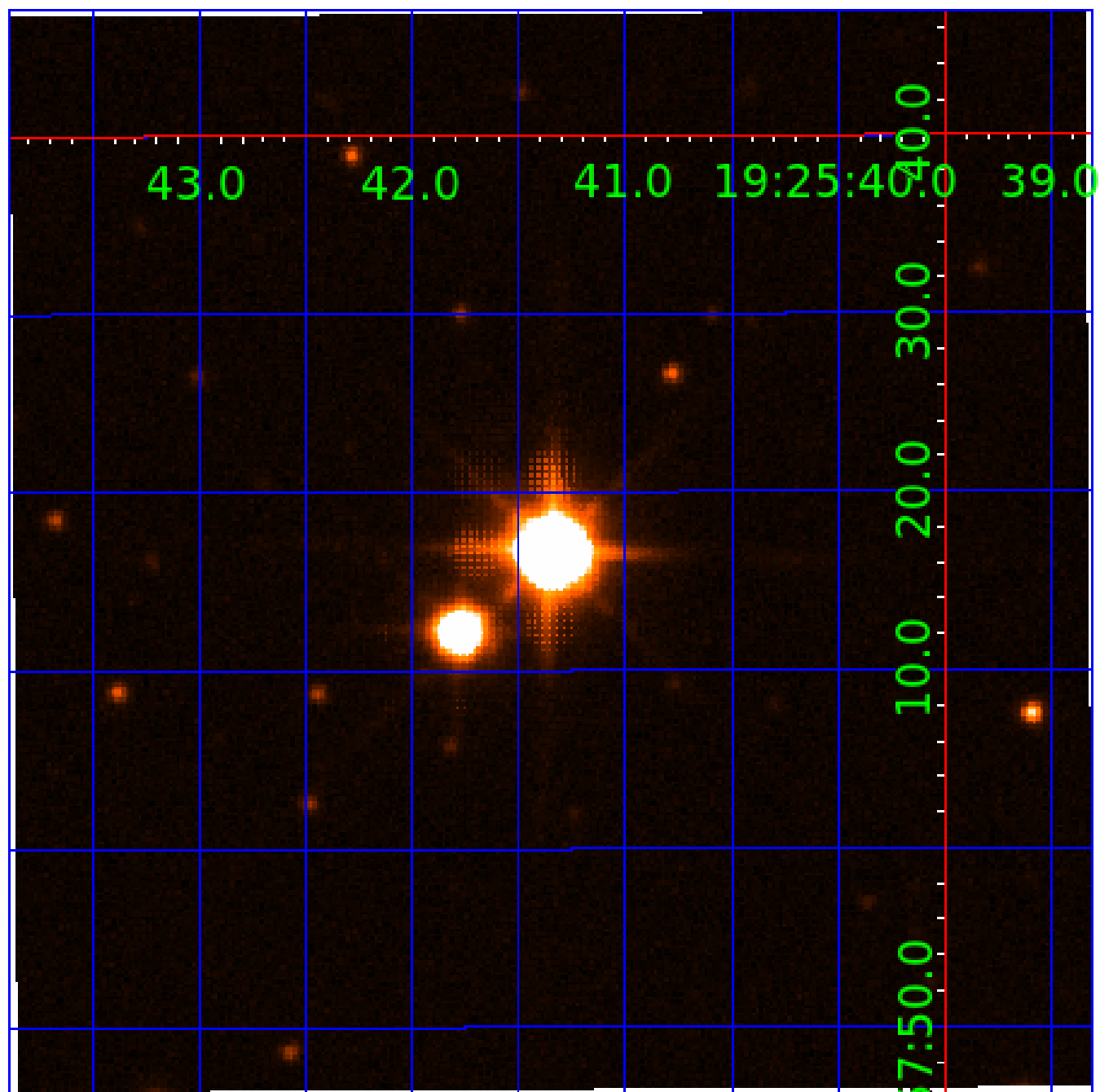


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 001294756

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})
001294756-01	OBS	No	0.795291	131.971363	4.7	2.979	11.8	9.2	3.00	8615	0.75	99292.83
001294756-02	OBS	No	327.663741	259.641741	232.4	11.955	16.0	7.2	3.00	8615	4.89	32.39
001294756-03	OBS	No	527.250441	175.542850	196.8	21.992	10.7	6.0	3.00	8615	4.99	17.18
001294756-04	OBS	No	193.299601	232.194176	162.6	3.125	12.5	8.5	3.00	8615	4.17	65.46
001294756-05	OBS	No	252.752885	302.211336	68.5	23.399	10.8	3.5	3.00	8615	2.84	45.78
001294756-06	OBS	No	400.264020	333.657989	264.4	12.736	10.7	7.0	3.00	8615	5.22	24.80
001294756-07	OBS	No	546.484228	246.698510	353.9	14.817	7.8	8.1	3.00	8615	6.80	16.38
001294756-08	OBS	No	278.183321	251.694824	98.3	10.703	9.5	4.1	3.00	8615	3.46	40.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
001294756-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
001294756-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—INCONSISTENT_TRANS—CENT_SATURATED
001294756-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_SATURATED
001294756-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—CENT_SATURATED
001294756-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
001294756-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_SATURATED
001294756-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—INCONSISTENT_TRANS—CENT_SATURATED
001294756-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_SATURATED

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

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

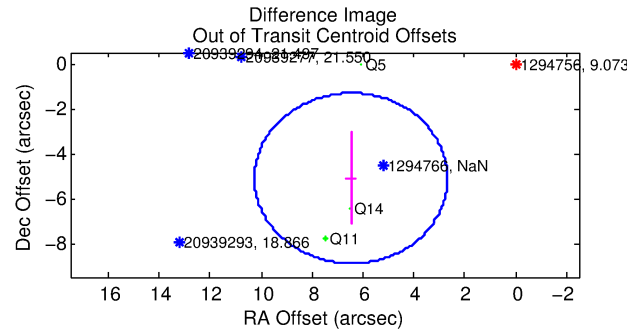
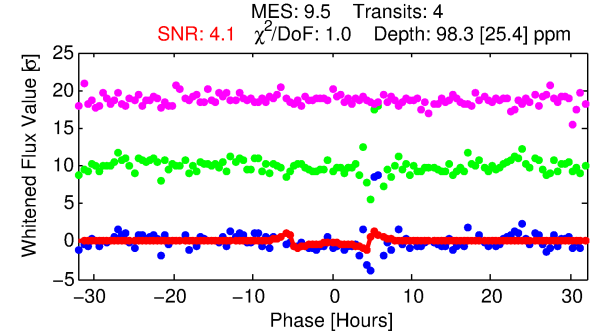
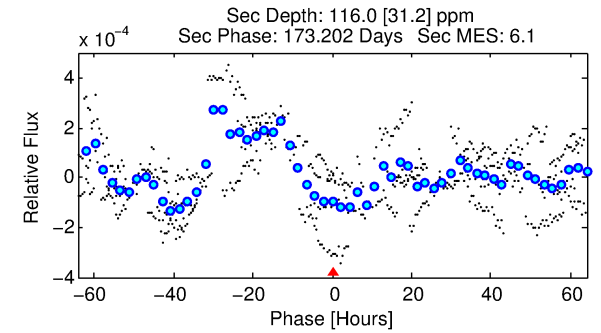
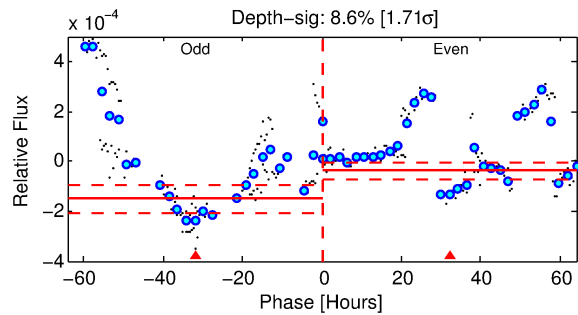
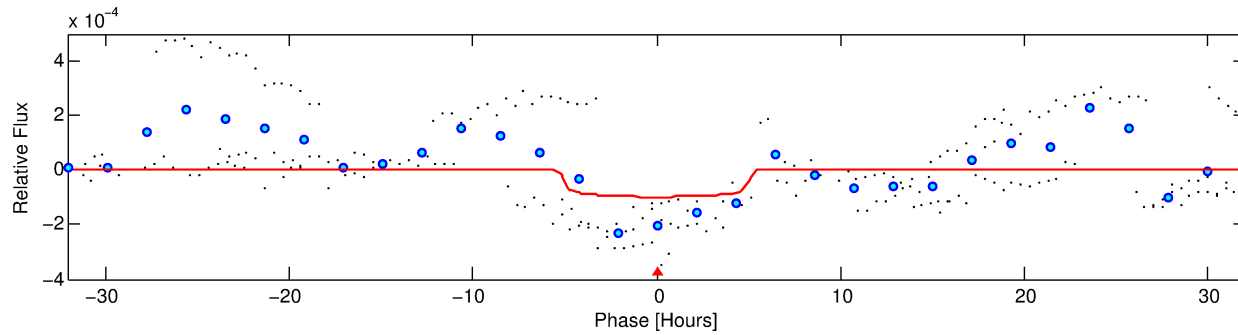
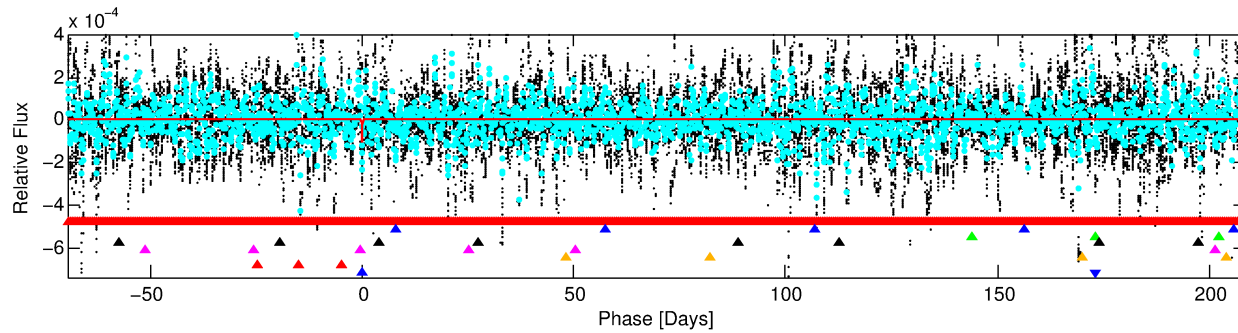
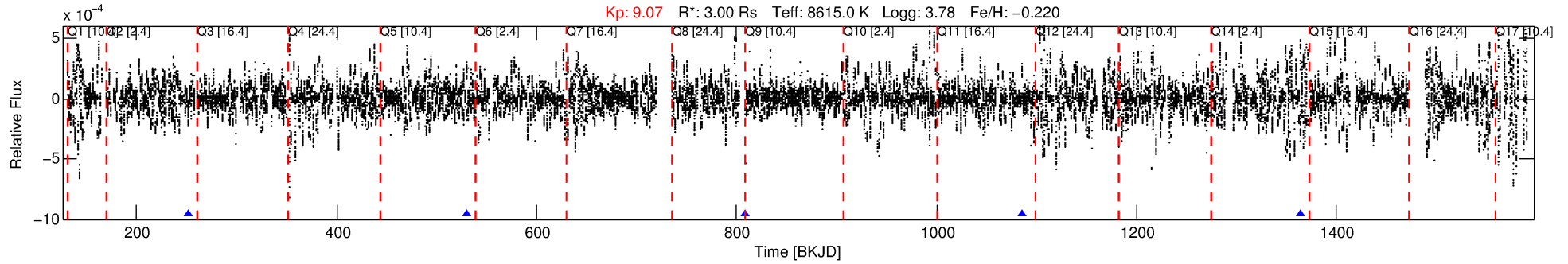
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 001294756-08

No Significant Match Found

DV One-Page Summary

KIC: 1294756 Candidate: 8 of 8 Period: 278.183 d



DV Fit Results:

Period = 278.18332 [0.00490] d
Epoch = 251.6948 [0.0108] BKJD
Rp/R* = 0.0105 [0.0018]
a/R* = 89.78 [50.88]
b = 0.90 [0.12]
Seff = 40.29 [28.40]
Teq = 642 [113] K
Rp = 3.46 [1.59] Re
a = 1.0510 [0.4420] AU
Ag = 5905.45 [4802.90] [1.23 σ]
Teffp = 8707 [1032] K [7.77 σ]

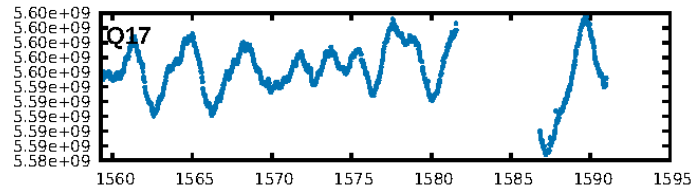
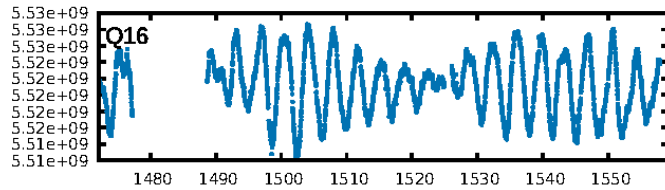
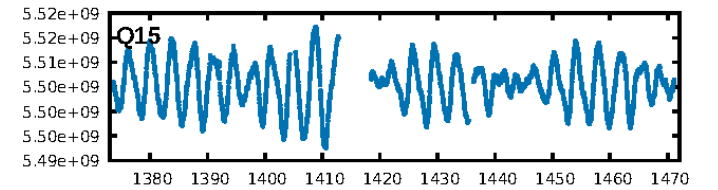
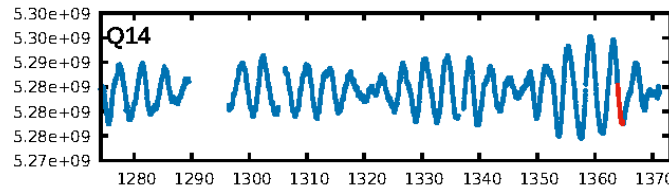
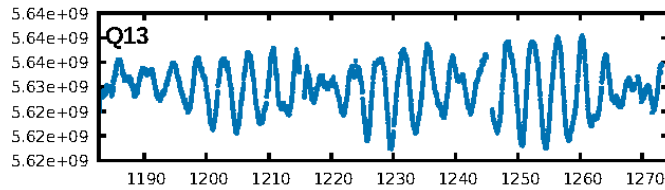
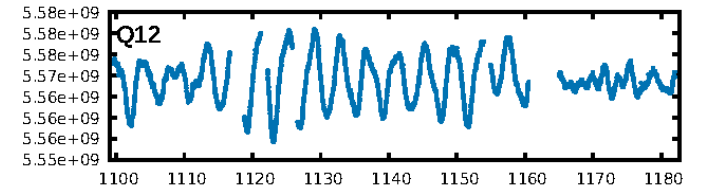
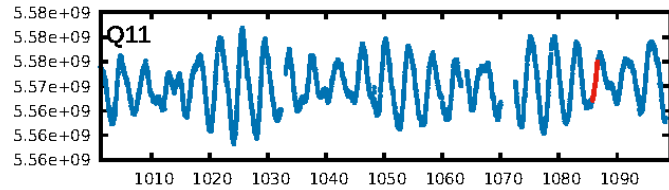
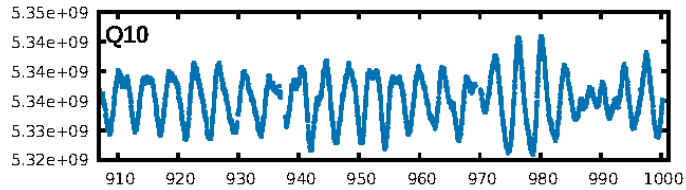
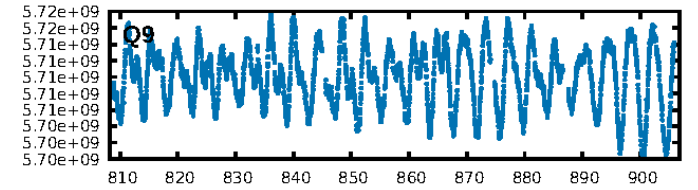
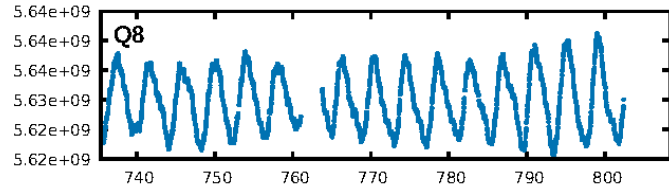
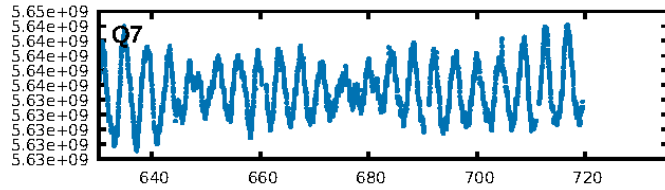
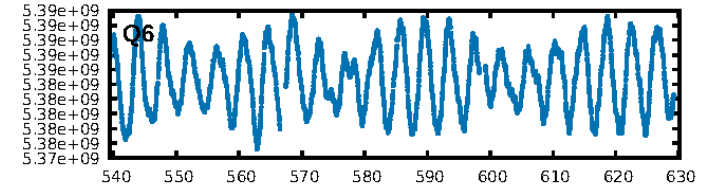
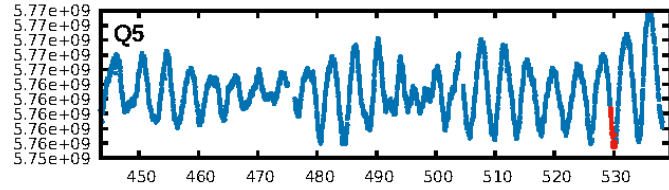
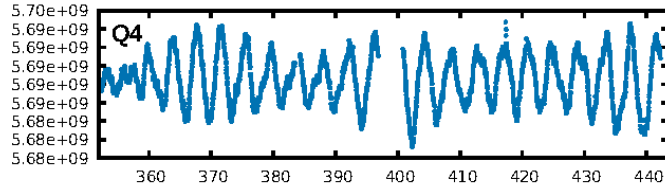
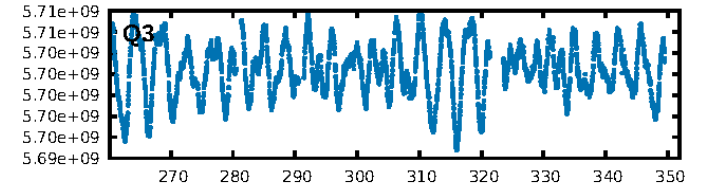
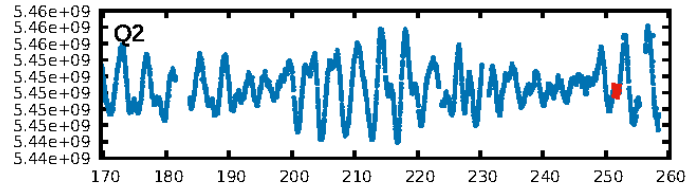
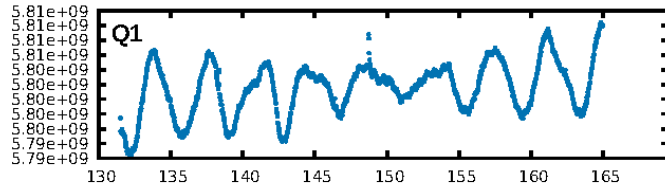
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [23.72 σ]
LongPeriod-sig: 100.0% [74.01 σ]
ModelChiSquare2-sig: 0.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 7.78e-11
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: N/A
Centroid-sig: 77.2%
Centroid-so: 2.901 arcsec [0.42 σ]
OotOffset-rm: 8.239 arcsec [6.52 σ]
KicOffset-rm: 9.688 arcsec [8.13 σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 0.00 [0/4]

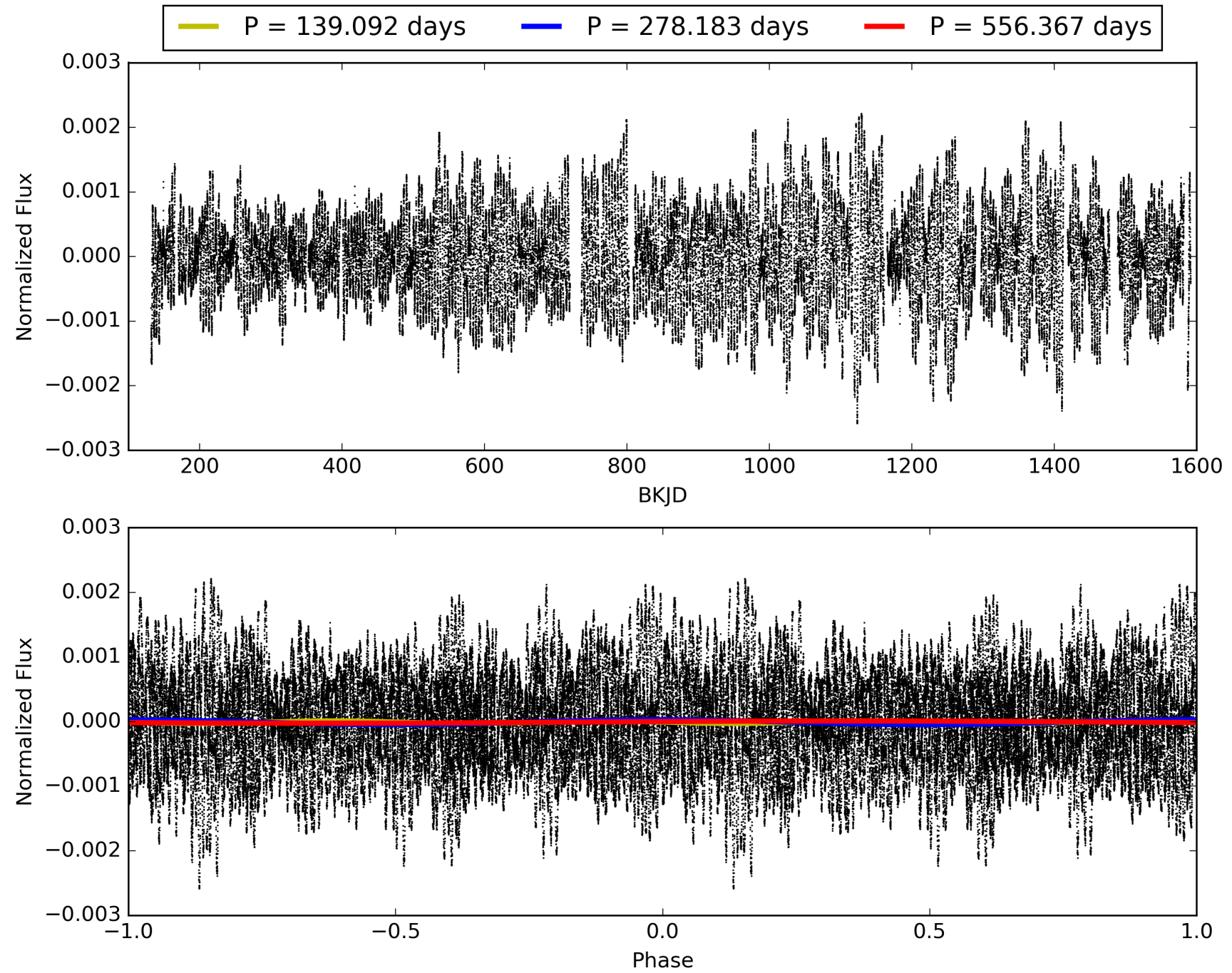
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 00:08:29 Z

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

TCE 001294756-08, PDC Light Curves

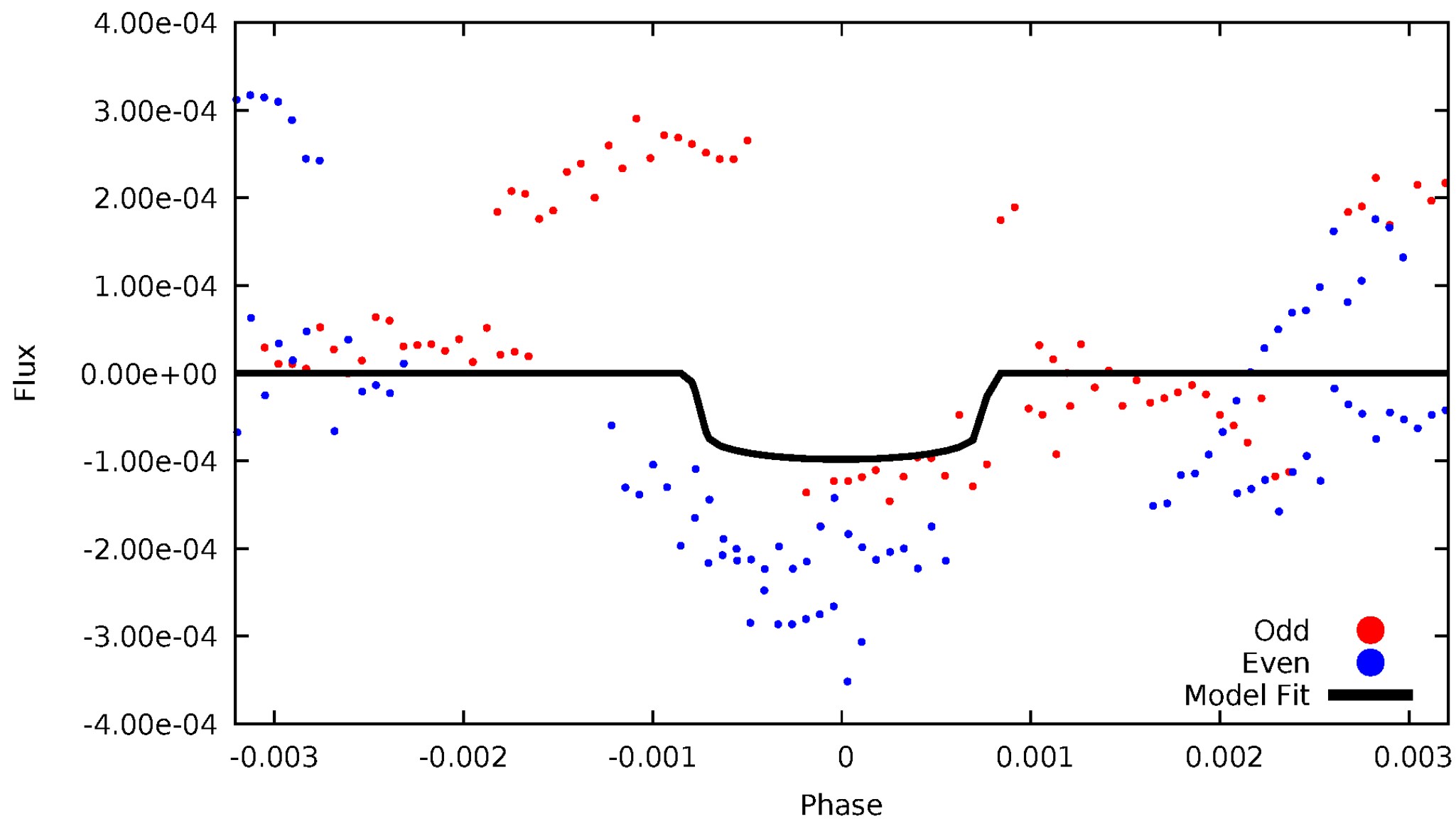


TCE 001294756-08



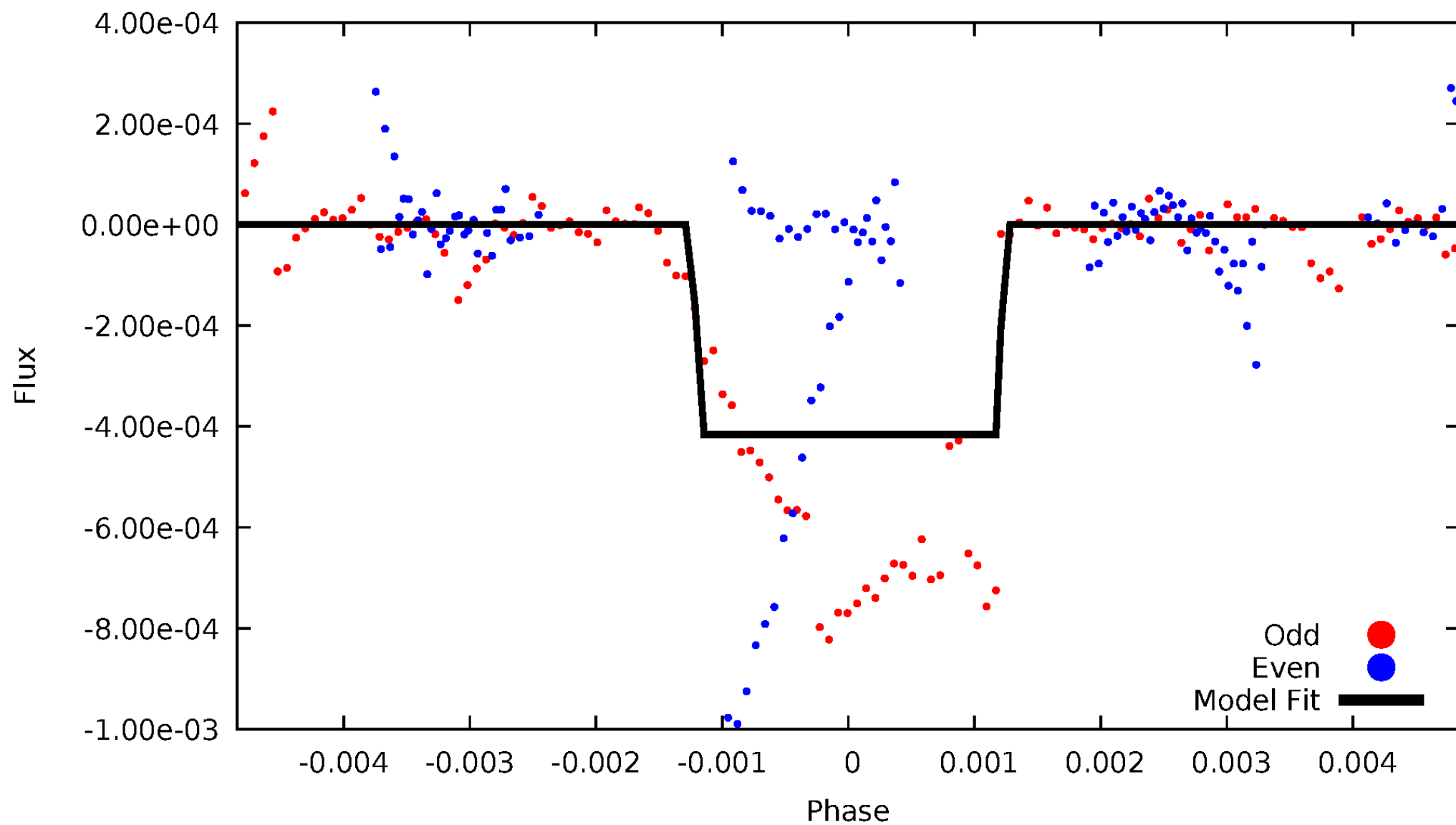
DV Odd/Even

TCE 001294756-08



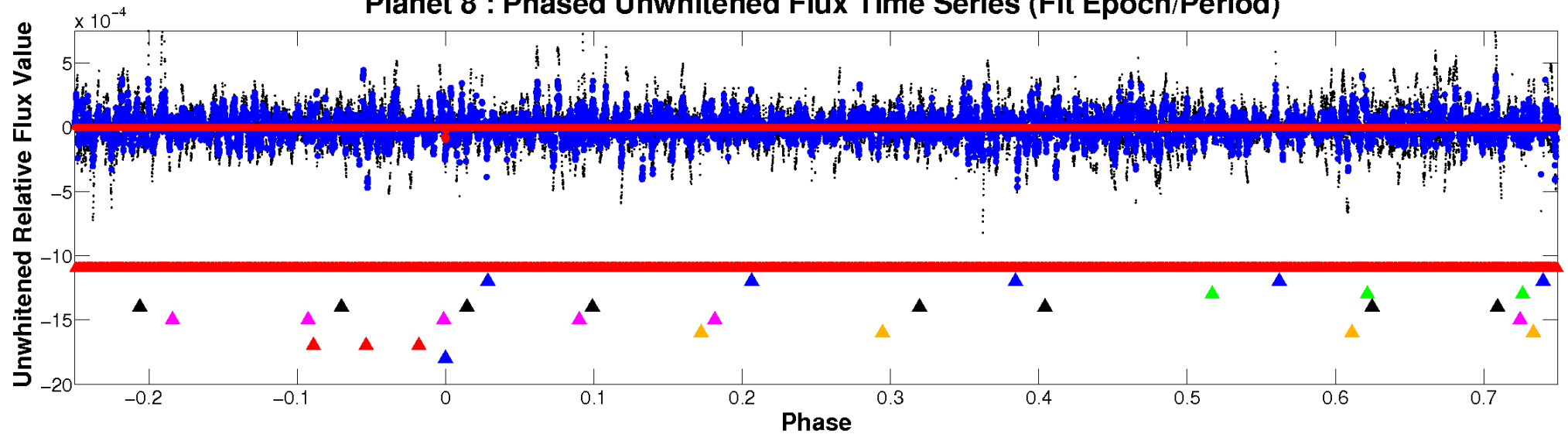
ALT Odd/Even

TCE 001294756-08

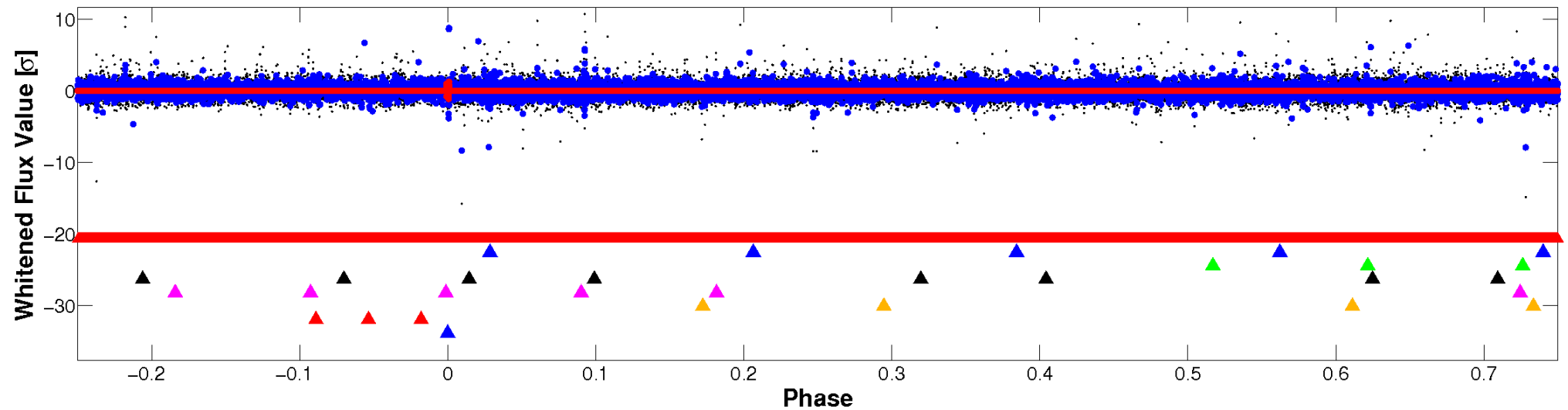


Non-Whitened Vs. Whitened Light Curve

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

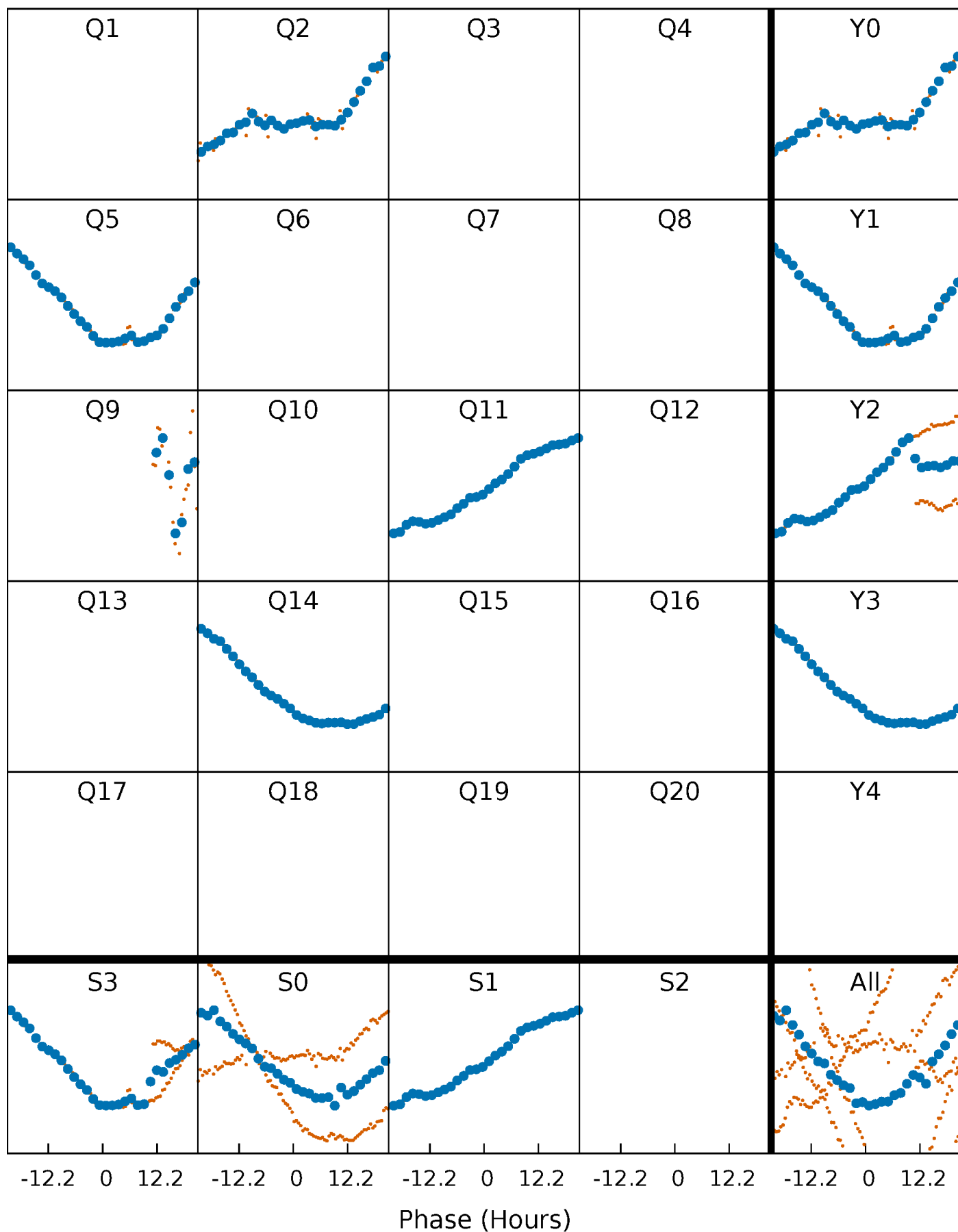


Planet 8 : Phased Whitened Flux Time Series (Fit Epoch/Period)



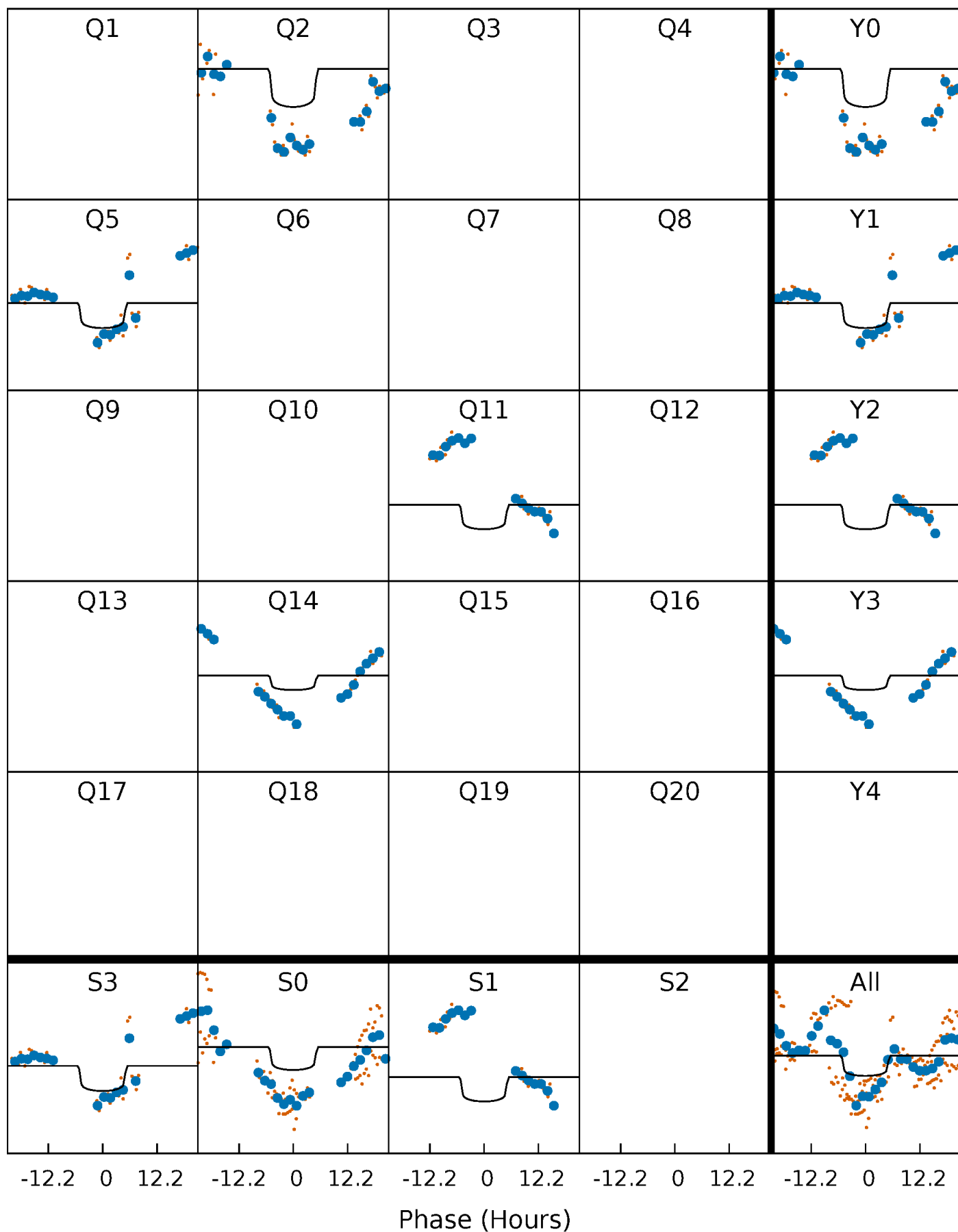
PDC Quarter-Phased Transit Curves

TCE 001294756-08 P=278.183321 Days $T_0=251.694824$ (BKJD)



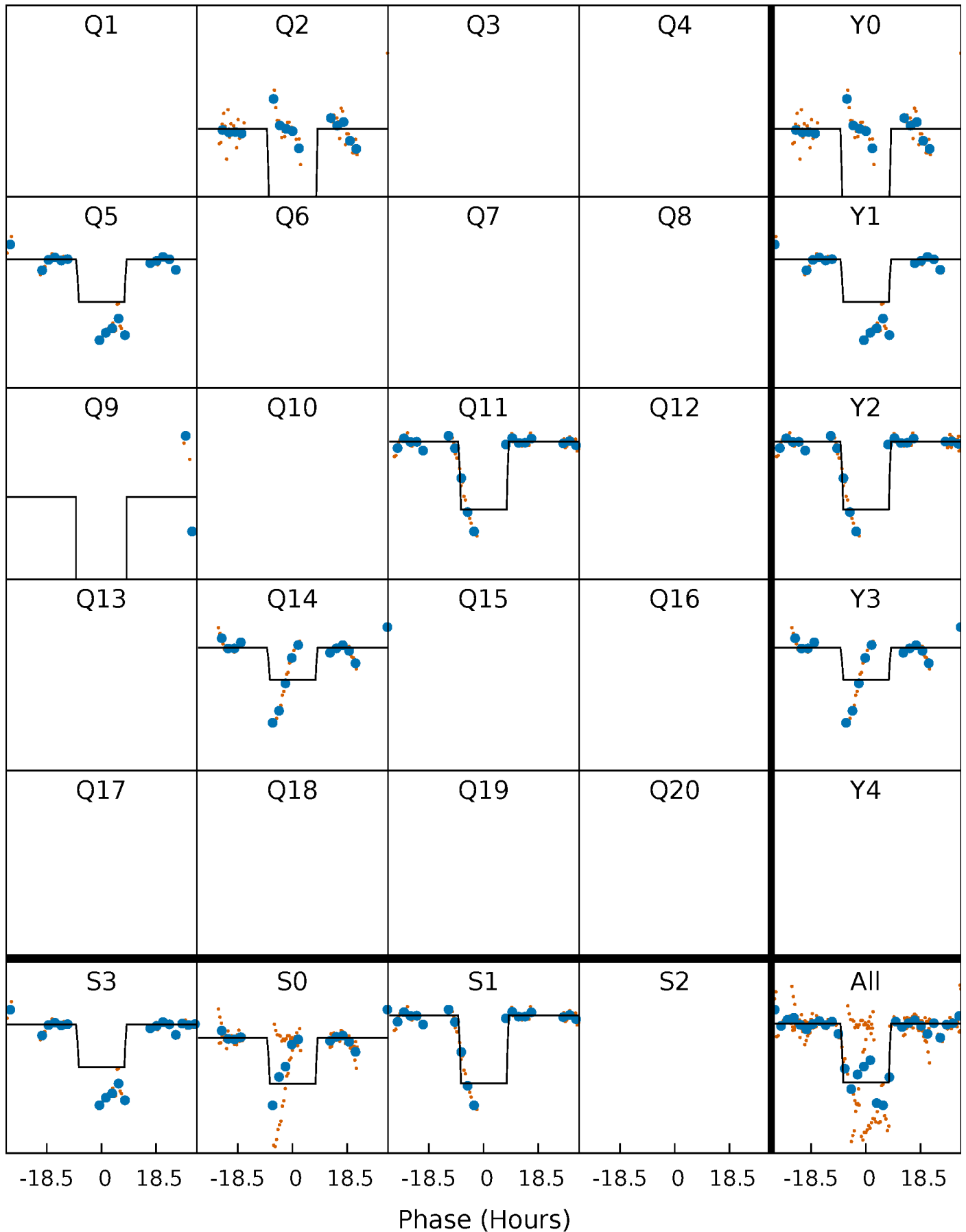
DV Quarter-Phased Transit Curves

TCE 001294756-08 $P=278.183321$ Days $T_0=251.694824$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

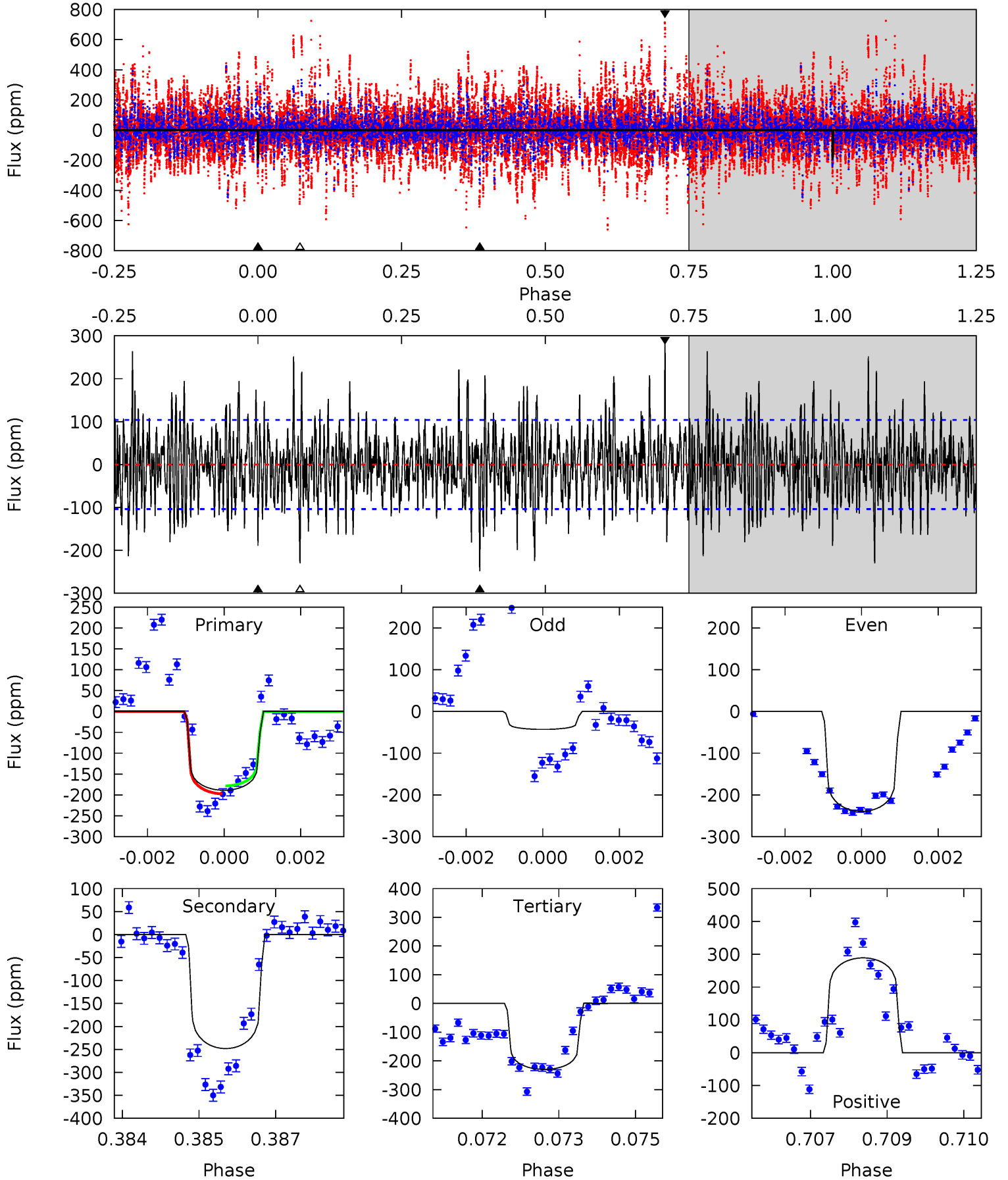
TCE 001294756-08 $P=278.155241$ Days $T_0=251.733748$ (BKJD)



DV Model-Shift Uniqueness Test

001294756-08, P = 278.183321 Days, E = 251.694824 Days

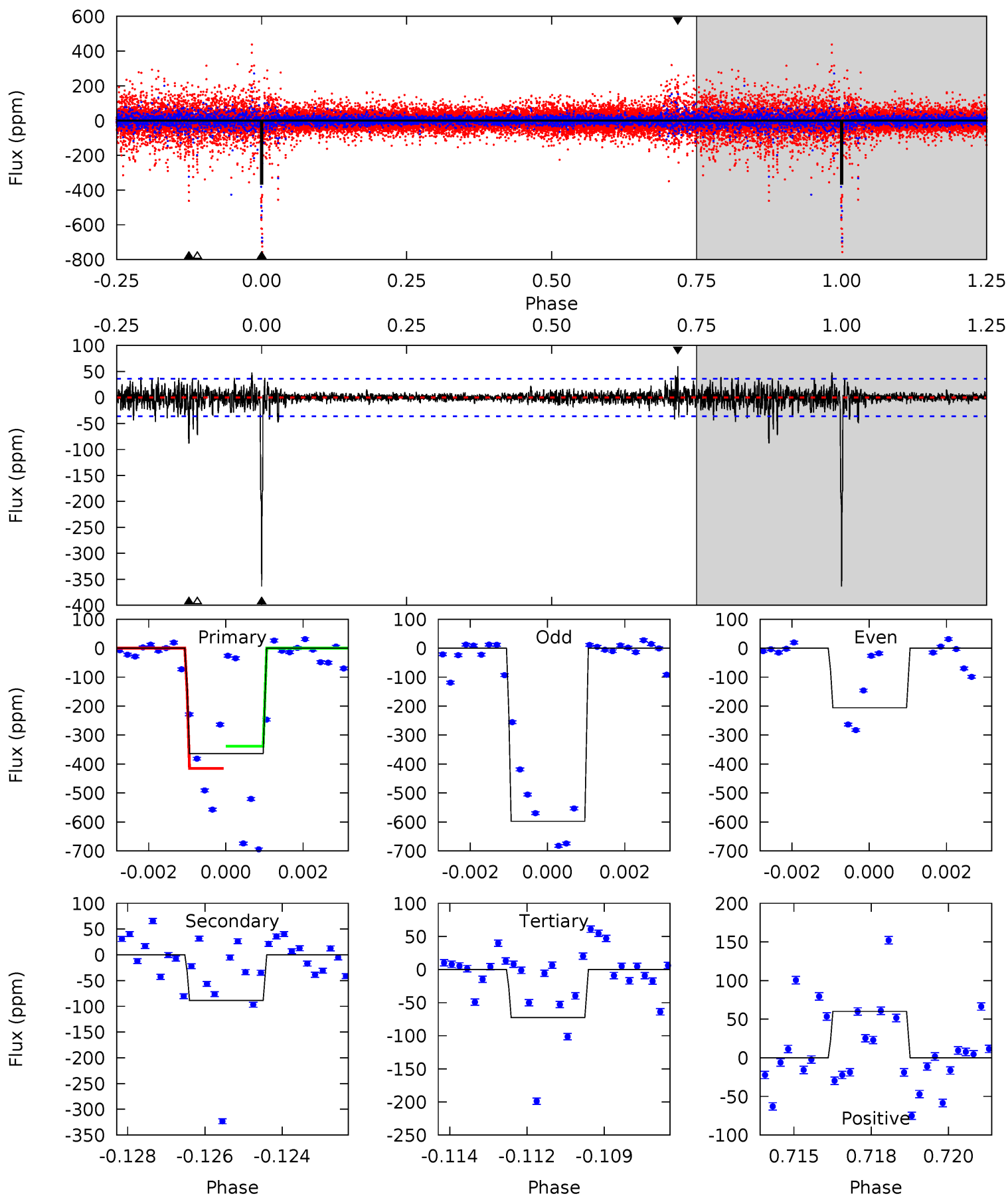
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.75	12.8	11.9	14.9	5.36	3.15	3.53	-2.11	-5.17	0.95	-2.10	4.77	0.47	0.54	0.49



Alt Model-Shift Uniqueness Test

001294756-08, P = 278.155241 Days, E = 251.733748 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
53.2	13.0	10.6	8.79	5.29	3.03	1.39	42.6	44.4	2.35	4.18	29.8	0.90	0.14	0



Stellar Parameters For KIC 001294756

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	ρ_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8615^{+238}_{-374}	$3.784^{+0.405}_{-0.135}$	$-0.220^{+0.400}_{-0.350}$	$3.003^{+0.851}_{-1.276}$	$2.002^{+0.411}_{-0.411}$	$0.104^{+0.376}_{-0.047}$
	+3%/-4%	+11%/-4%	+182%/-159%	+28%/-42%	+21%/-21%	+361%/-45%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 001294756-08 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-248 ± 19	$3.30^{+0.89}_{-0.91}$	873^{+72}_{-99}	11405^{+2054}_{-1406}	14102^{+12387}_{-5145}
Alt.	-89 ± 7	$6.45^{+1.36}_{-1.54}$	873^{+72}_{-97}	5599^{+314}_{-286}	1304^{+958}_{-380}

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

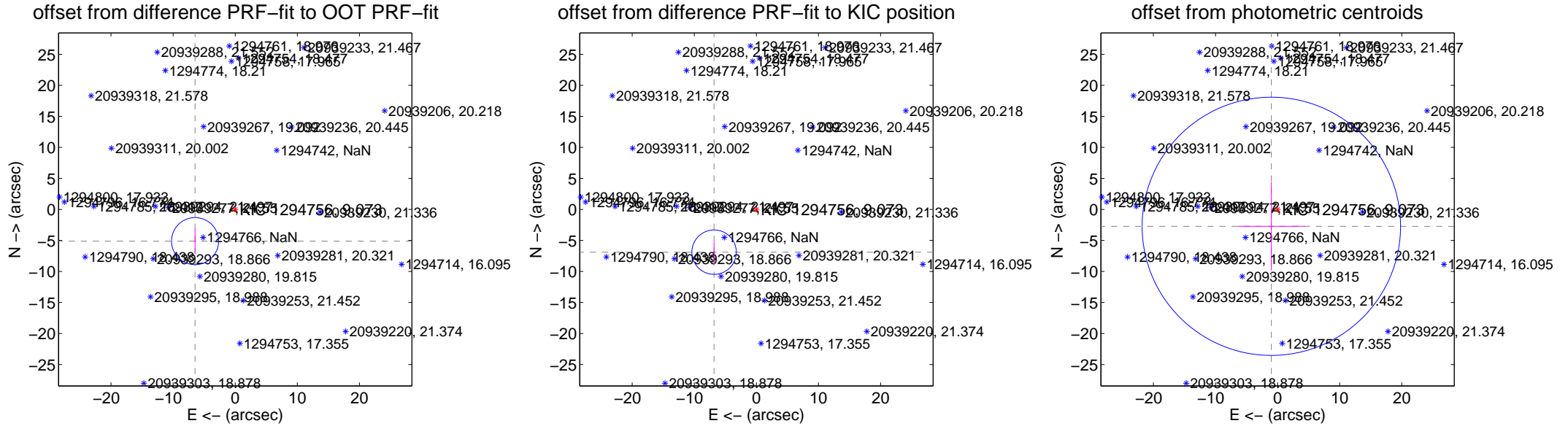
DV Centroid Data

Supplemental centroid analysis for 001294756-08. **Kepler magnitude: 9.07.** Transit SNR 4.13

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 1.57 arcsec

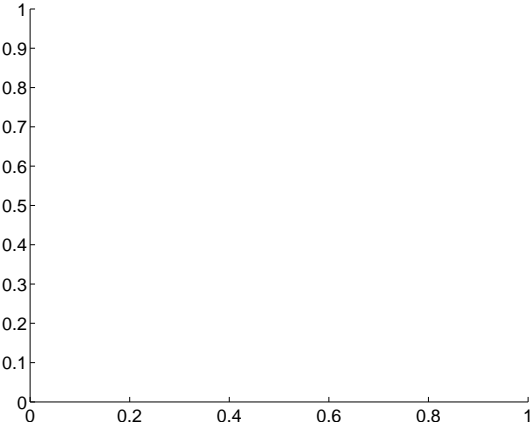
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.239 \pm 1.264	6.52	6.465 \pm 0.171	-5.107 \pm 2.028
PRF-fit source offset from KIC position	9.688 \pm 1.192	8.13	6.815 \pm 0.176	-6.886 \pm 1.668
photometric centroid source offset	2.90 \pm 6.94	0.42	1.01 \pm 5.41	-2.72 \pm 7.12



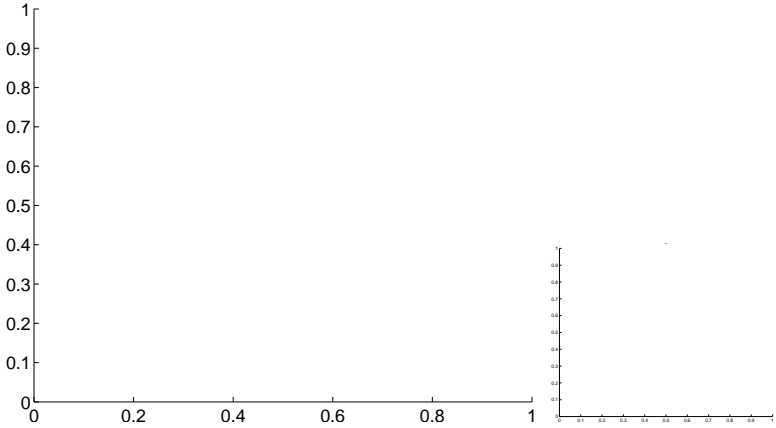
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

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

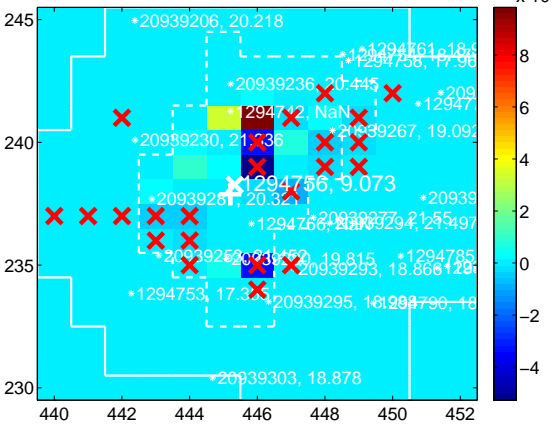
Q1 no difference image



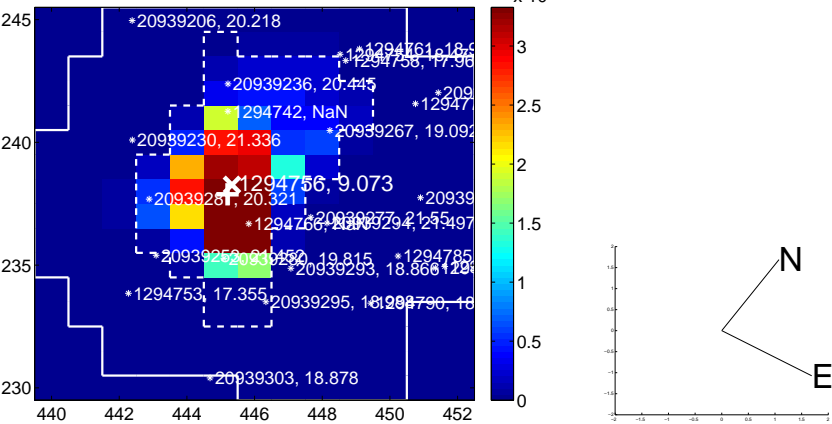
Q1 no OOT image



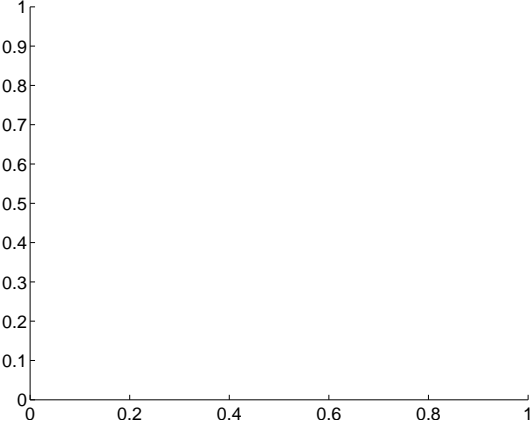
Q2 difference image. Poor Quality



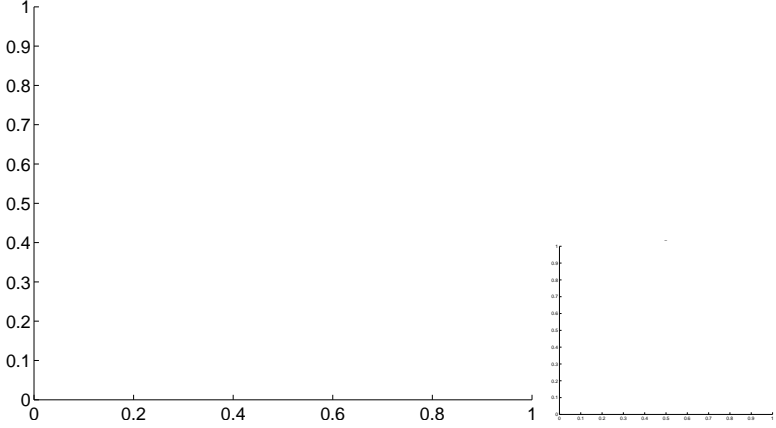
Q2 OOT image



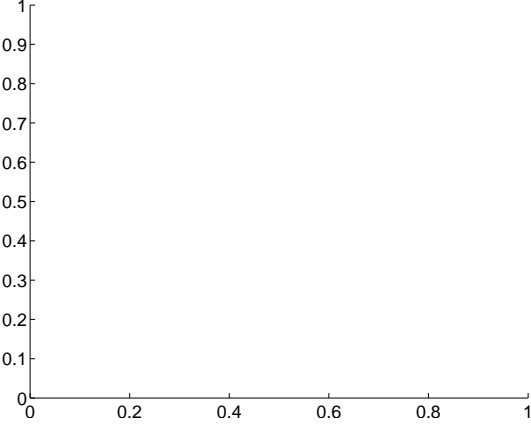
Q3 no difference image



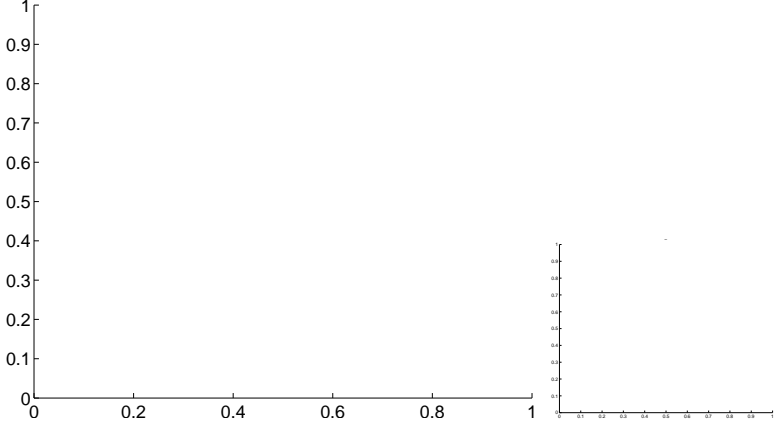
Q3 no OOT image



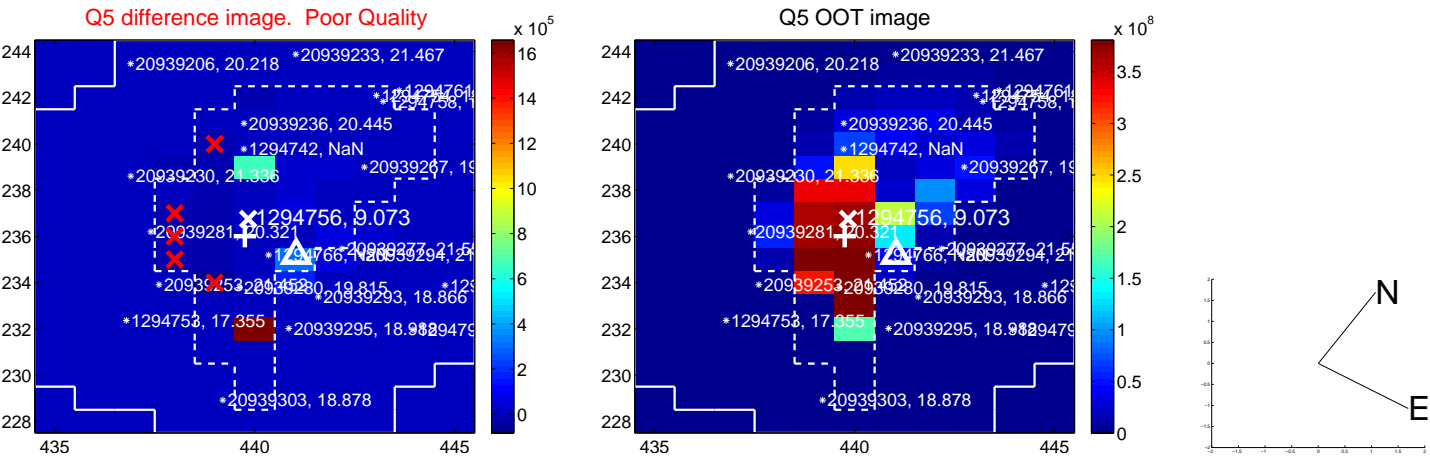
Q4 no difference image



Q4 no OOT image



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



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

Q9 no difference image



Q9 no OOT image



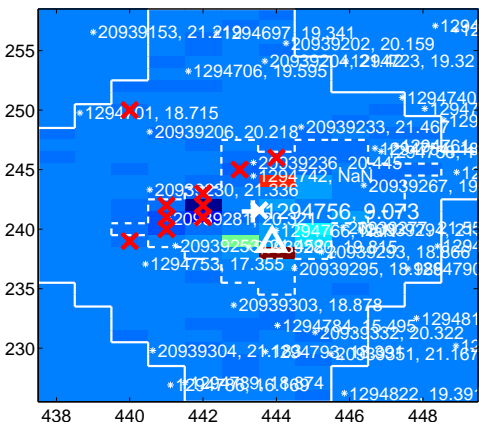
Q10 no difference image



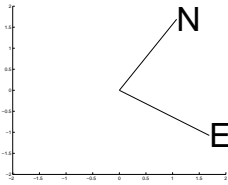
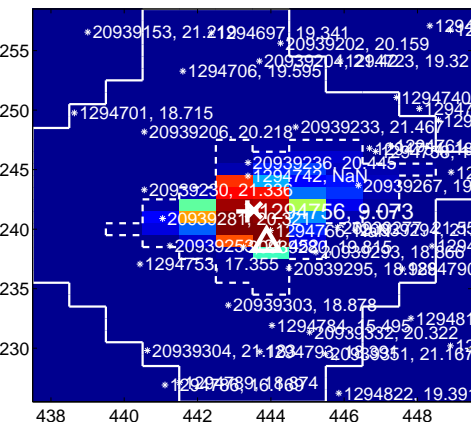
Q10 no OOT image



Q11 difference image. Poor Quality



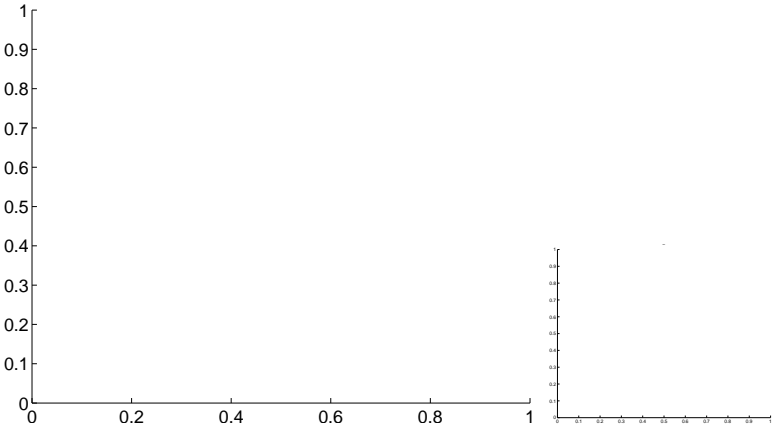
Q11 OOT image



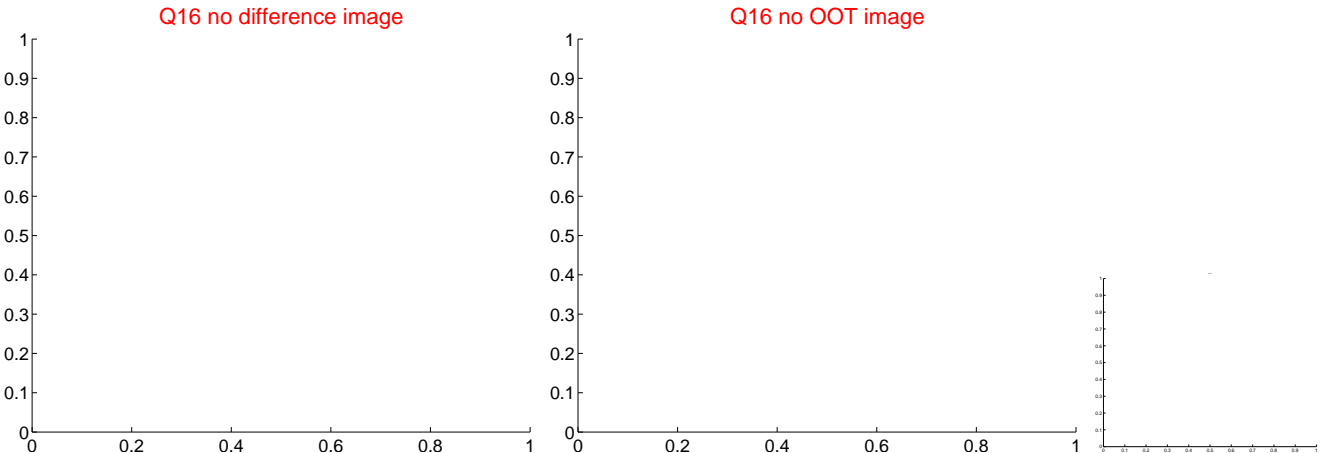
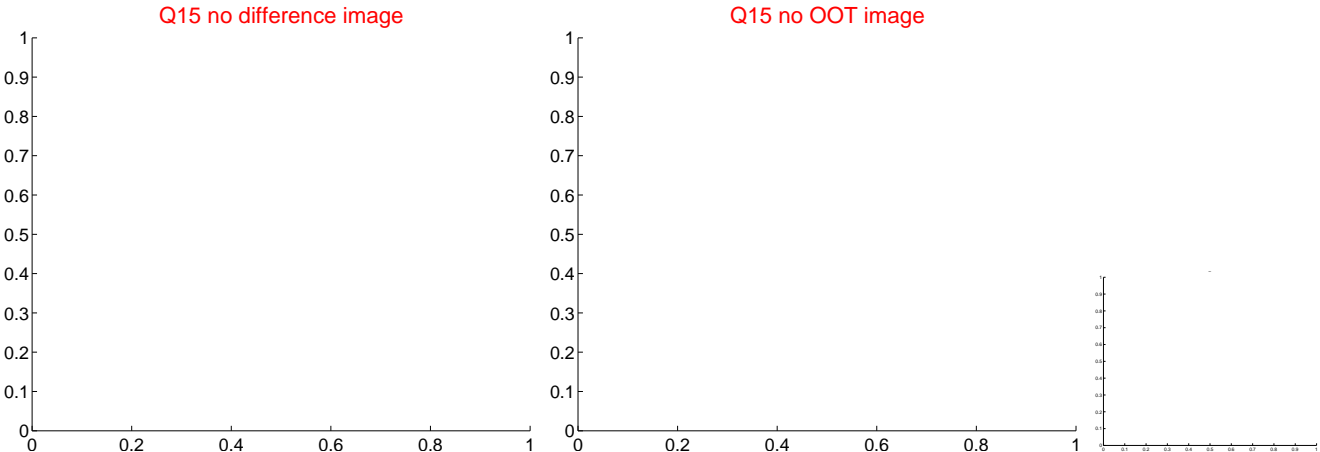
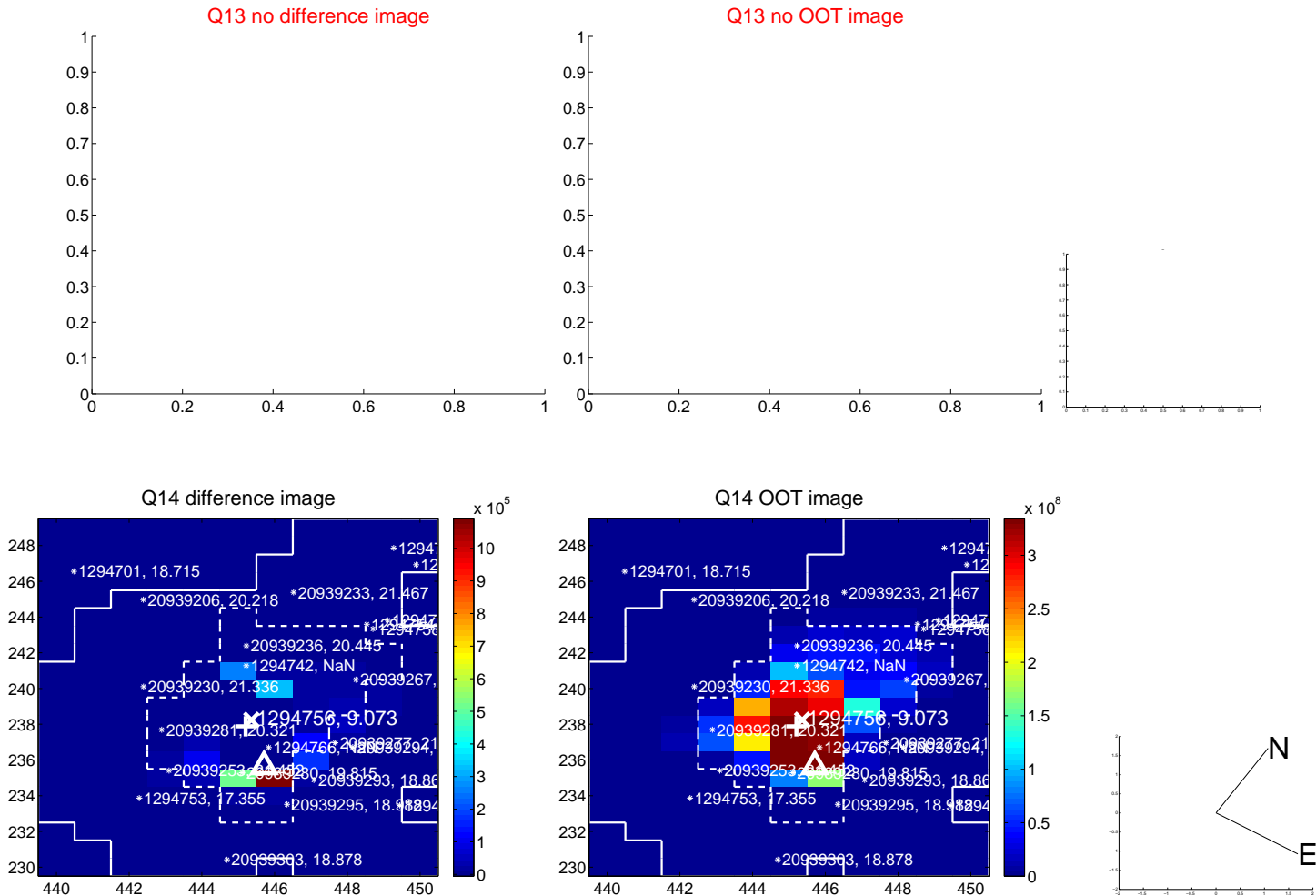
Q12 no difference image



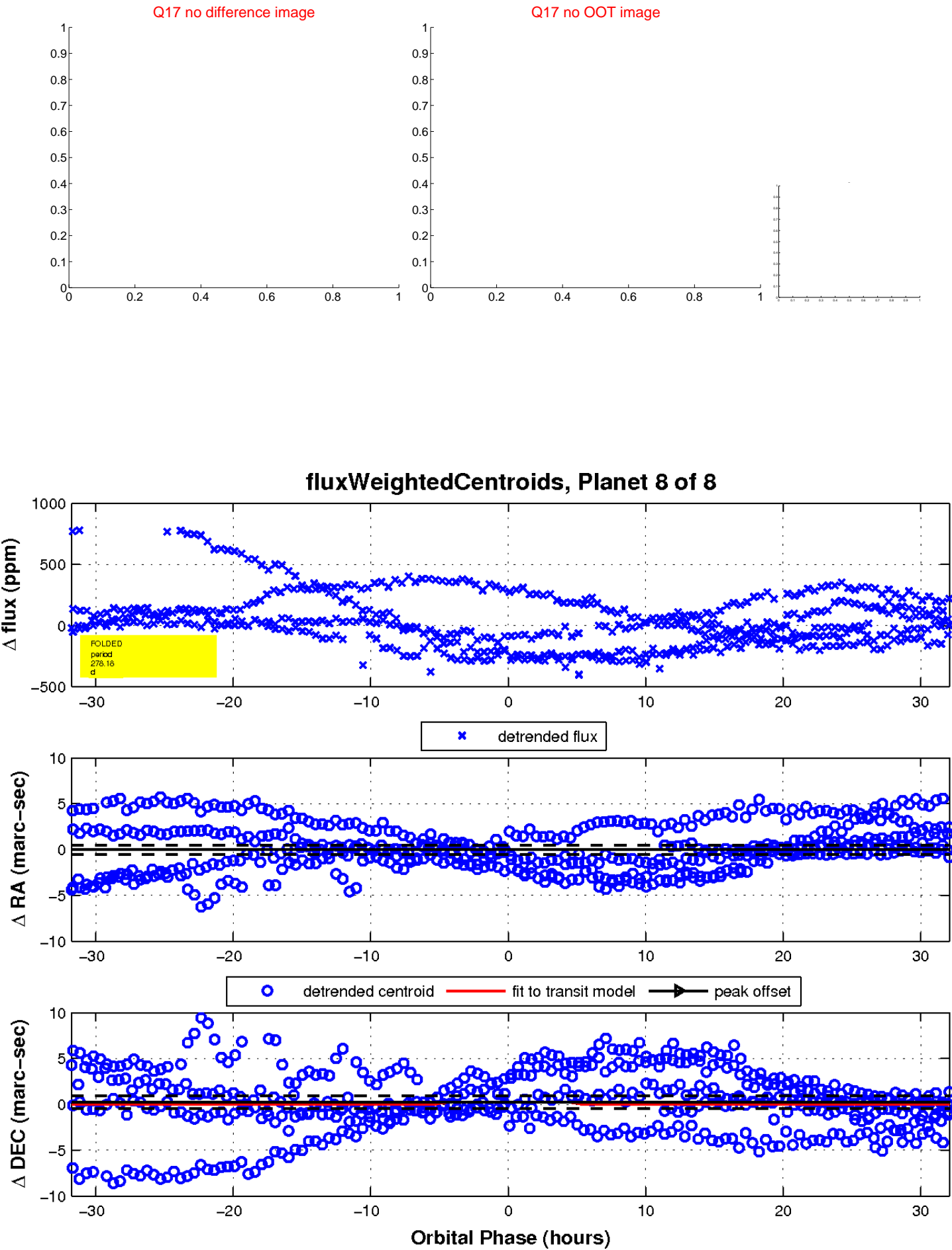
Q12 no OOT image



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



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



UKIRT Image

Declination

