

KIC 007281454

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})
007281454-01	OBS	3055.01	0.566695	131.938748	8.1	4.252	10.4	3.0	0.55	5000	0.16	1380.46
007281454-02	OBS	No	10.739148	137.537077	210.7	1.193	11.1	7.7	0.55	5000	0.85	27.32
007281454-03	OBS	No	5.789677	133.205705	680.8	0.712	15.0	17.3	0.55	5000	1.46	62.27
007281454-04	OBS	No	12.853532	142.647659	818.3	0.545	12.5	20.2	0.55	5000	1.65	21.50
007281454-05	OBS	No	5.276778	131.556097	412.6	0.736	14.5	15.6	0.55	5000	1.17	70.47
007281454-06	OBS	No	4.369578	134.114310	246.7	0.943	12.5	12.0	0.55	5000	0.87	90.62
007281454-07	OBS	No	8.141625	136.843060	217.1	1.522	13.5	8.9	0.55	5000	0.81	39.52
007281454-08	OBS	No	3.770951	134.193884	109.6	0.575	8.4	4.0	0.55	5000	0.61	110.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007281454-01	OBS	FP	0.00	1	0	0	1	LPP_DV—EPHEM_MATCH
007281454-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
007281454-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
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007281454-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007281454-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_MEAS
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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 007281454-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
007281454-01	7281454	RR-Lyr-pri	7198959	1:1	684.5	23	170	7.86	14.65	77912.00	Direct-PRF	0	4.69	8.75

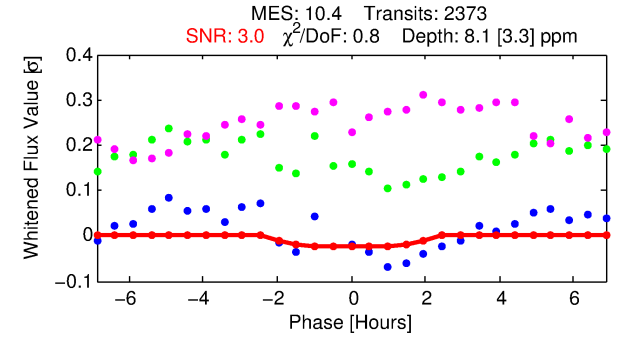
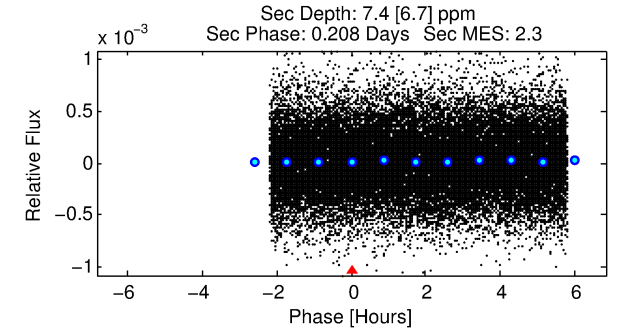
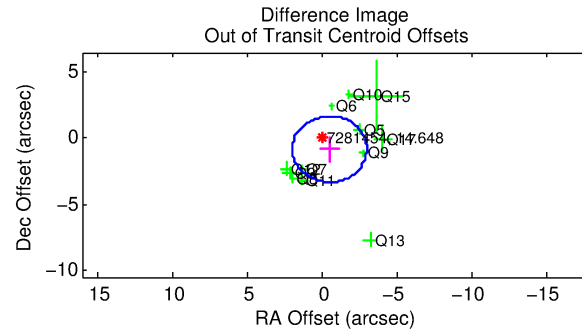
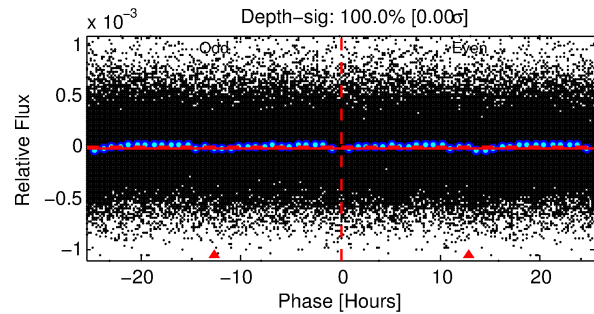
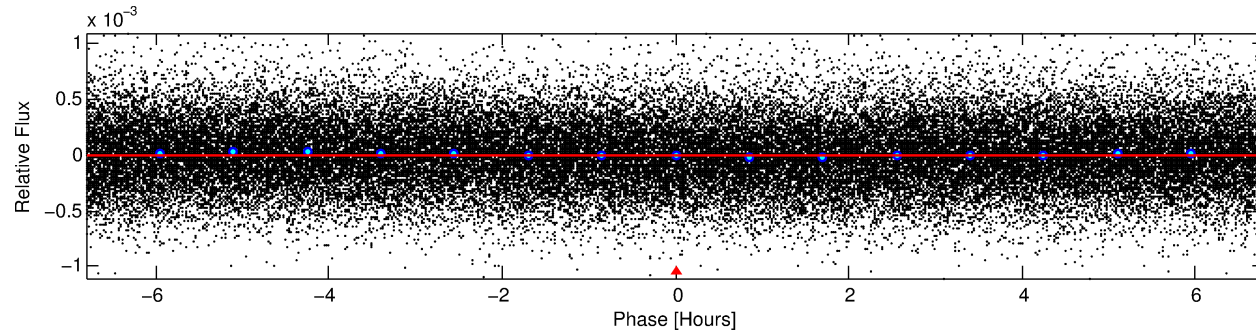
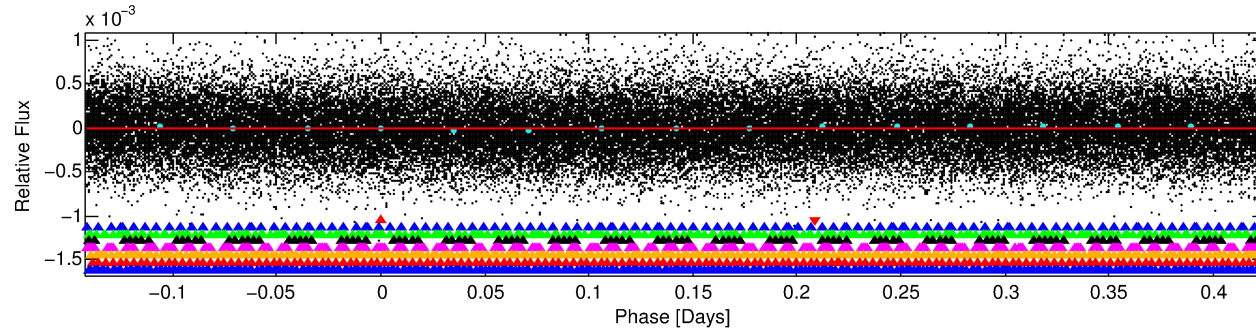
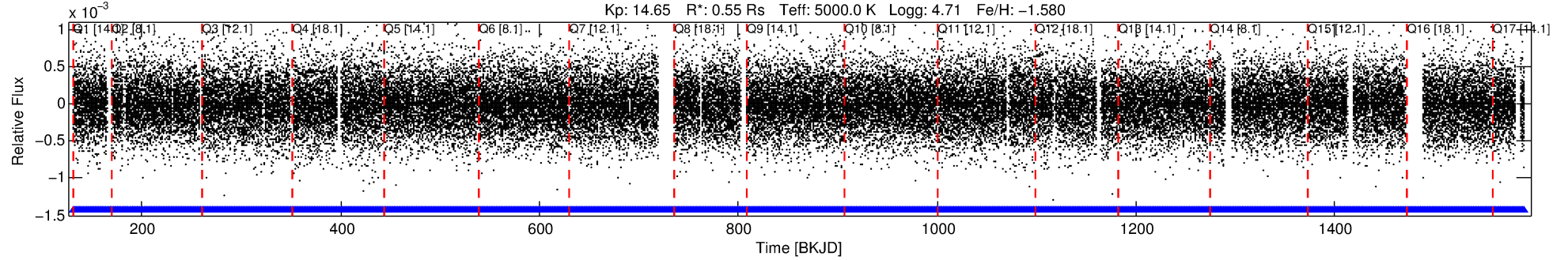
Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 7281454 Candidate: 1 of 8 Period: 0.567 d

KOI: K03055 Corr: No Ephemeris Match

Kp: 14.65 R*: 0.55 Rs Teff: 5000.0 K Logg: 4.71 Fe/H: -1.580



DV Fit Results:

Period = 0.56669 [0.00003] d
Epoch = 131.9387 [0.0153] BKJD
Rp/R* = 0.0026 [0.0133]
a/R* = 1.19 [8.44]
b = 0.30 [74.29]
Seff = 1380.46 [201.87]
Teq = 1554 [57] K
Rp = 0.16 [0.80] Re
a = 0.0111 [0.0006] AU
Ag = 20.23 [206.41] [0.09σ]
Teffp = 5097 [12999] K [0.27σ]

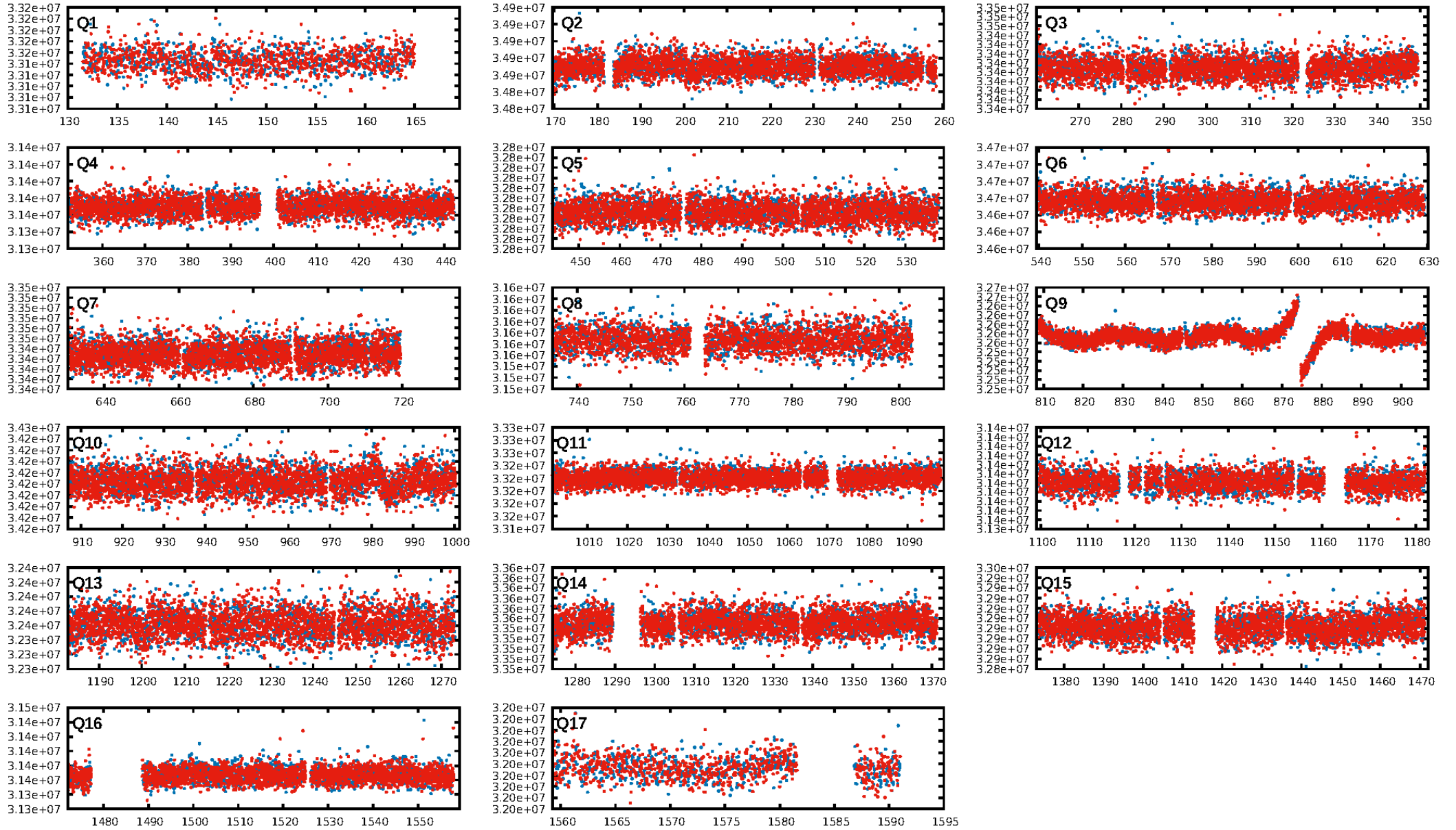
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [17.92σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.31e-07
RollingBand-fgt: 1.00 [2267/2267]
GhostDiagnostic-chr: 0.4118
Centroid-sig: 3.6%
Centroid-so: 6.866 arcsec [1.82σ]
OotOffset-rm: 0.983 arcsec [1.18σ]
KicOffset-rm: 1.109 arcsec [1.33σ]
OotOffset-st: 2/4/2/4 [12]
KicOffset-st: 2/4/2/4 [12]
DiffImageQuality-fgm: 0.67 [8/12]
DiffImageOverlap-fno: 1.00 [17/17]

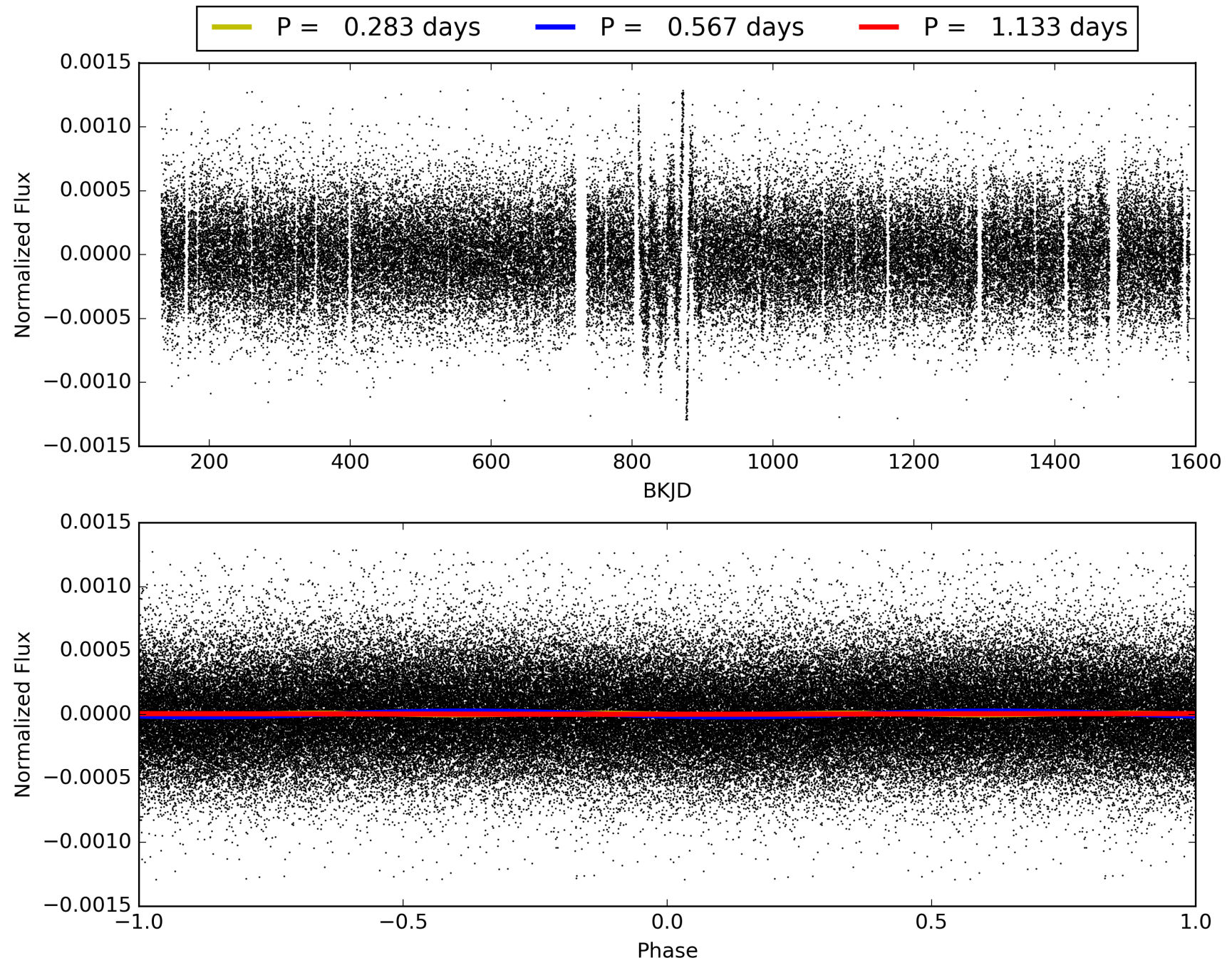
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007281454-01, PDC Light Curves

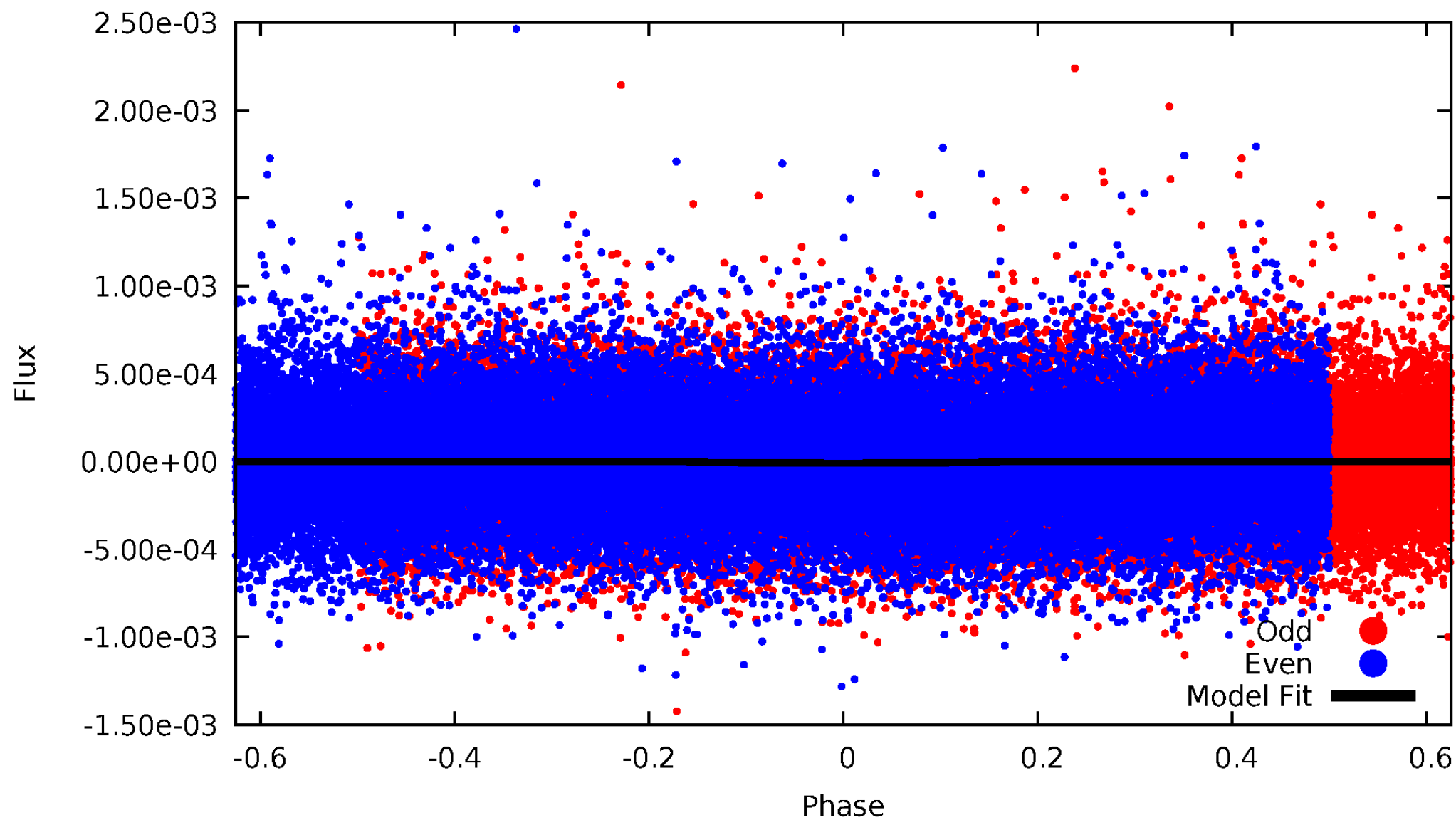


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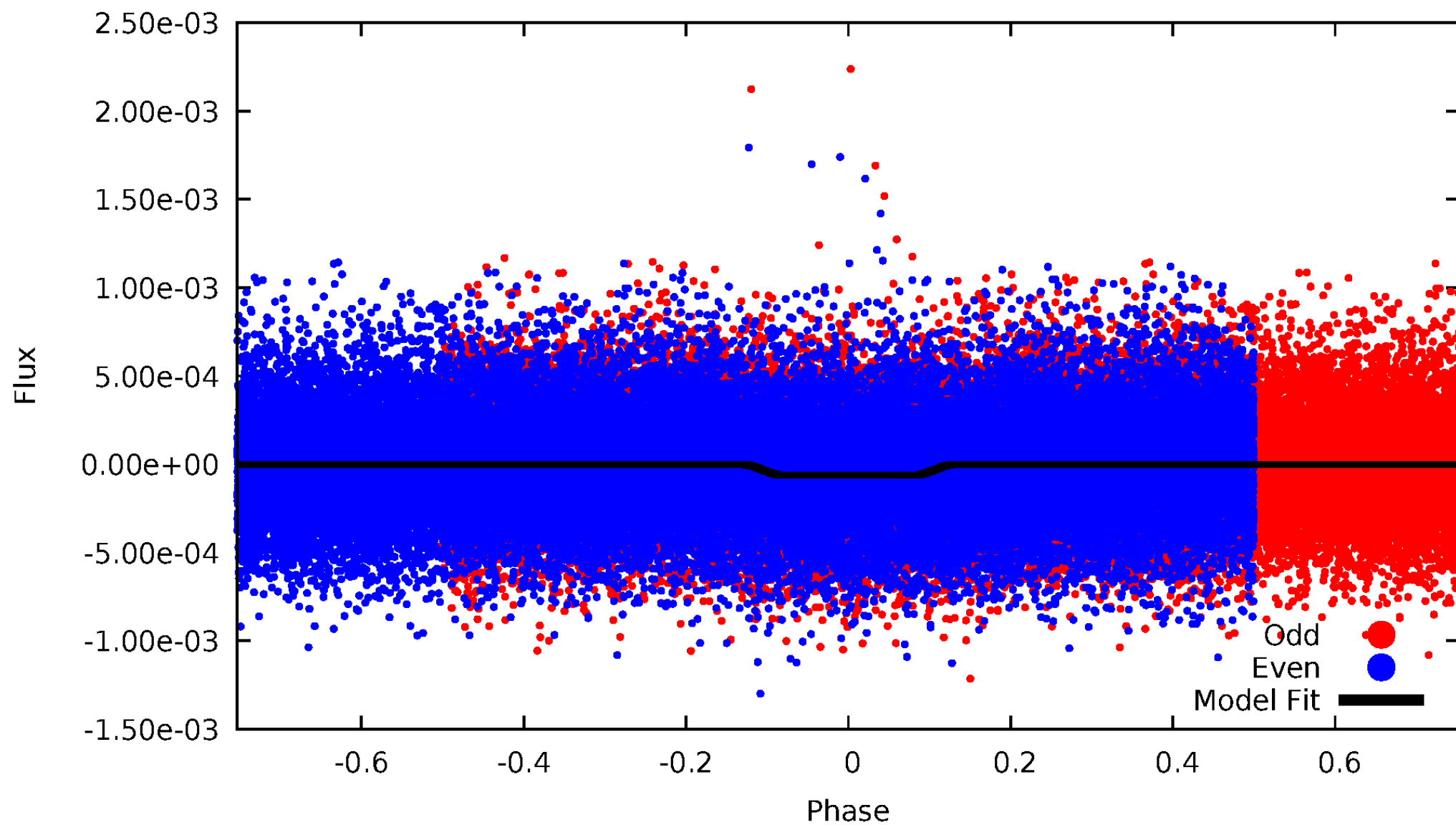
DV Odd/Even

TCE 007281454-01



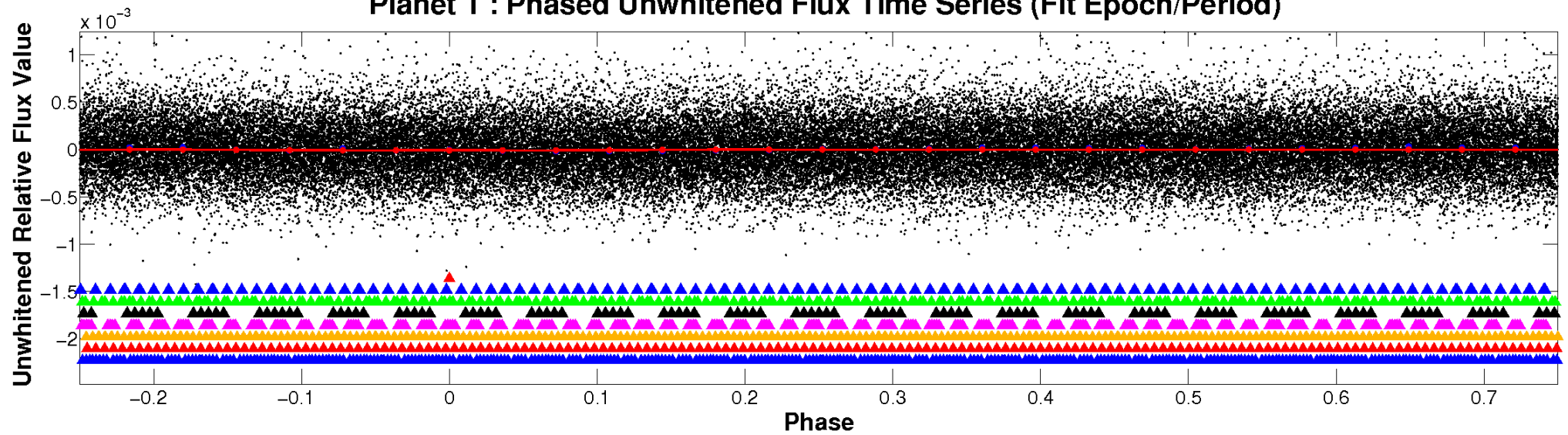
ALT Odd/Even

TCE 007281454-01

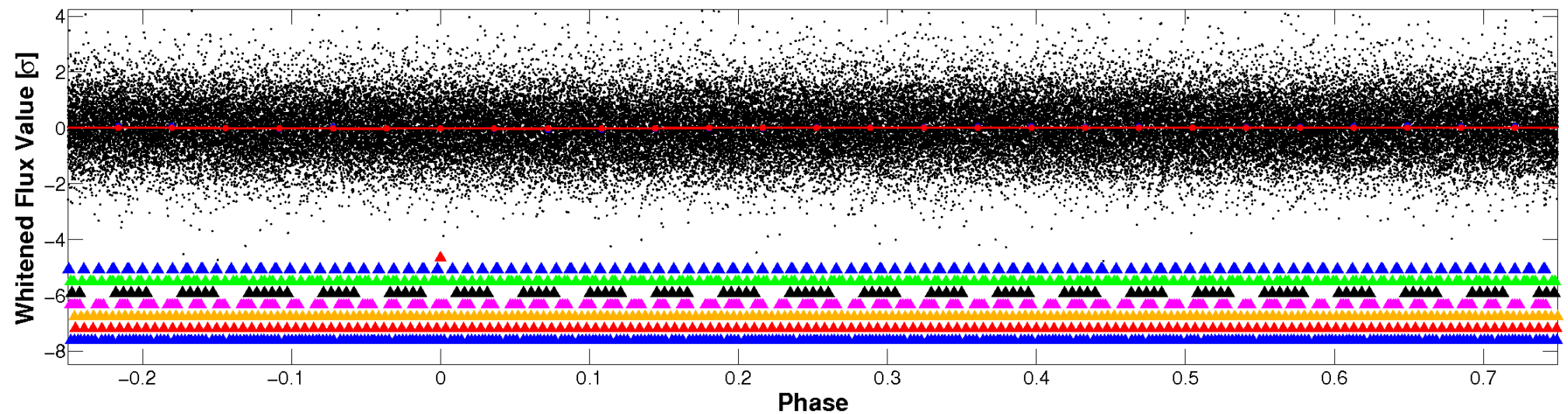


Non-Whitened Vs. Whitened Light Curve

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

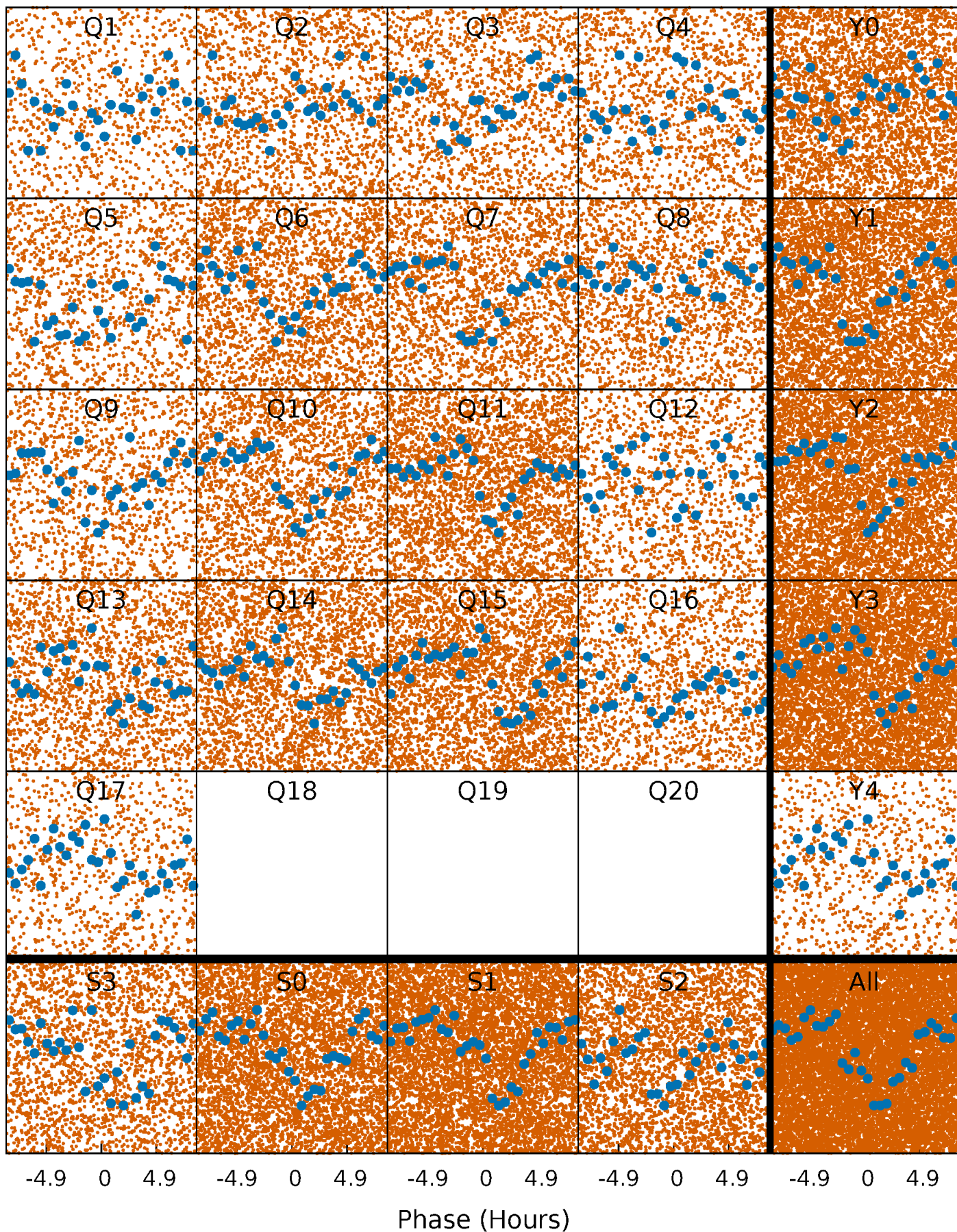


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



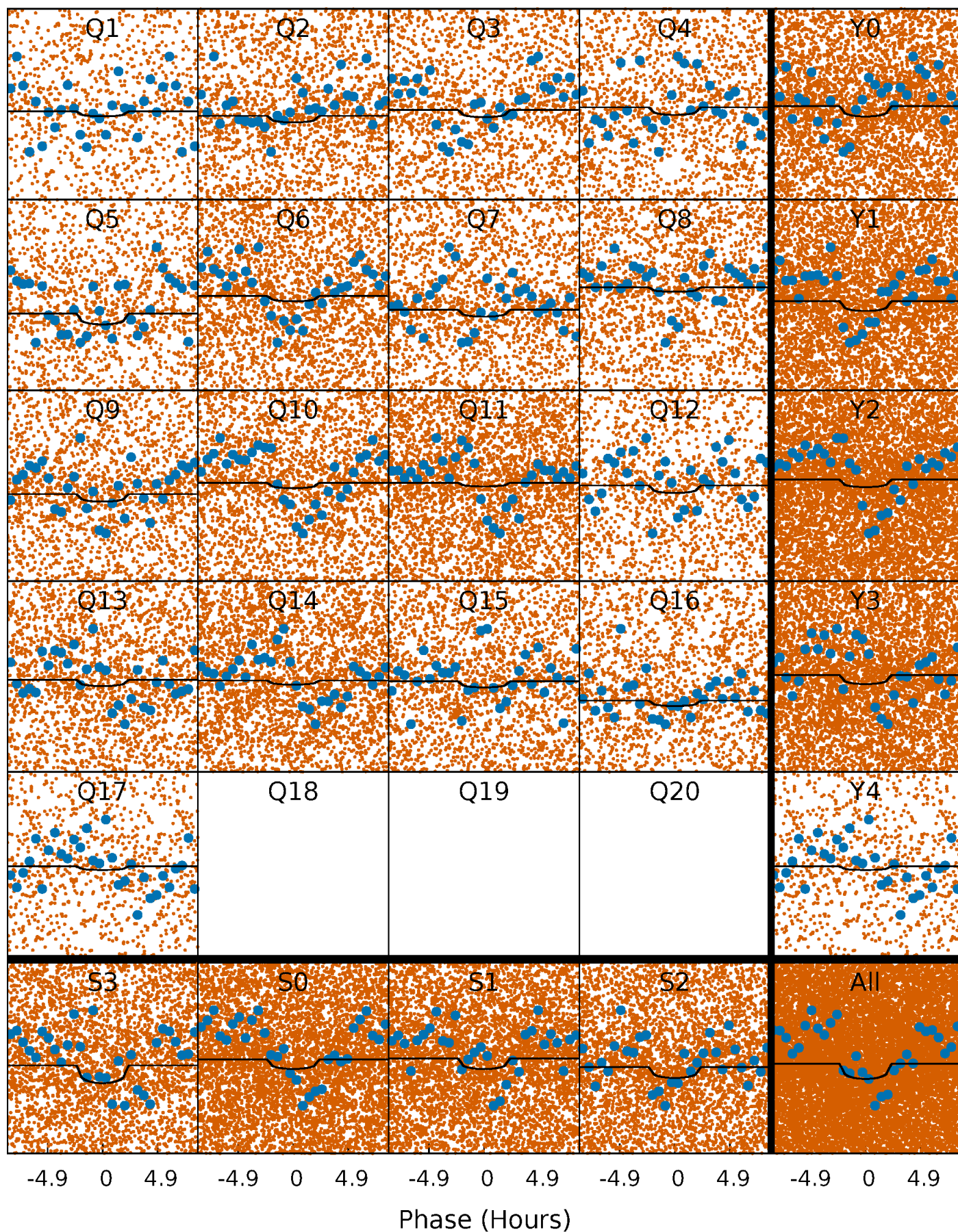
PDC Quarter-Phased Transit Curves

TCE 007281454-01 P= 0.566695 Days $T_0=131.938748$ (BKJD)



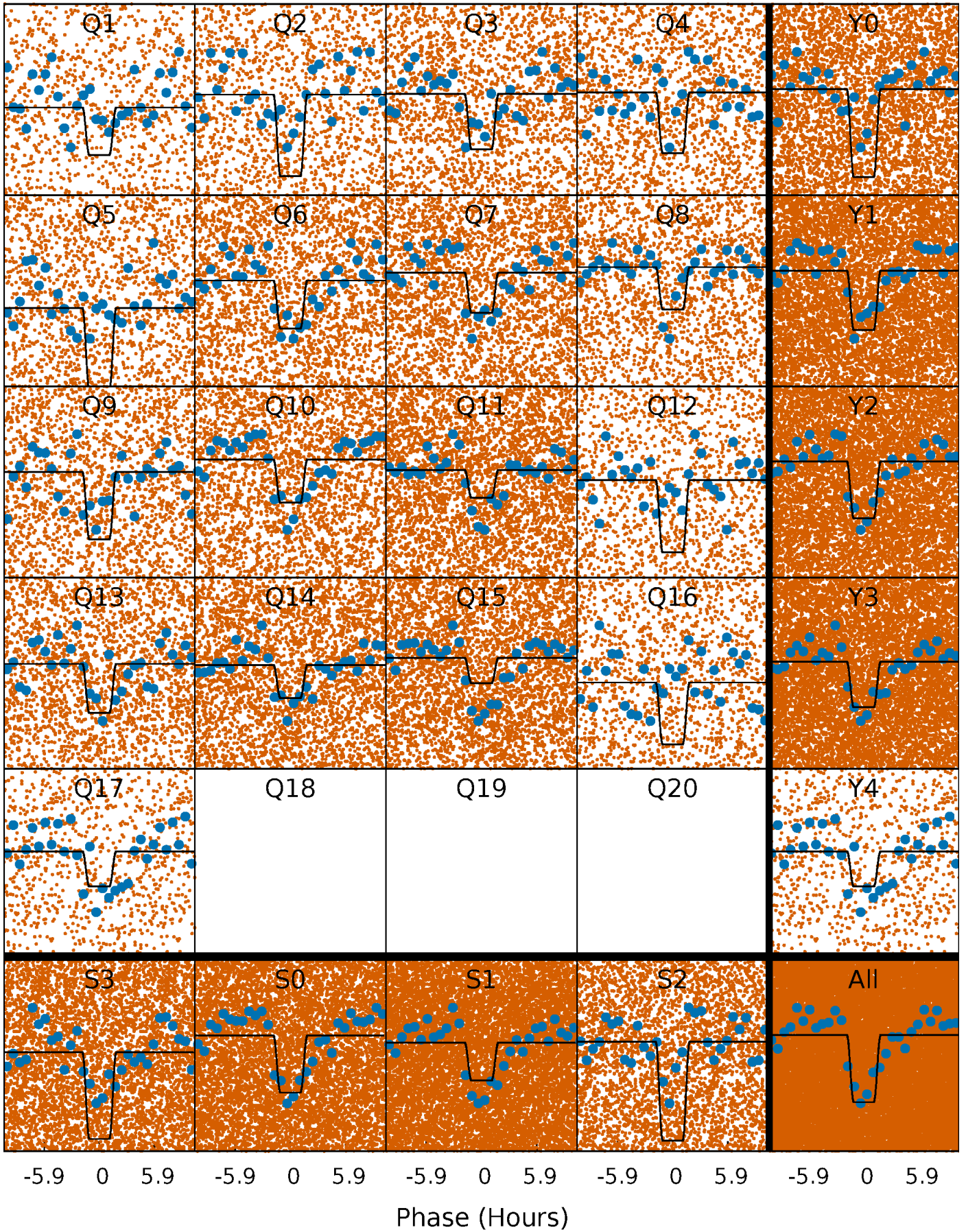
DV Quarter-Phased Transit Curves

TCE 007281454-01 P= 0.566695 Days $T_0=131.938748$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

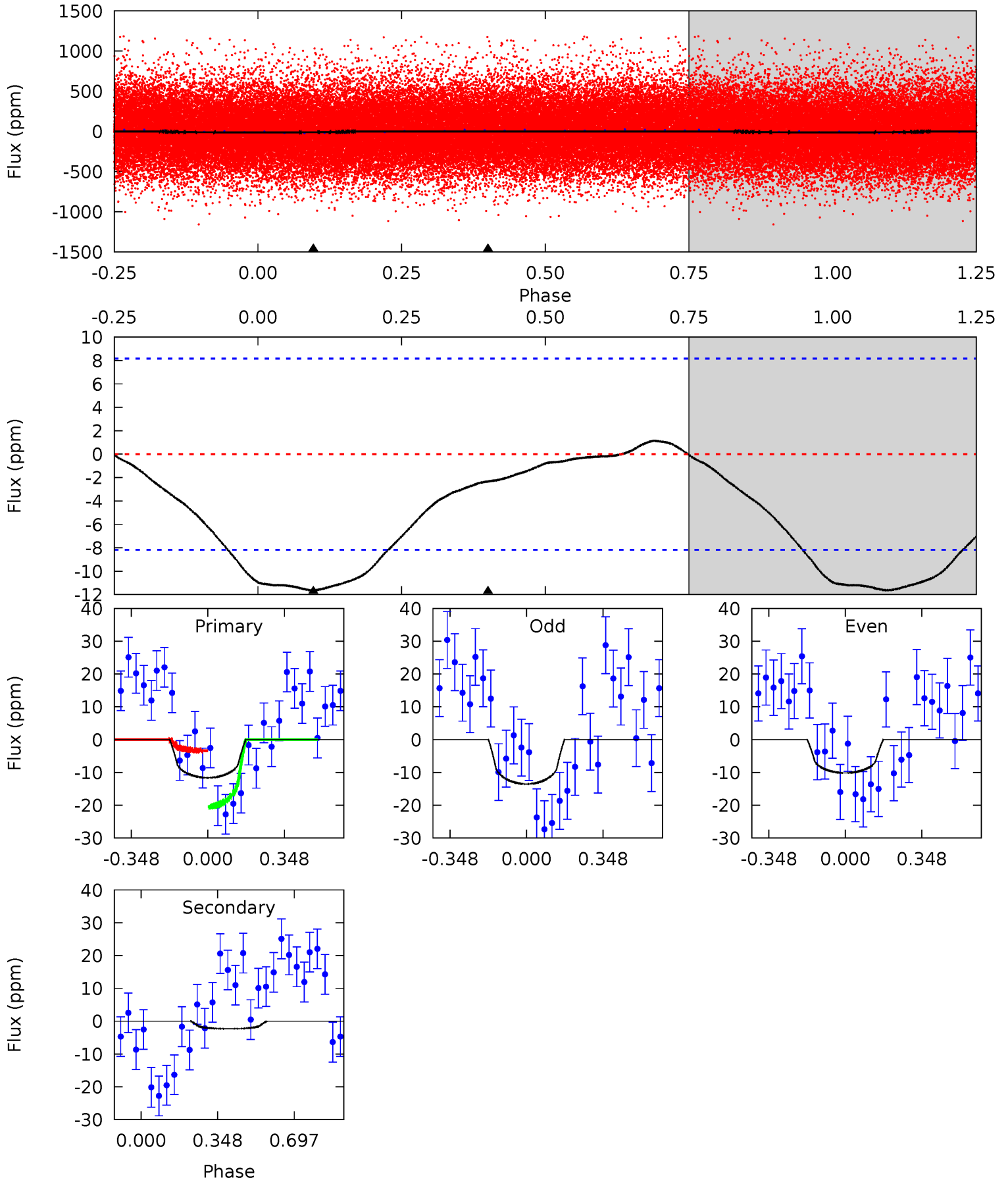
TCE 007281454-01 P= 0.566788 Days $T_0=131.836415$ (BKJD)



DV Model-Shift Uniqueness Test

007281454-01, P = 0.566695 Days, E = 131.372053 Days

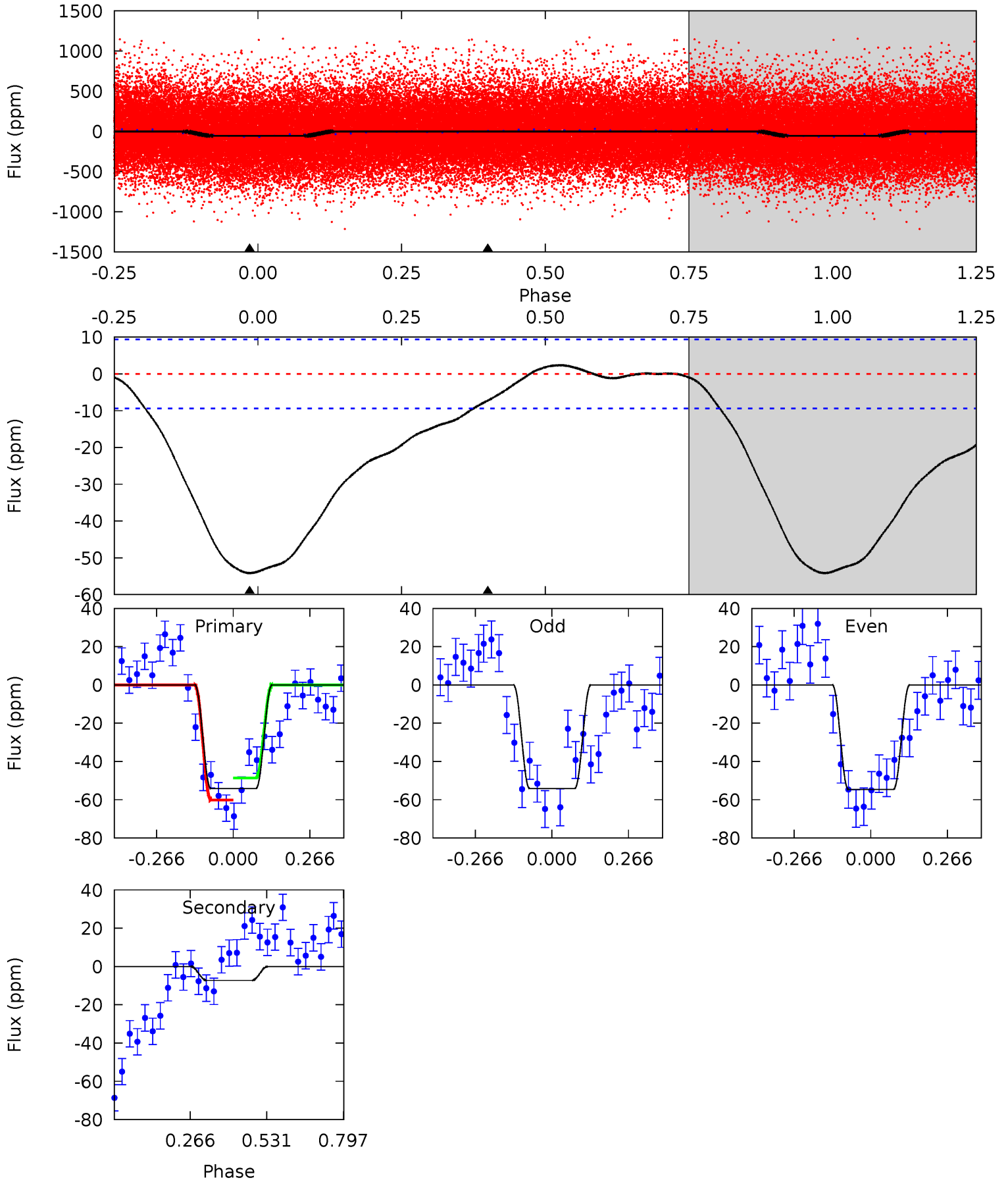
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.12	1.23	0	0	4.30	0.94	0.43	6.12	6.12	1.23	1.23	0.89	0.94	0.09	4.44



Alt Model-Shift Uniqueness Test

007281454-01, P = 0.566788 Days, E = 131.269627 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.1	3.36	0	0	4.36	1.11	0.08	25.1	25.1	3.36	3.36	0.11	1.04	0.04	2.61



Stellar Parameters For KIC 007281454

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5000^{+150}_{-150}	$4.708^{+0.049}_{-0.021}$	$-1.580^{+0.300}_{-0.250}$	$0.549^{+0.025}_{-0.030}$	$0.561^{+0.038}_{-0.017}$	$4.773^{+0.785}_{-0.461}$
	+3%/-3%	+1%/-0%	+19%/-16%	+5%/-5%	+7%/-3%	+16%/-10%
Source	PHO1	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 007281454-01 / KOI 3055.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-2 ± 2	$0.59^{+0.58}_{-0.40}$	2155^{+75}_{-64}	2097^{+1461}_{-4609}	$0.349^{+2.845}_{-0.304}$
Alt.	-7 ± 2	$0.76^{+0.63}_{-0.49}$	2159^{+75}_{-71}	2775^{+1304}_{-4923}	$0.842^{+6.213}_{-0.608}$

T_{max} = Theoretical Maximum Planetary Temperature

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

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

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

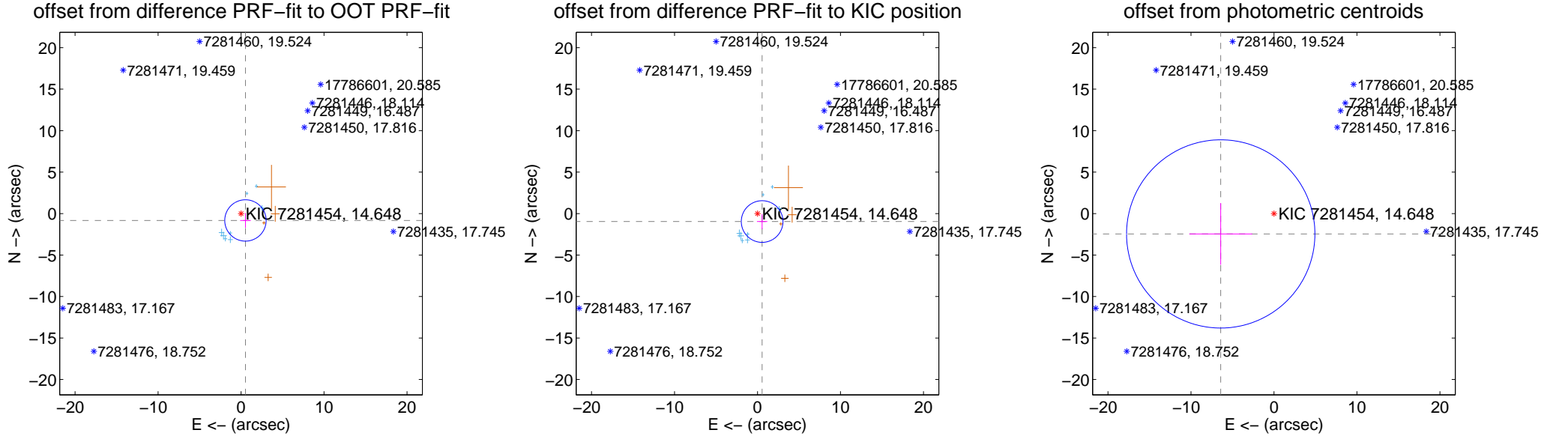
DV Centroid Data

Supplemental centroid analysis for 007281454-01. Kepler magnitude: 14.65. Transit SNR 3.05

There are 8 quarters with good PRF difference image offsets

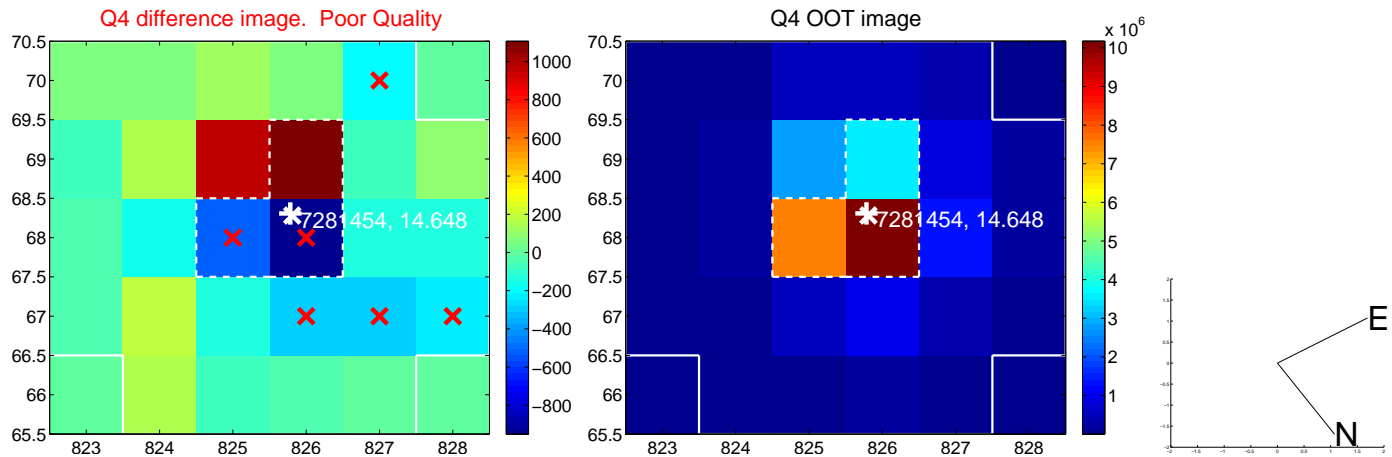
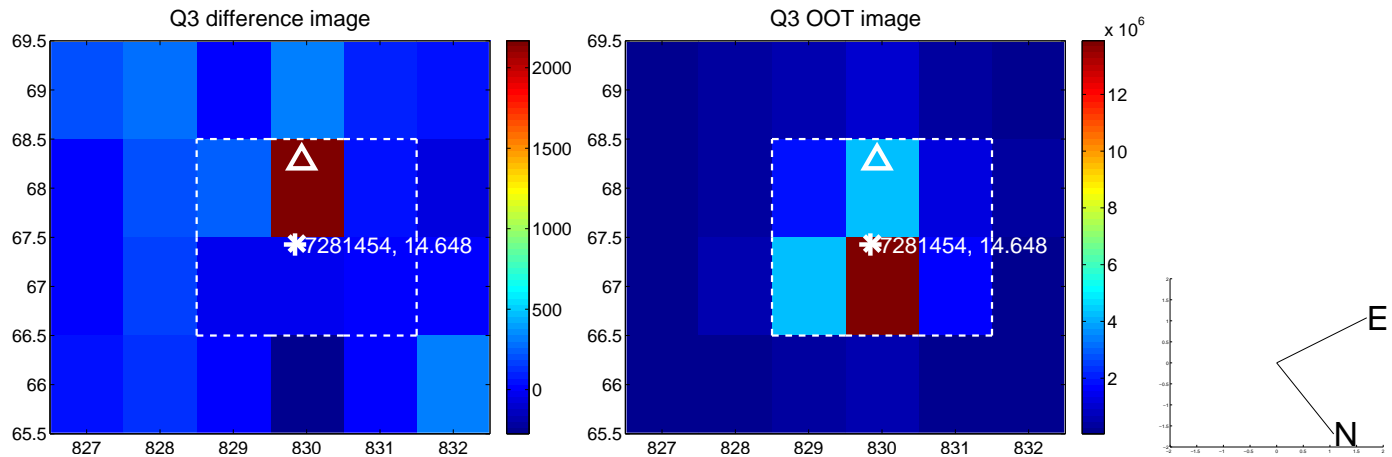
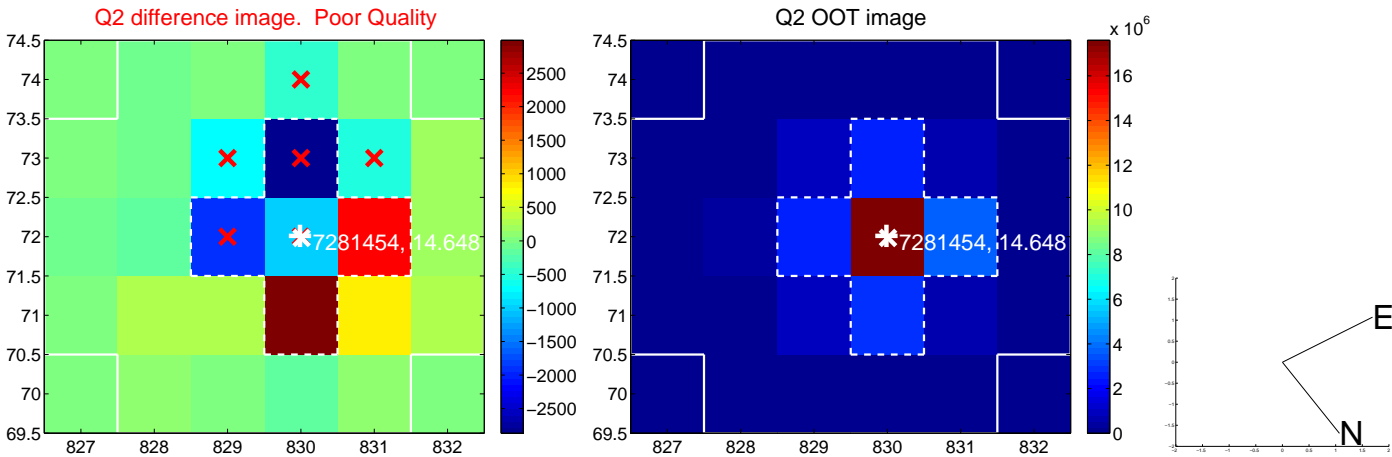
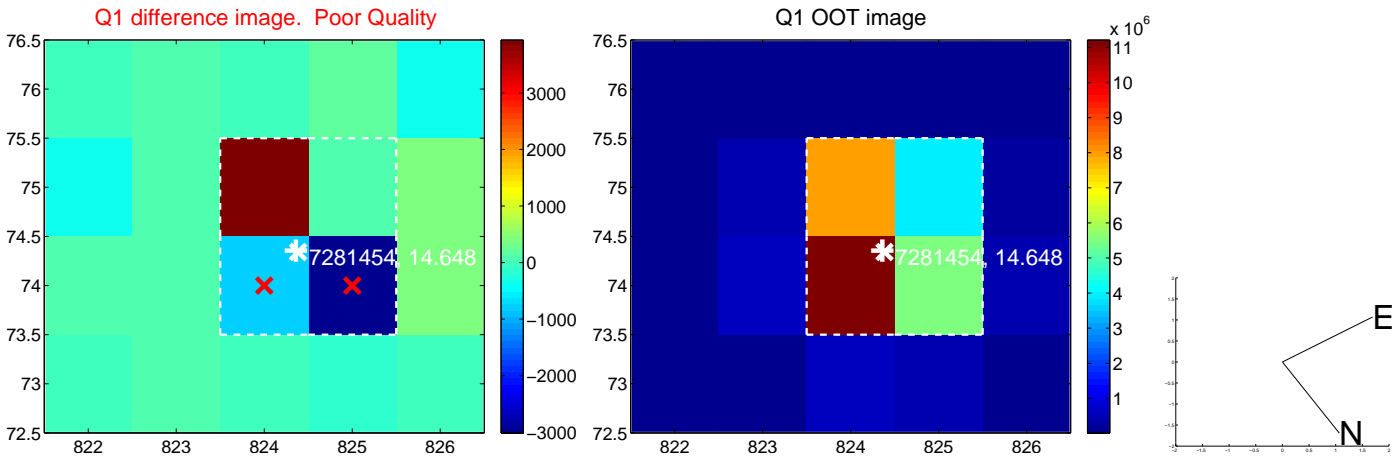
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.983 ± 0.831	1.18	-0.529 ± 0.641	-0.829 ± 0.897
PRF-fit source offset from KIC position	1.109 ± 0.837	1.33	-0.558 ± 0.628	-0.959 ± 0.897
photometric centroid source offset	6.87 ± 3.78	1.82	6.41 ± 3.79	-2.45 ± 3.72

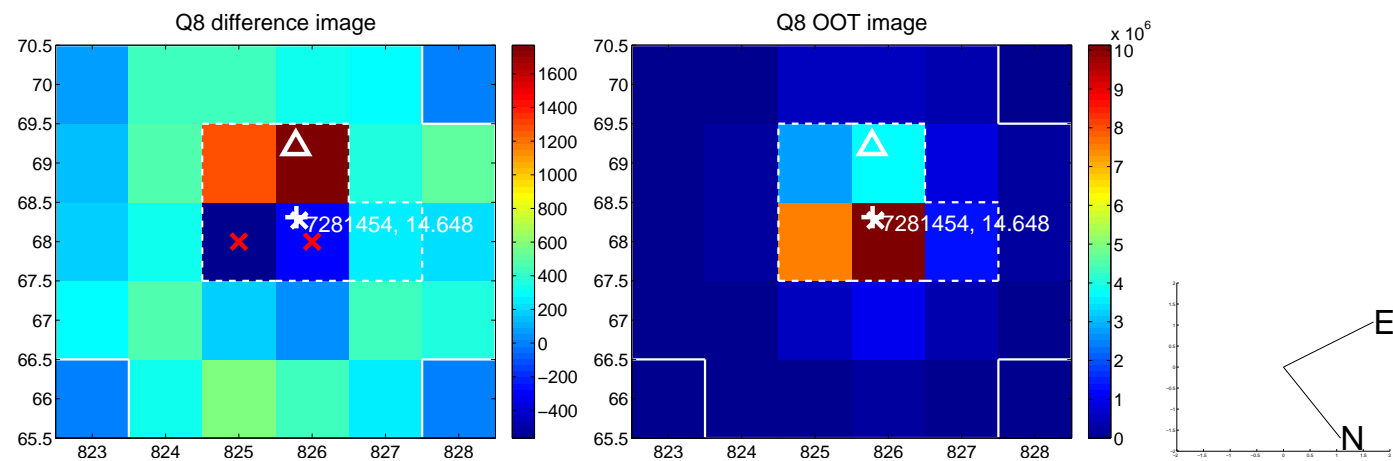
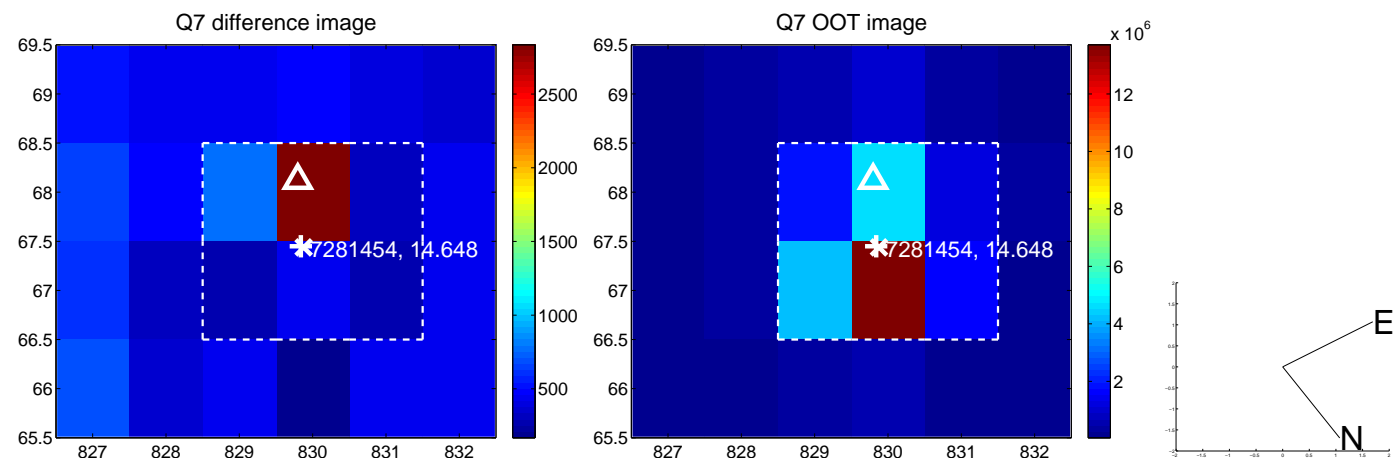
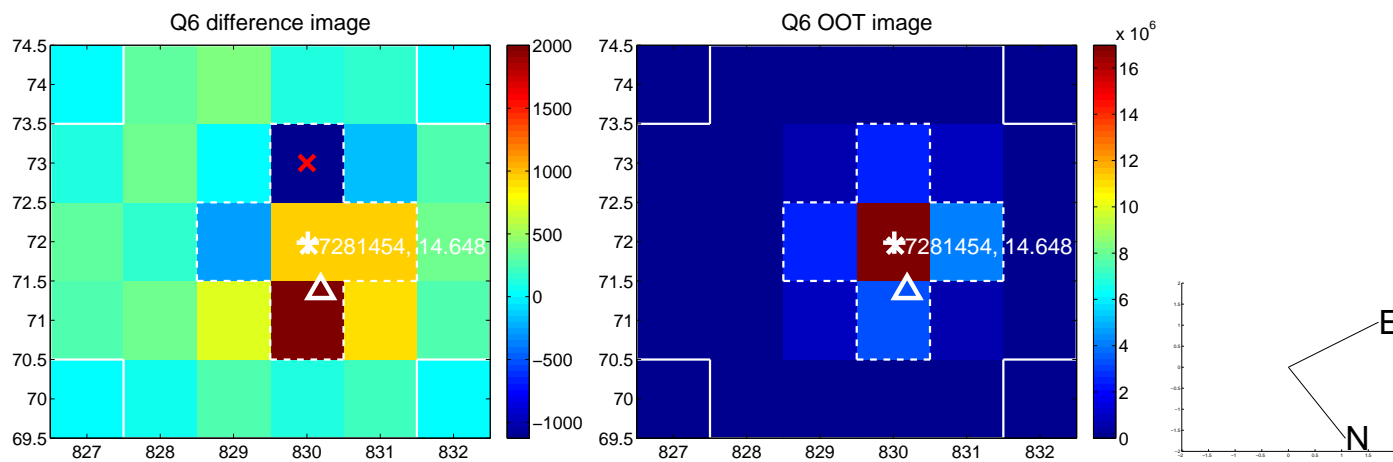
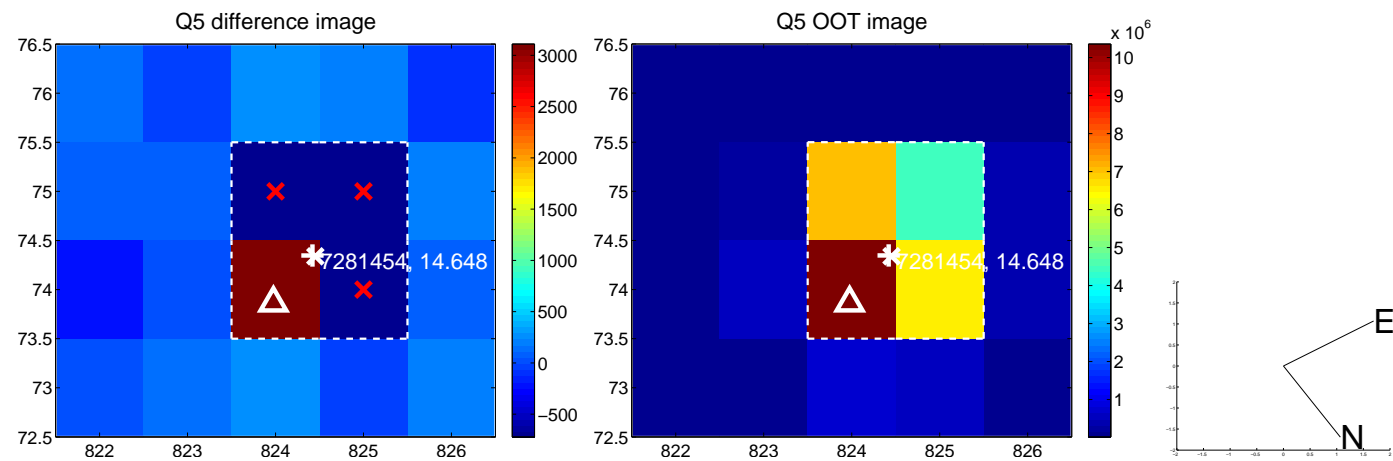


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

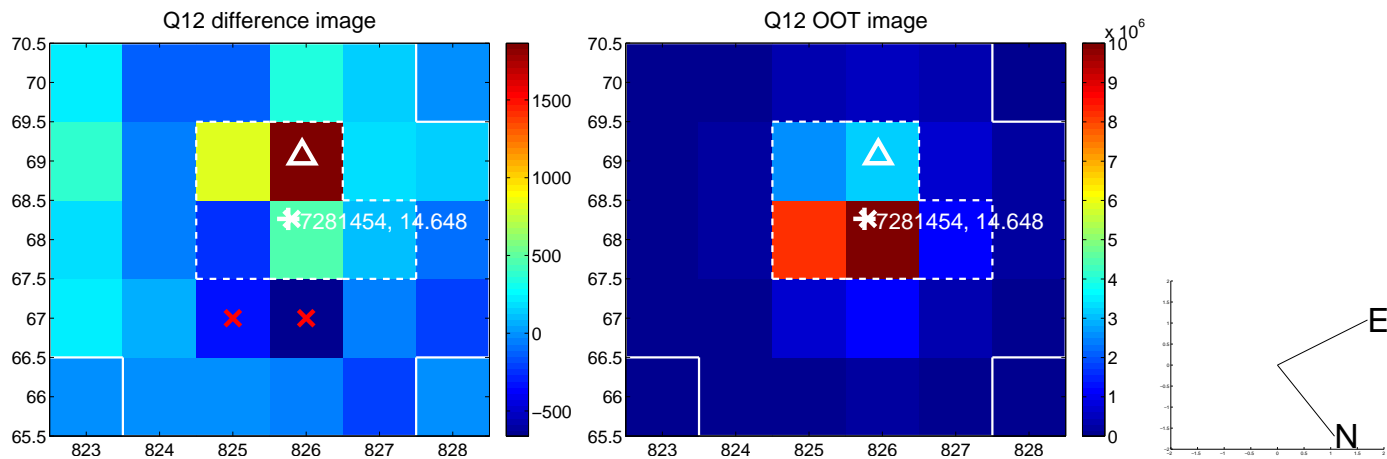
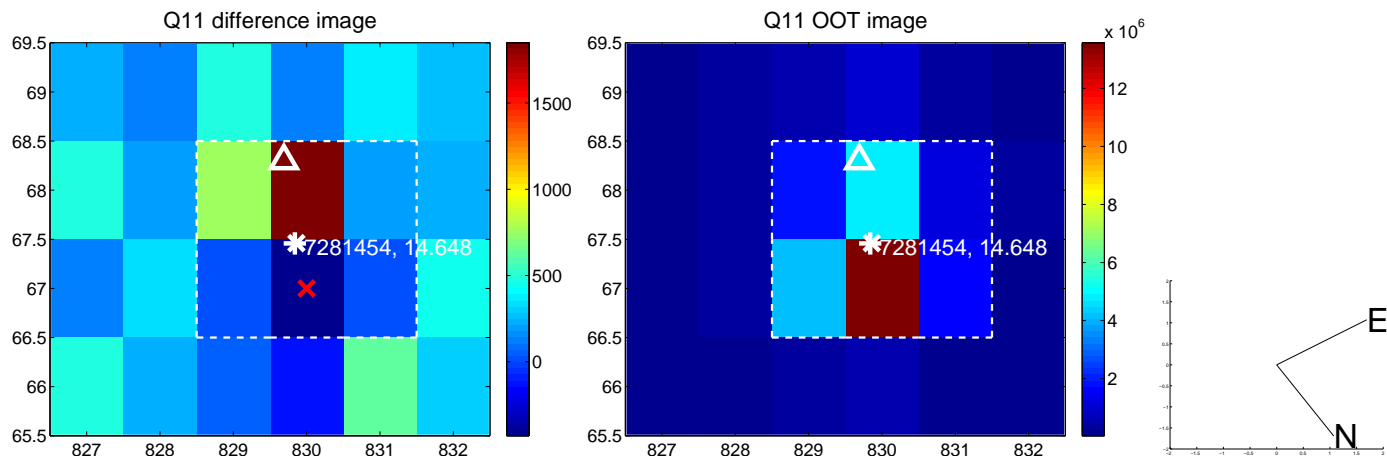
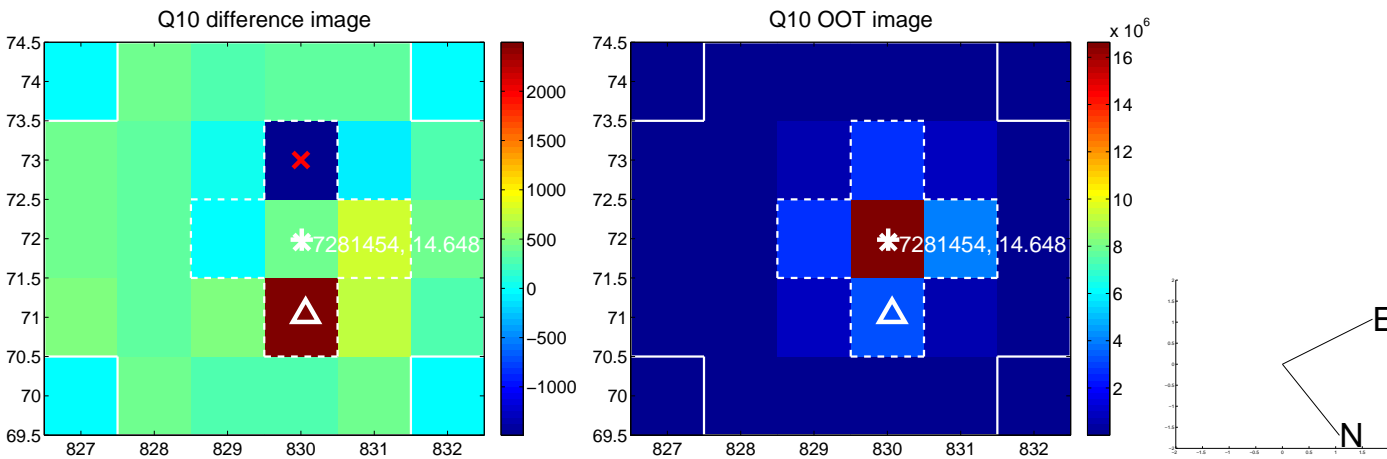
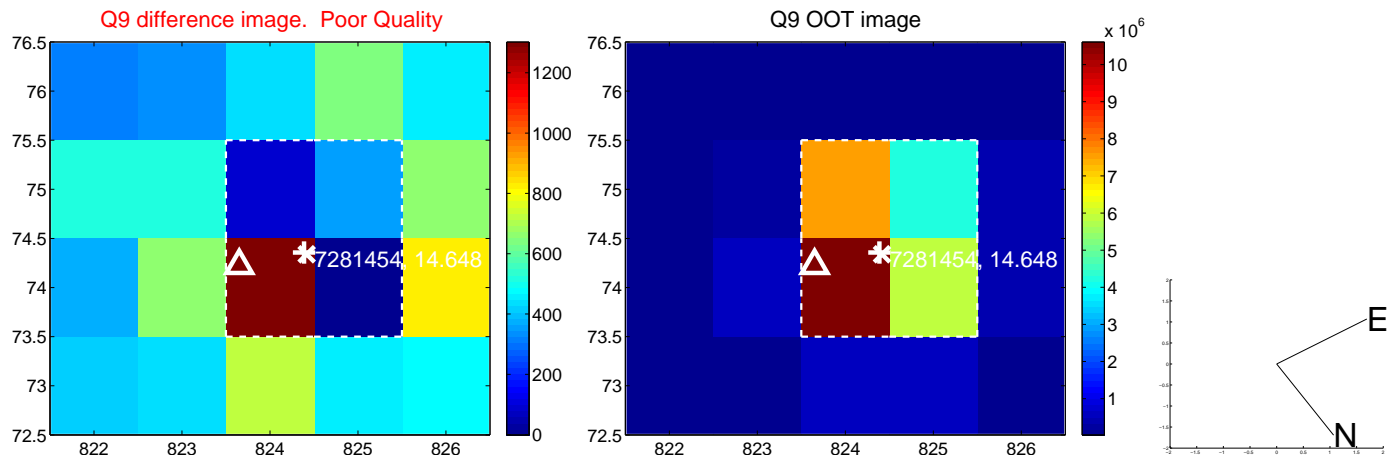
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



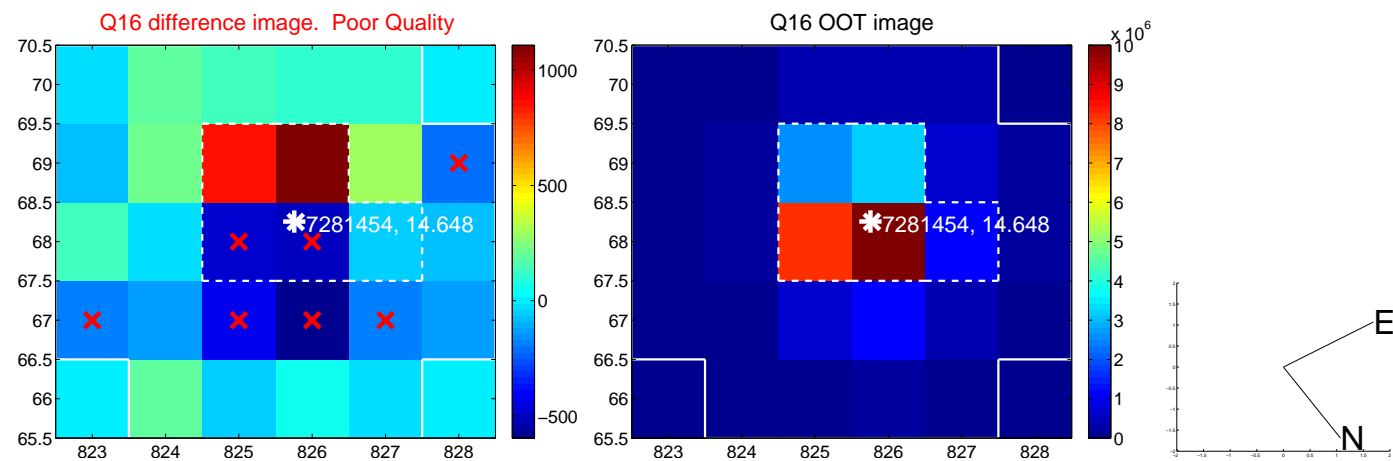
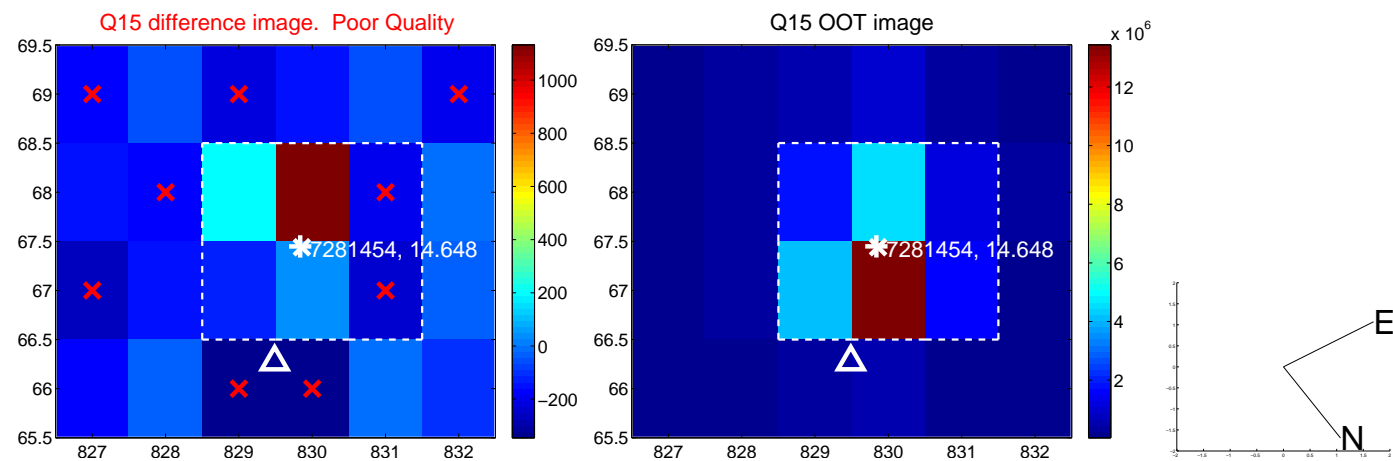
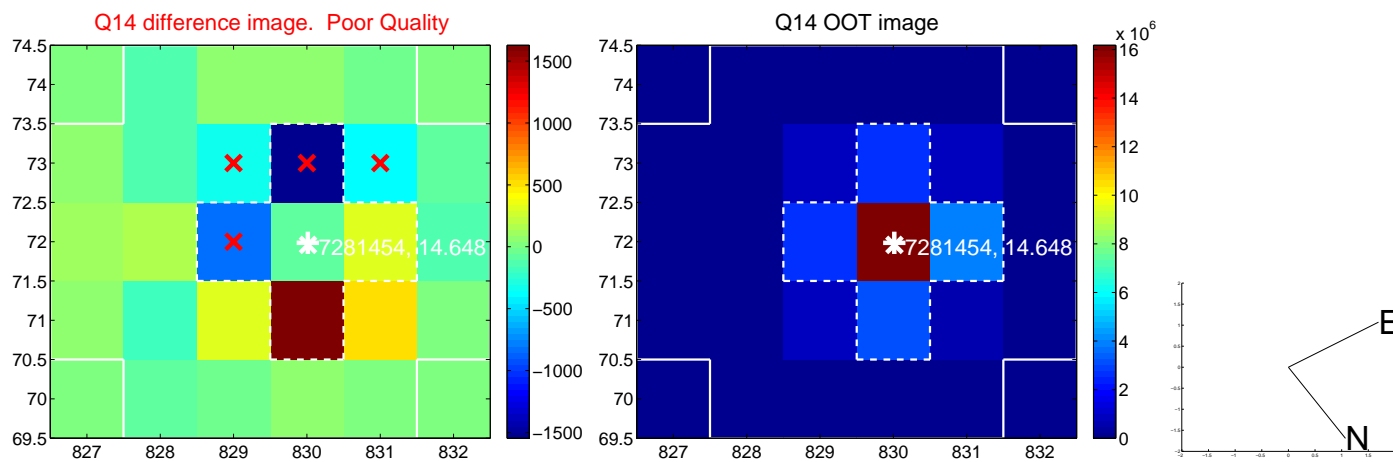
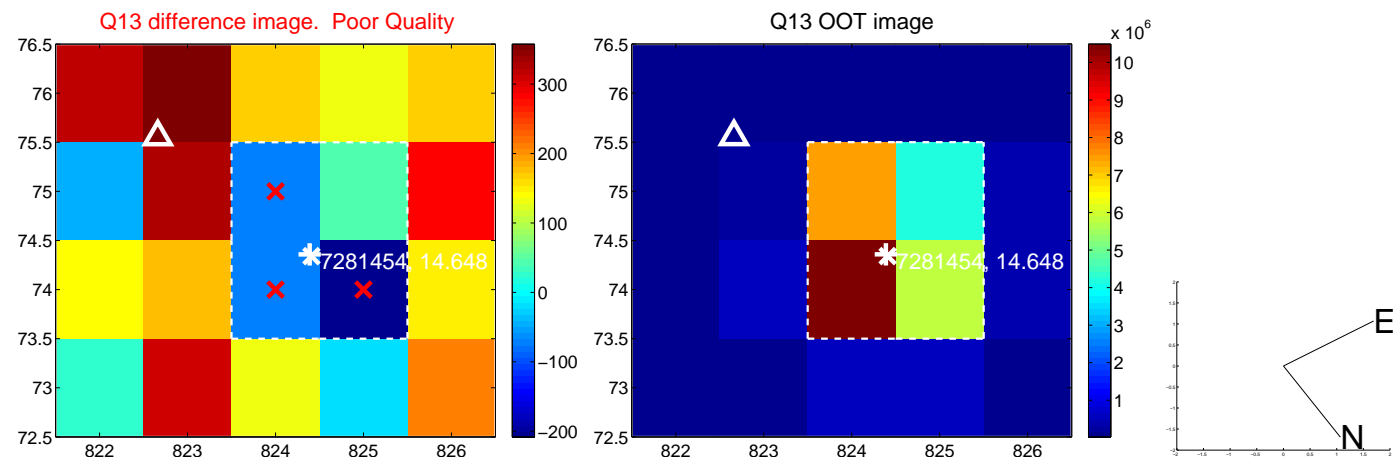
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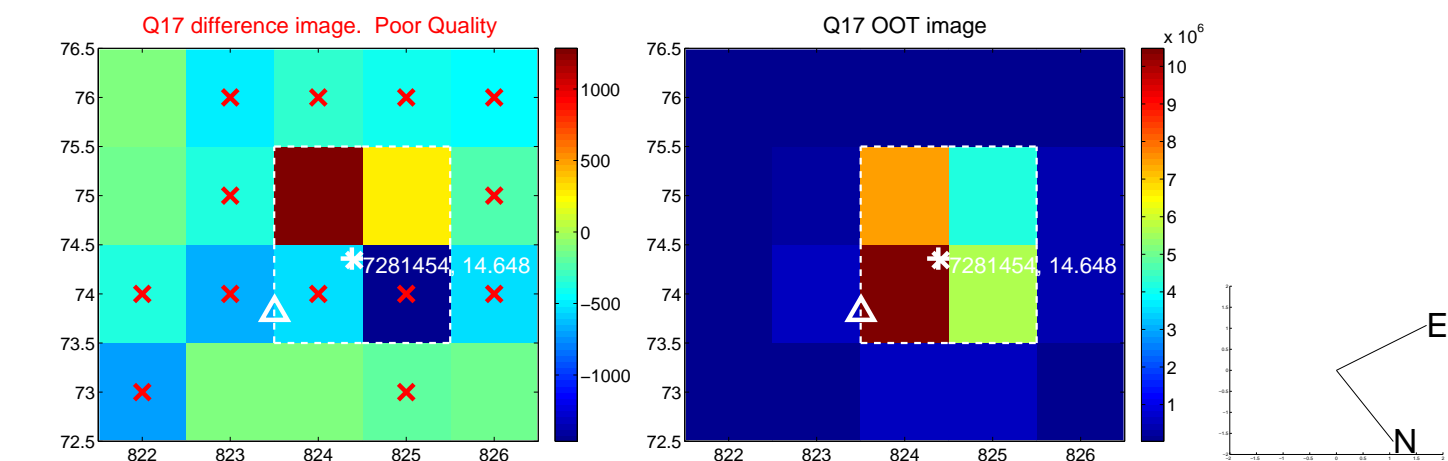
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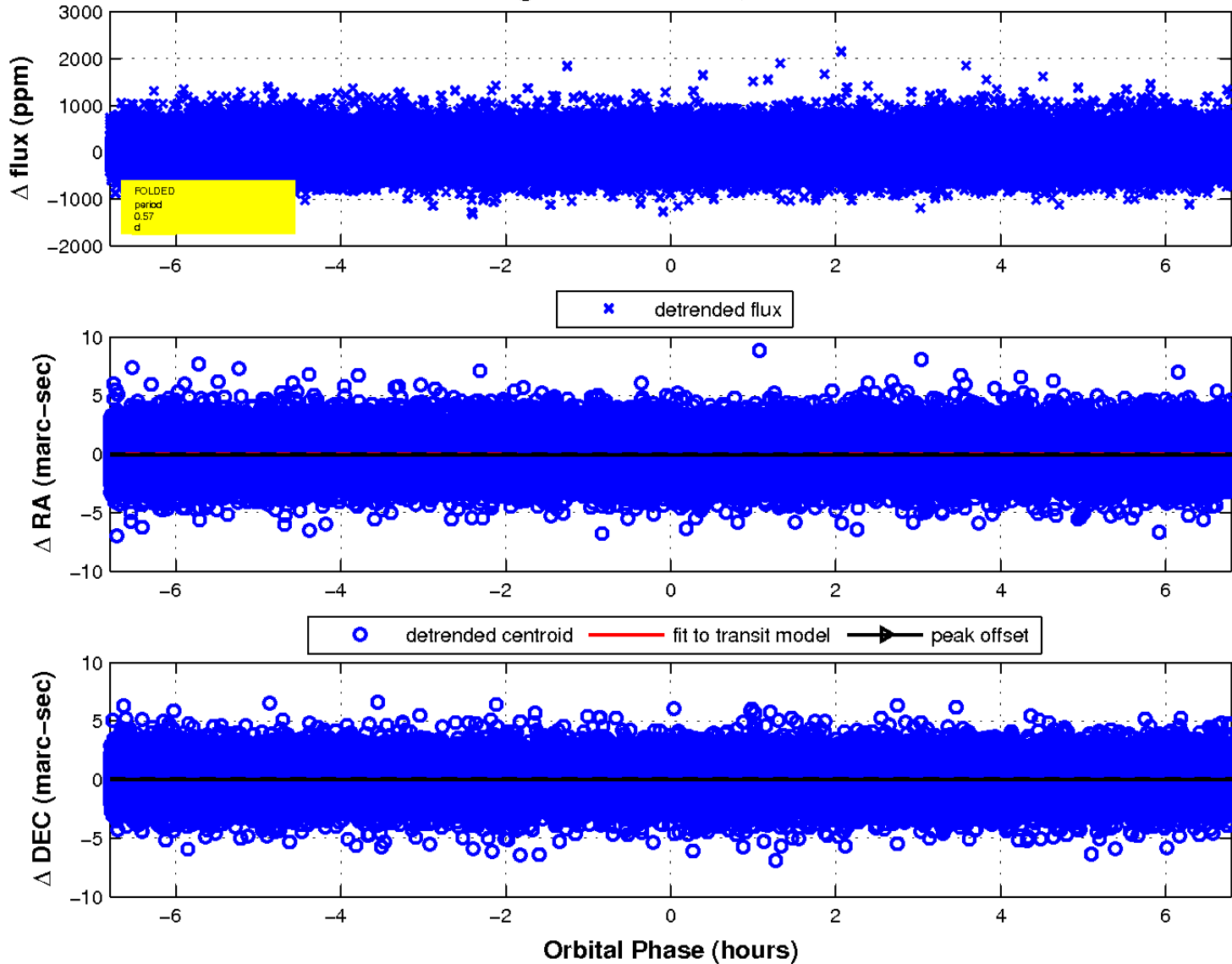
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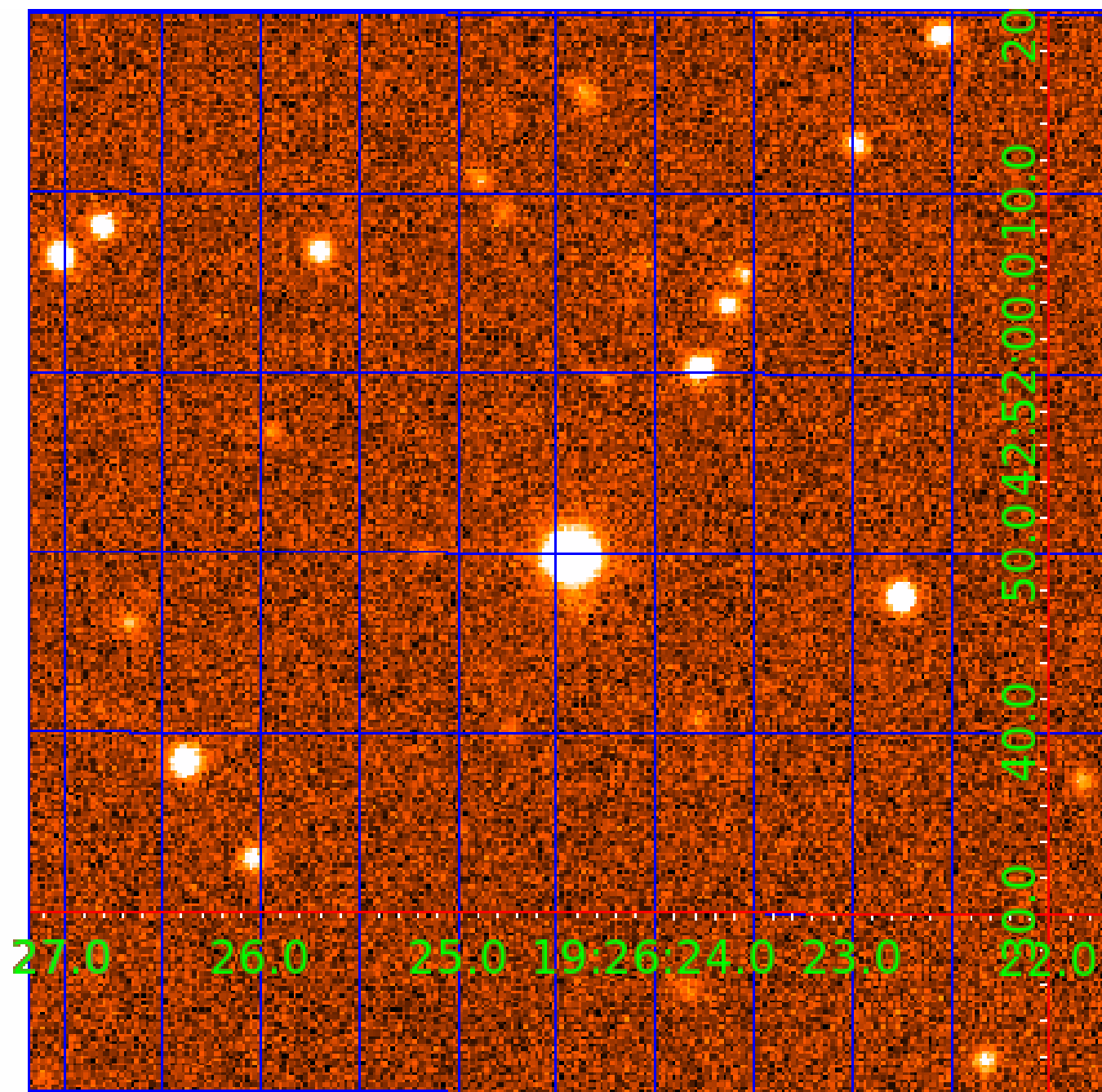


fluxWeightedCentroids, Planet 1 of 8



UKIRT Image

Declination



KIC 007281454

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

Ephemeris Match Information For 007281454-02

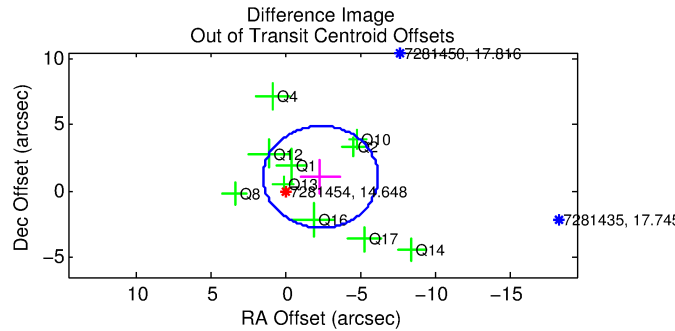
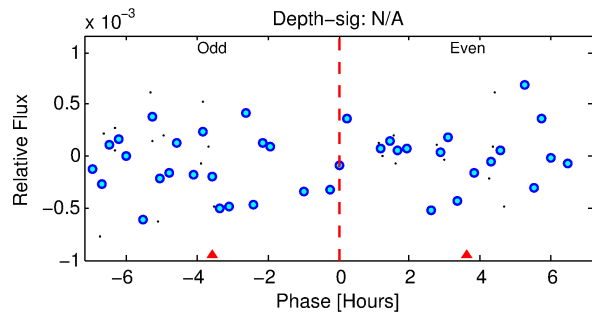
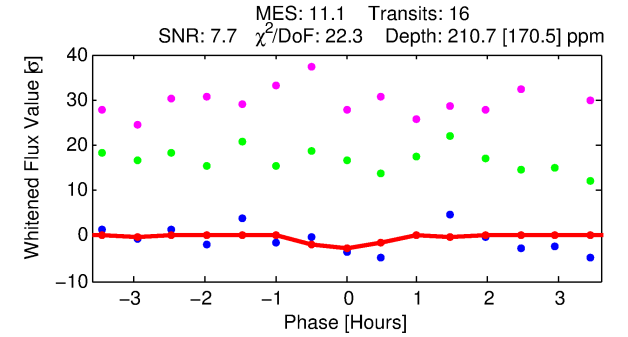
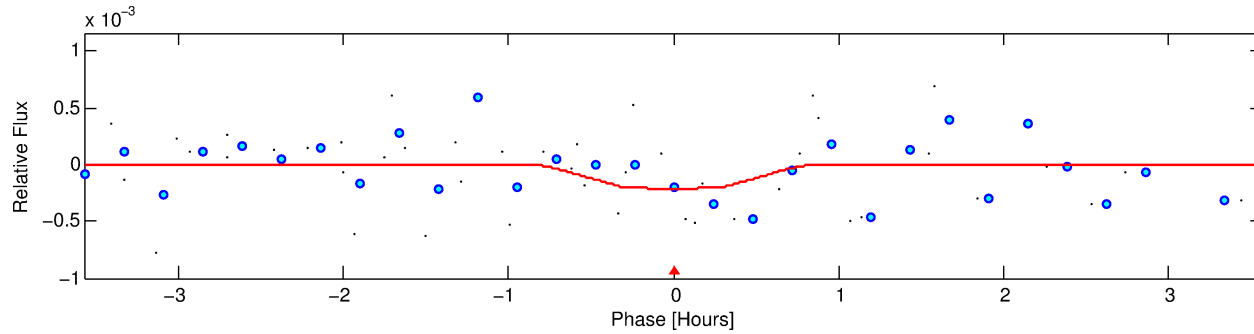
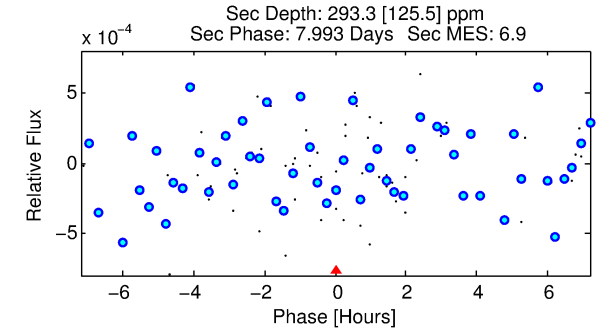
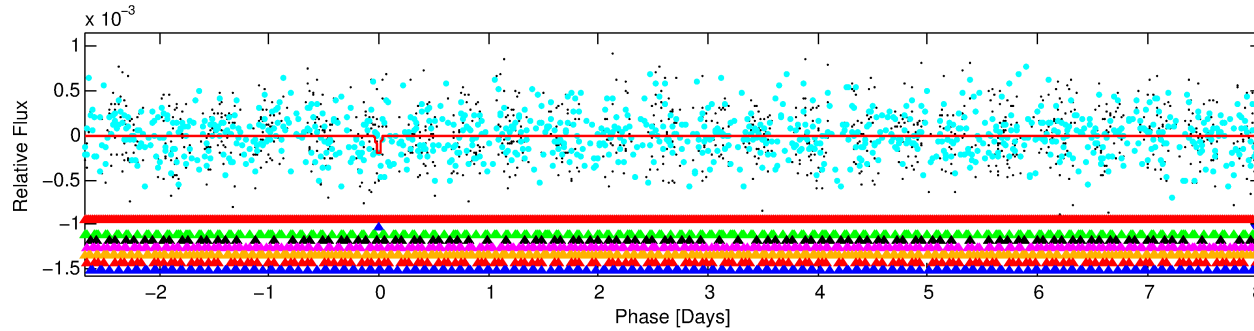
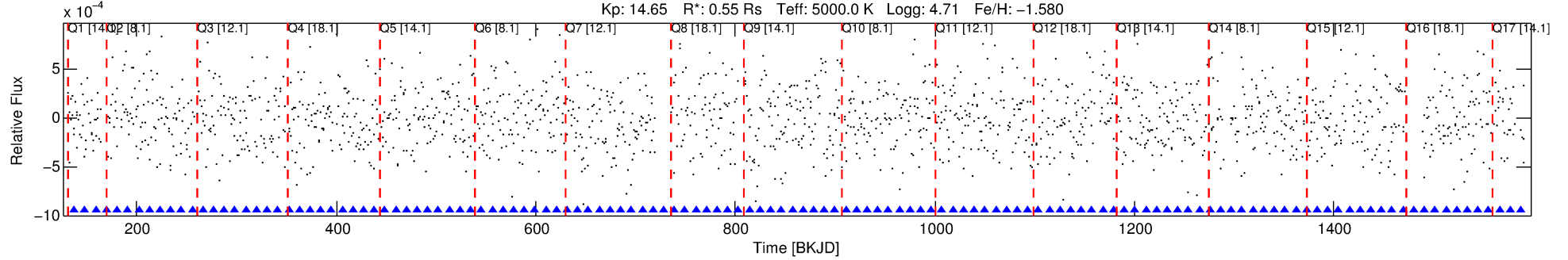
No Significant Match Found

DV One-Page Summary

KIC: 7281454 Candidate: 2 of 8 Period: 10.739 d

KOI: K03055 Corr: No Ephemeris Match

Kp: 14.65 R*: 0.55 Rs Teff: 5000.0 K Logg: 4.71 Fe/H: -1.580



DV Fit Results:

Period = 10.73915 [0.00031] d
Epoch = 137.5371 [0.0284] BKJD
Rp/R* = 0.0142 [0.0712]
a/R* = 51.79 [1241.56]
b = 0.68 [19.37]
Seff = 27.32 [4.00]
Teq = 583 [21] K
Rp = 0.85 [4.27] Re
a = 0.0786 [0.0041] AU
Ag = 1377.08 [13820.84] [0.10σ]
Teffp = 5491 [13777] K [0.36σ]

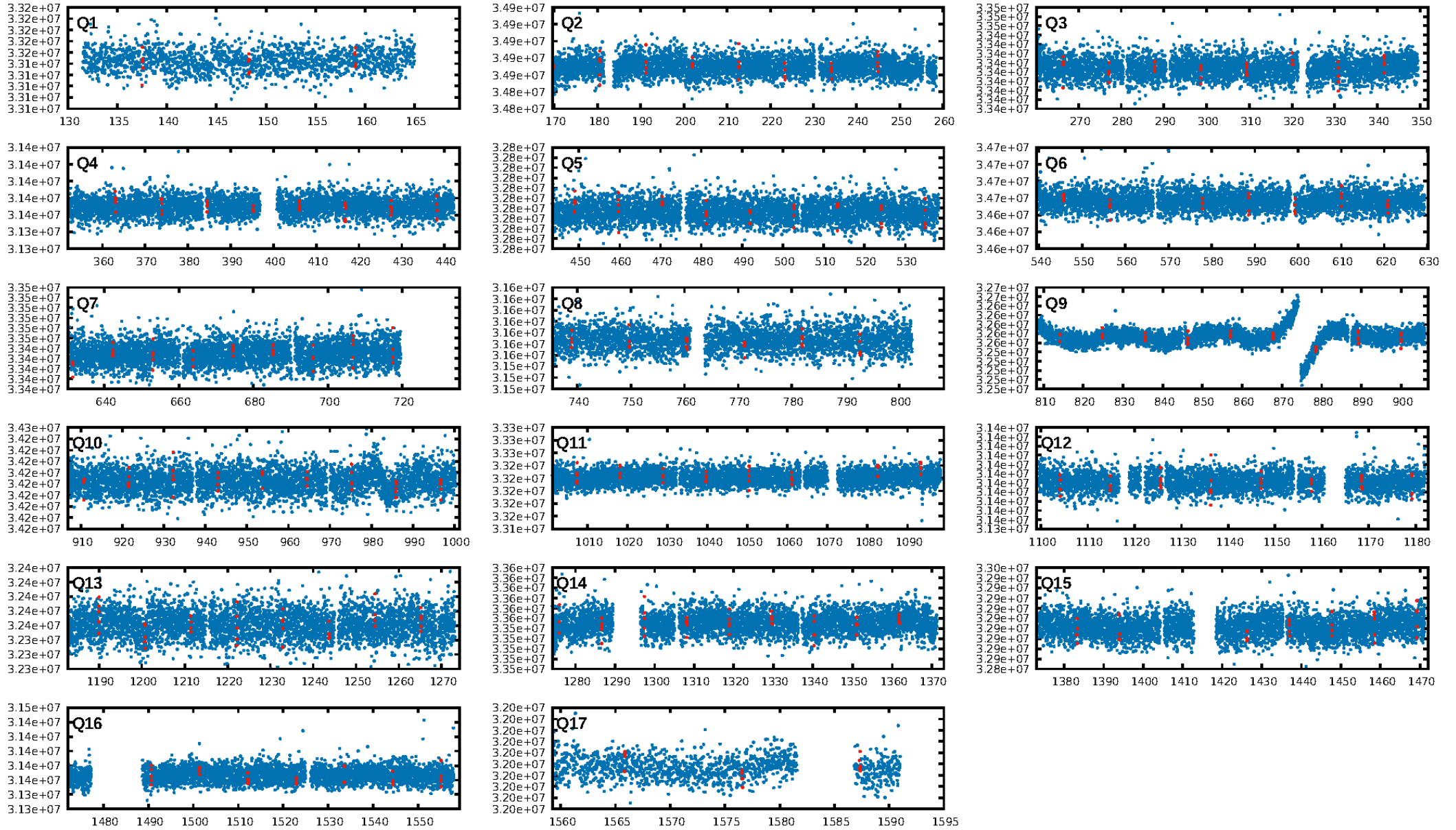
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [32.23σ]
LongPeriod-sig: 100.0% [38.69σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: 8.74e-07
RollingBand-fgt: 1.00 [16/16]
GhostDiagnostic-chr: 13.52
Centroid-sig: 78.6%
Centroid-so: 0.467 arcsec [0.40σ]
OotOffset-rm: 2.601 arcsec [2.03σ]
KicOffset-rm: 2.571 arcsec [2.02σ]
OotOffset-st: 3/0/4/3 [10]
KicOffset-st: 3/0/4/3 [10]
DiffImageQuality-fgm: 0.00 [0/10]
DiffImageOverlap-fno: 0.00 [0/17]

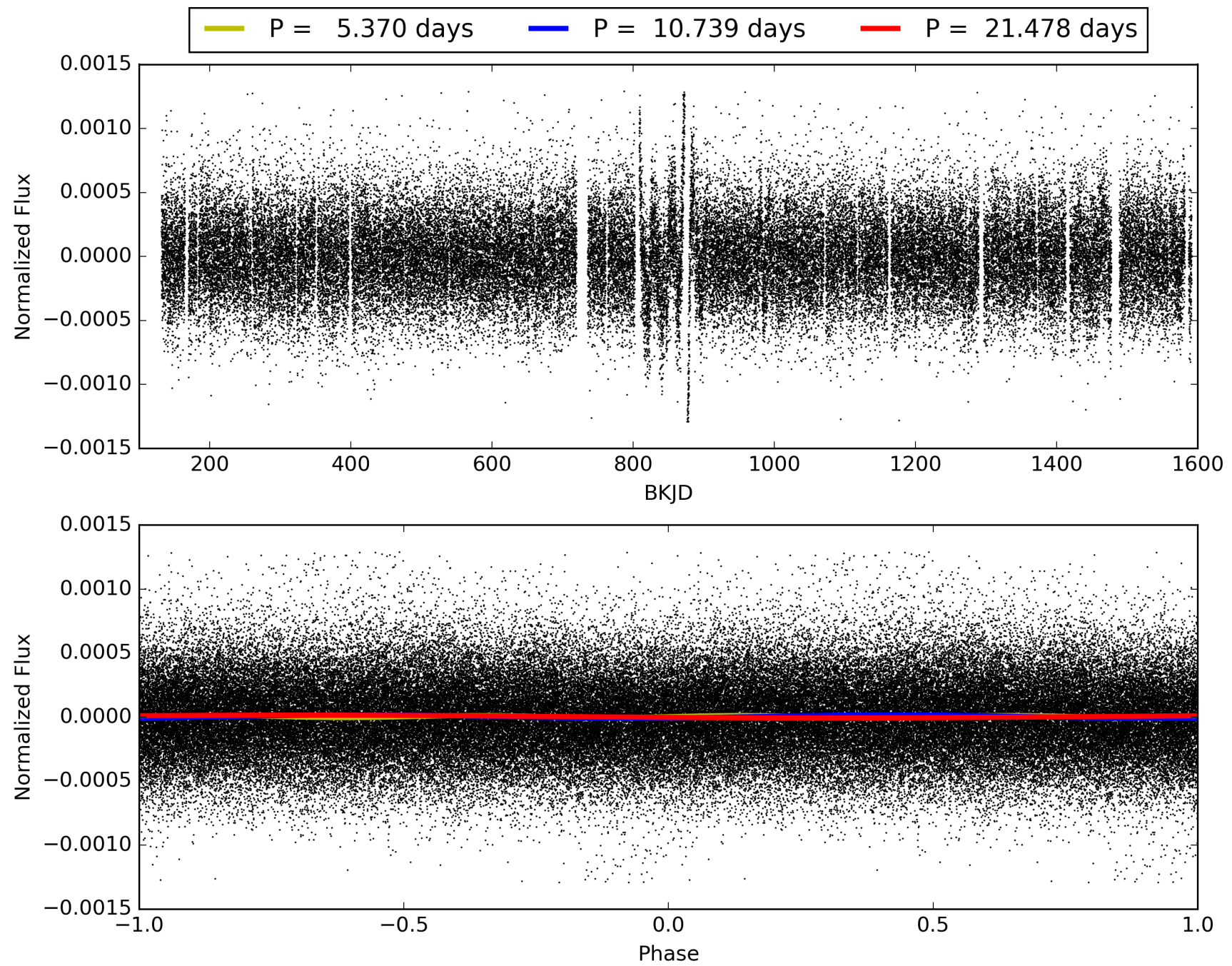
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 10:46:44 Z

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

TCE 007281454-02, PDC Light Curves

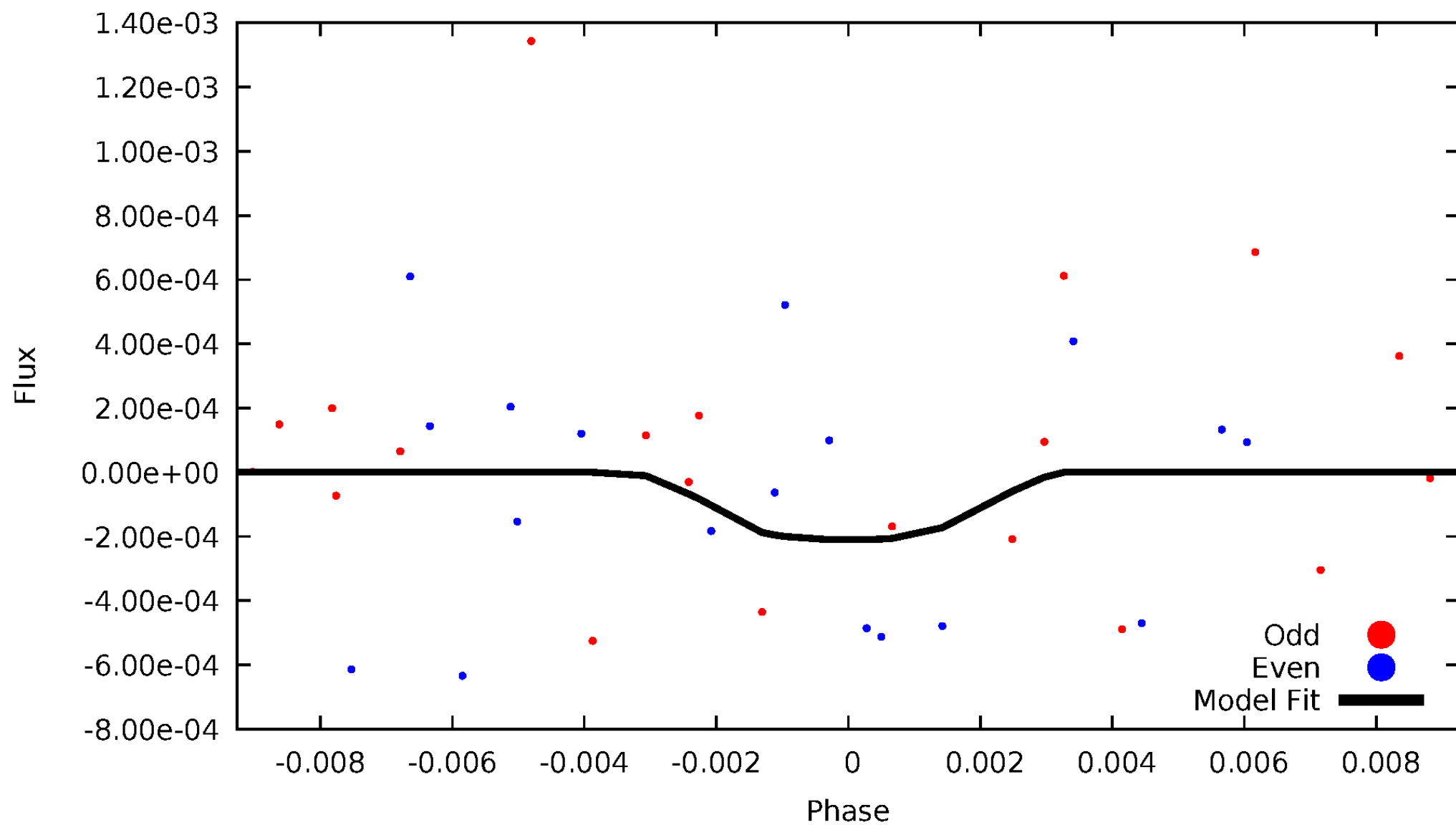


TCE 007281454-02



DV Odd/Even

TCE 007281454-02

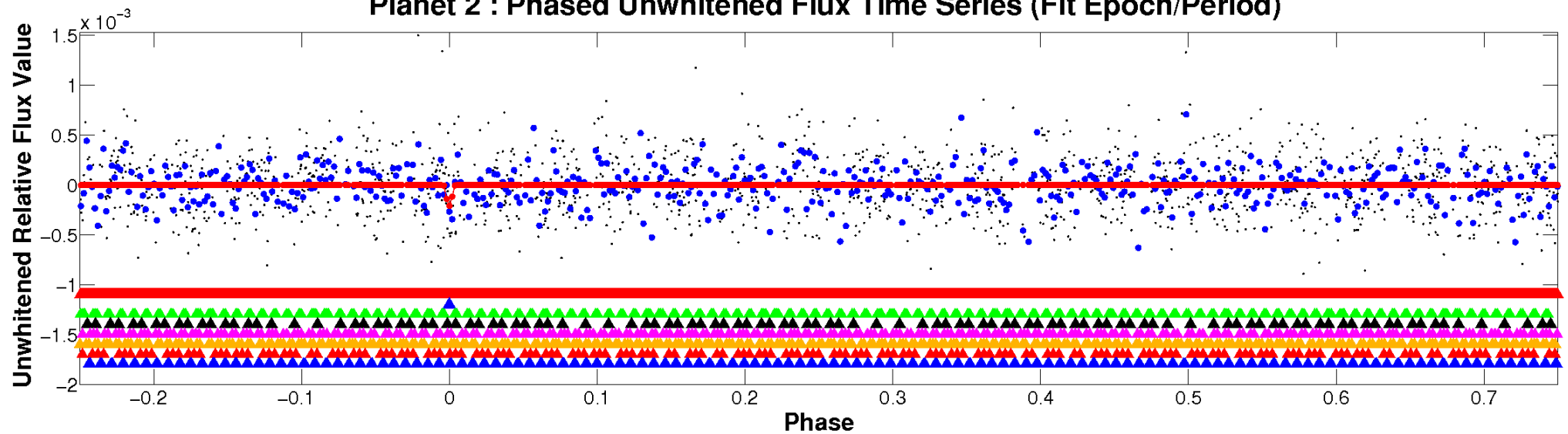


ALT Odd/Even

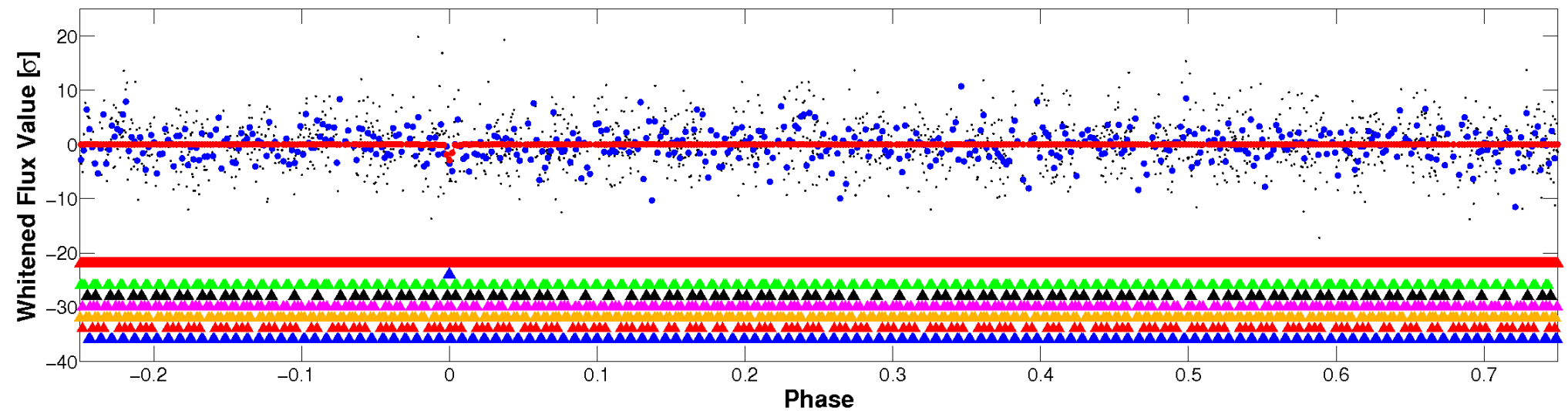
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

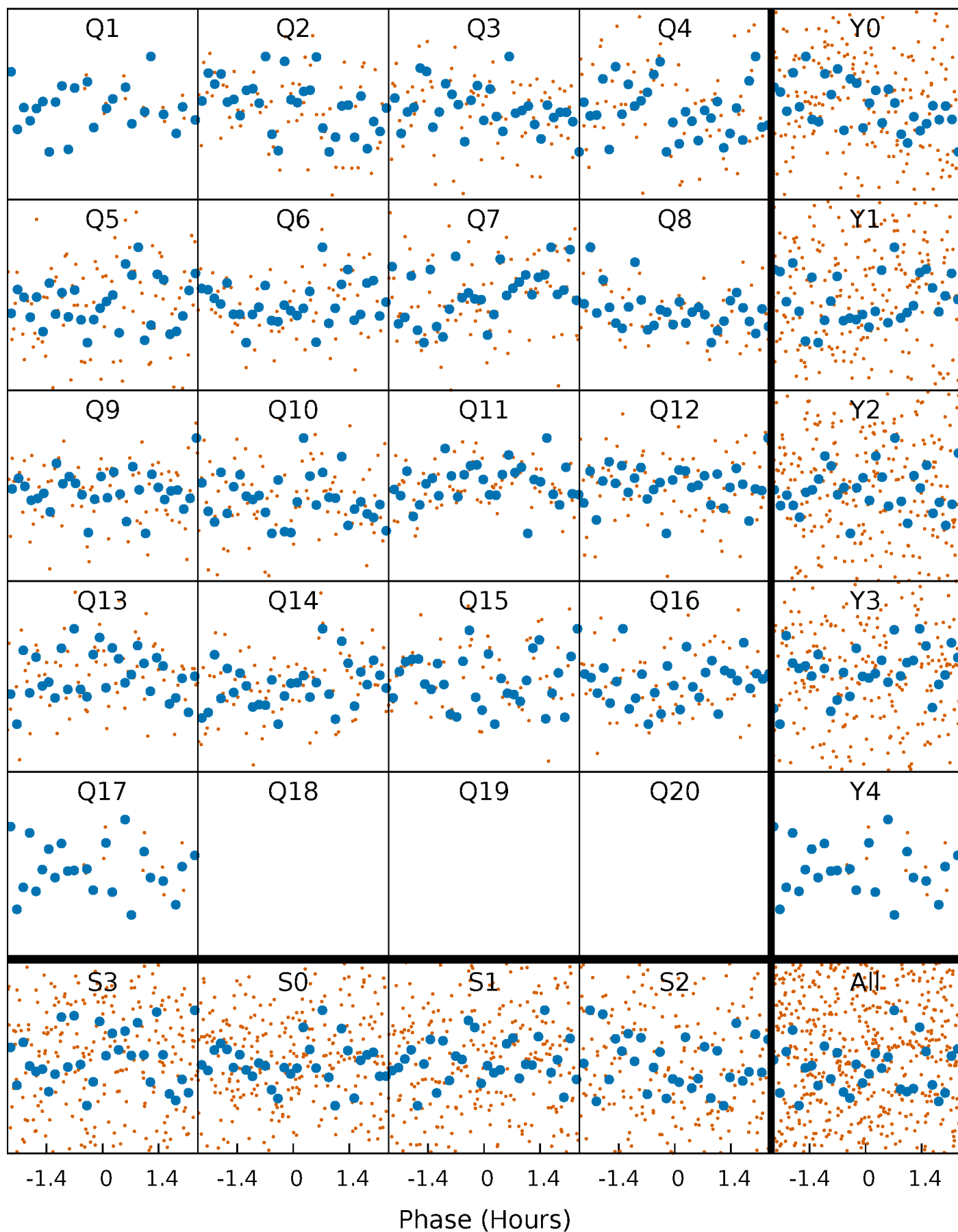


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



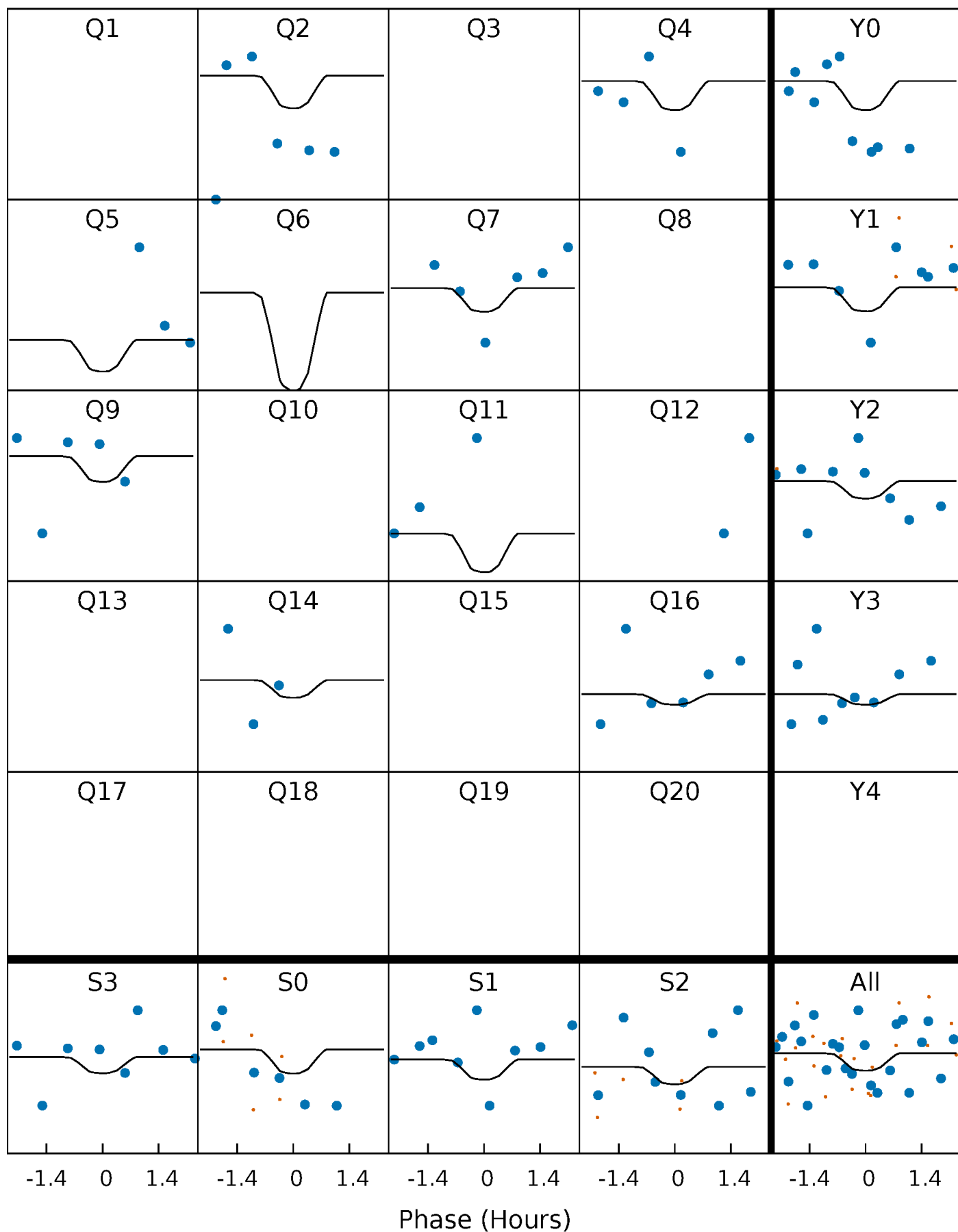
PDC Quarter-Phased Transit Curves

TCE 007281454-02 P= 10.739148 Days $T_0=137.537077$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007281454-02 P= 10.739148 Days $T_0=137.537077$ (BKJD)

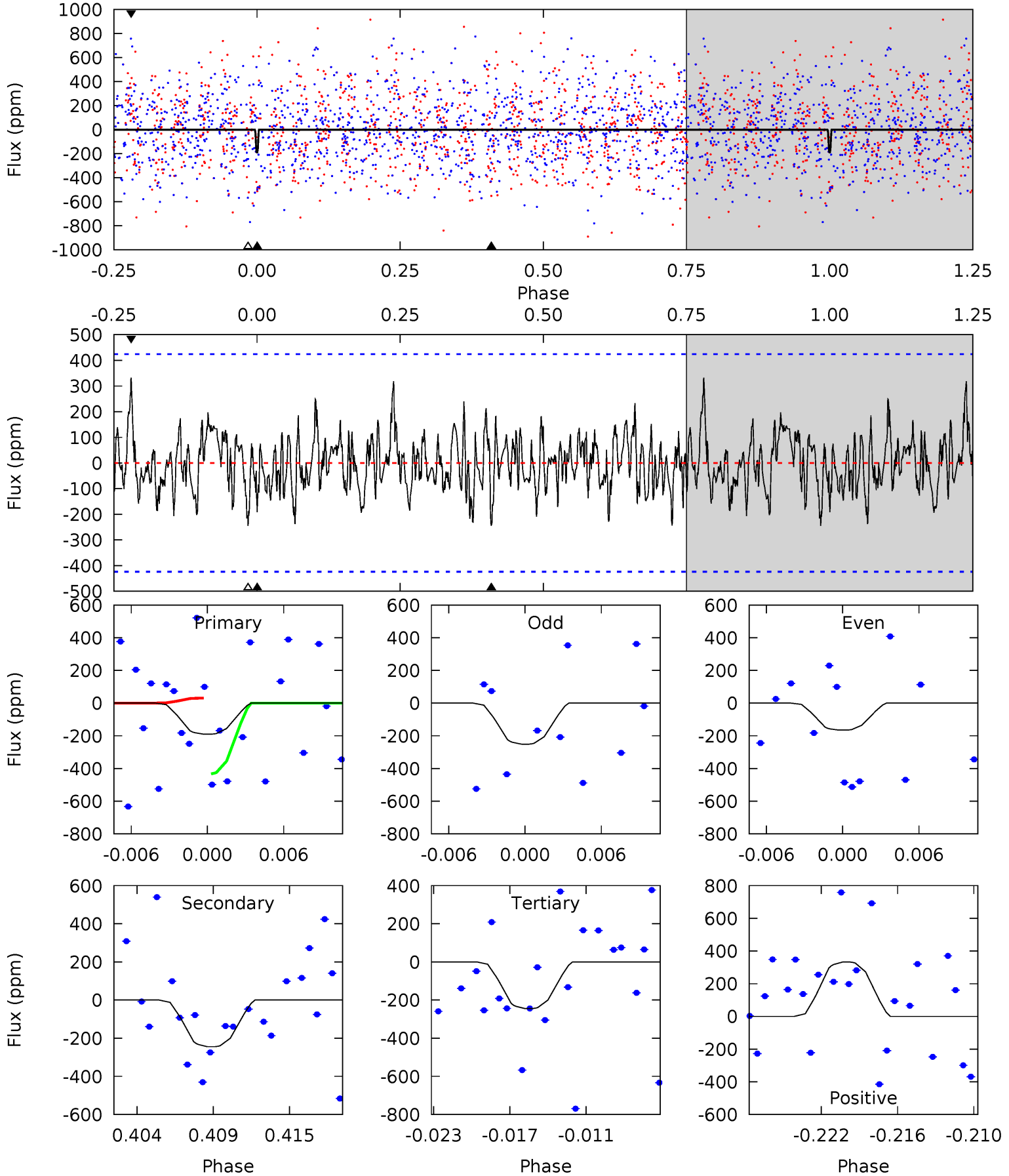


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007281454-02, P = 10.739148 Days, E = 126.797929 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.30	2.96	2.96	4.03	5.13	2.77	1.17	-0.66	-1.73	0.00	-1.07	0.52	0	0.58	2.46



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007281454

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5000^{+150}_{-150}	$4.708^{+0.049}_{-0.021}$	$-1.580^{+0.300}_{-0.250}$	$0.549^{+0.025}_{-0.030}$	$0.561^{+0.038}_{-0.017}$	$4.773^{+0.785}_{-0.461}$
	+3%/-3%	+1%/-0%	+19%/-16%	+5%/-5%	+7%/-3%	+16%/-10%
Source	PHO1	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 007281454-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-244 ± 83	$3.19^{+3.43}_{-2.08}$	809^{+27}_{-25}	3217^{+1403}_{-612}	79^{+559}_{-61}
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

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

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

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

DV Centroid Data

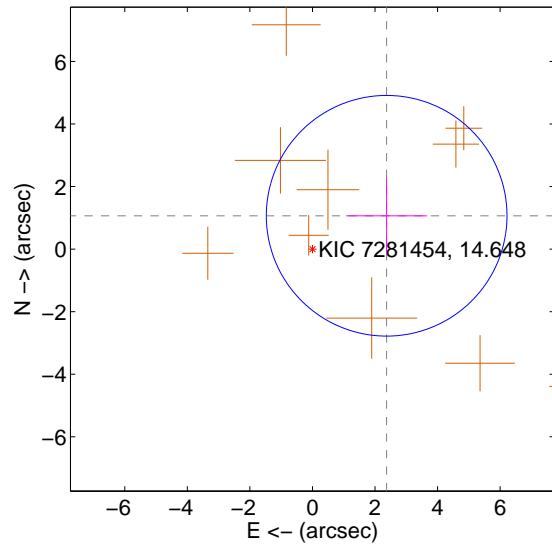
Supplemental centroid analysis for 007281454-02. Kepler magnitude: 14.65. Transit SNR 7.75

There are 0 quarters with good PRF difference image offsets

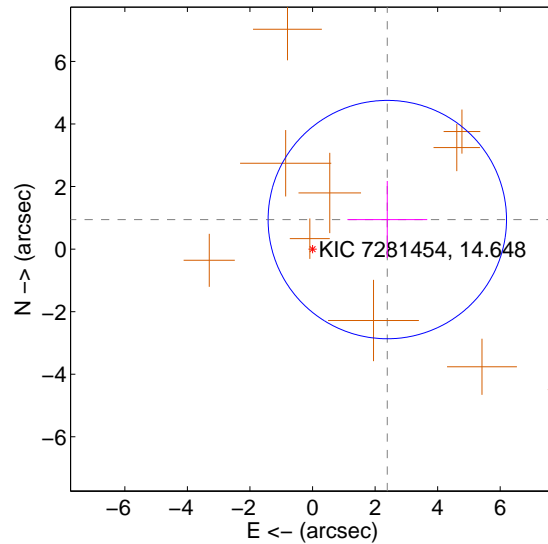
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.601 ± 1.283	2.03	-2.373 ± 1.293	1.066 ± 1.230
PRF-fit source offset from KIC position	2.571 ± 1.270	2.02	-2.391 ± 1.276	0.944 ± 1.232
photometric centroid source offset	0.47 ± 1.16	0.40	0.23 ± 1.18	-0.41 ± 1.15

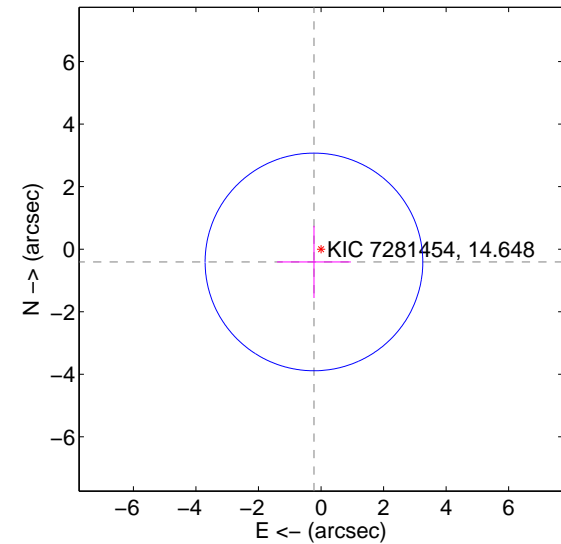
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

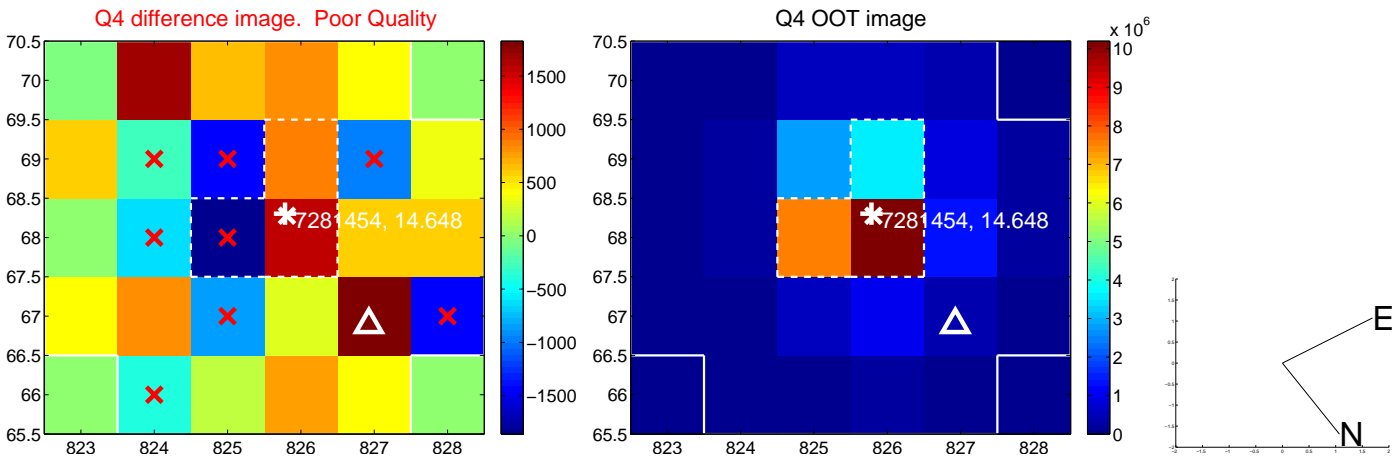
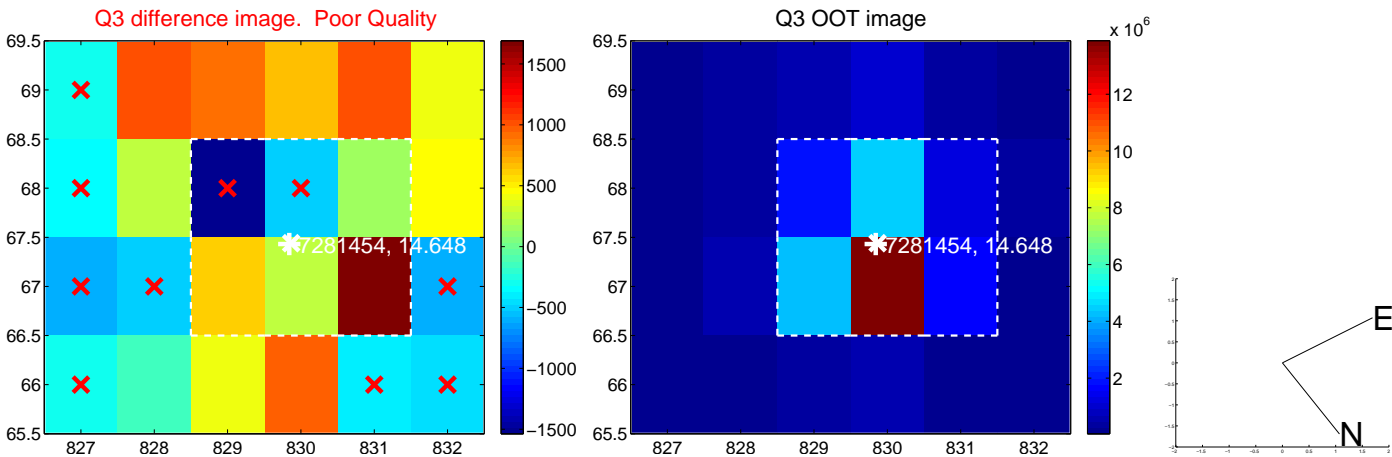
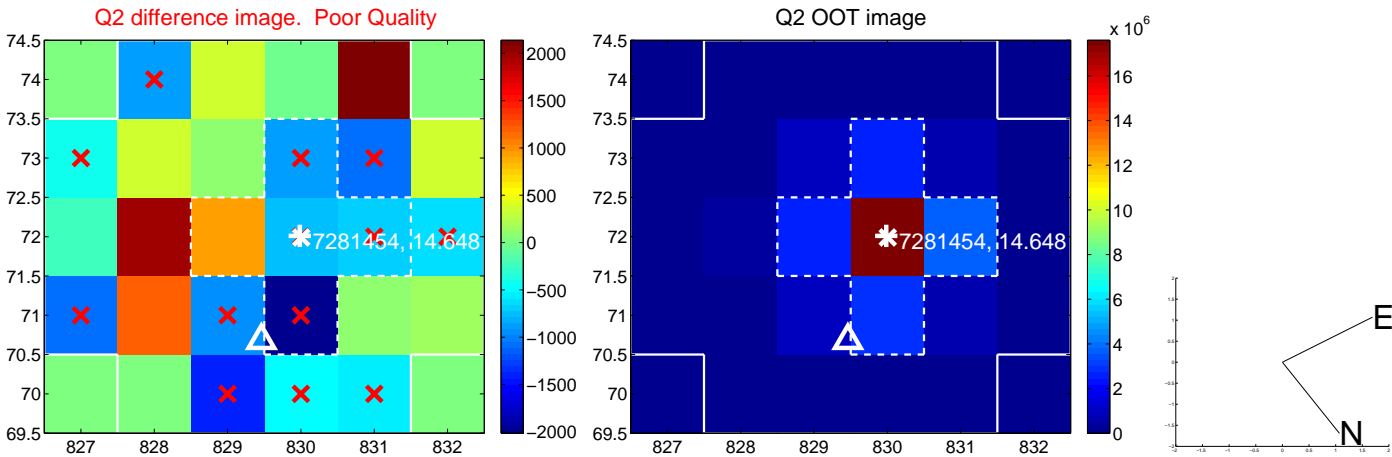
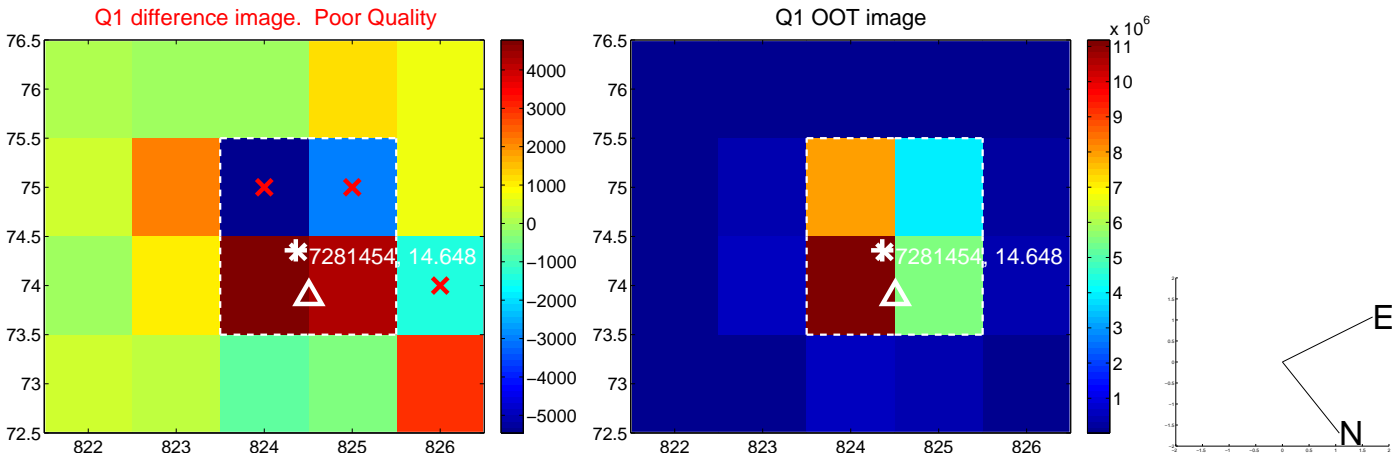


offset from photometric centroids

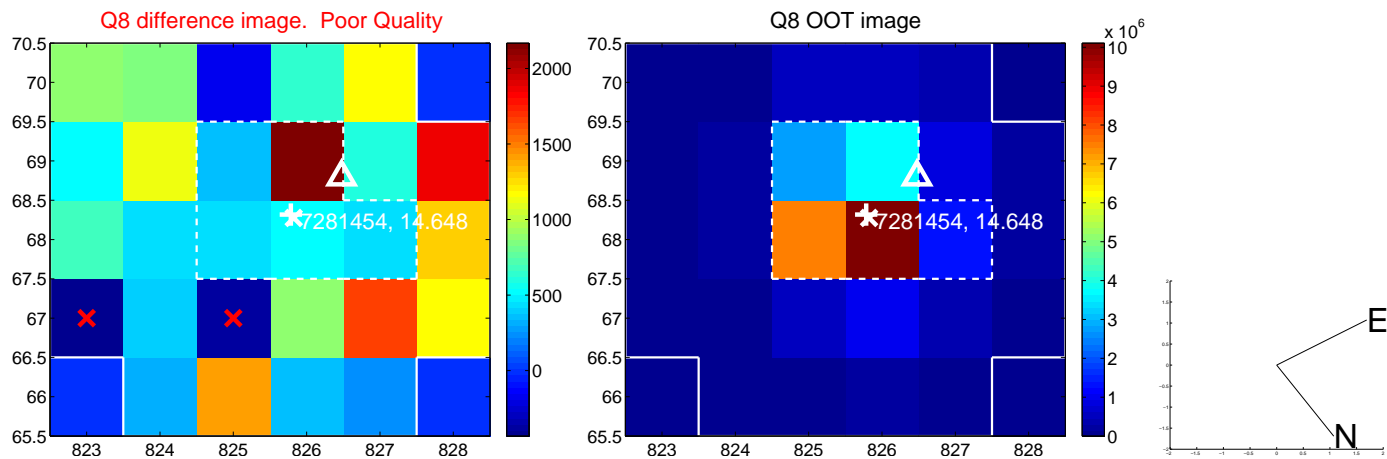
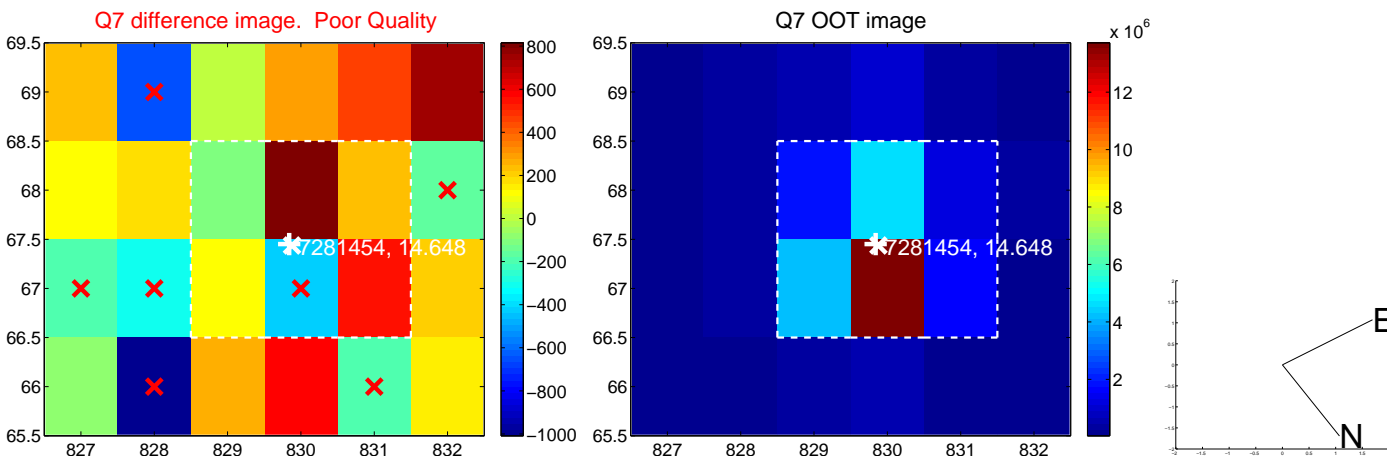
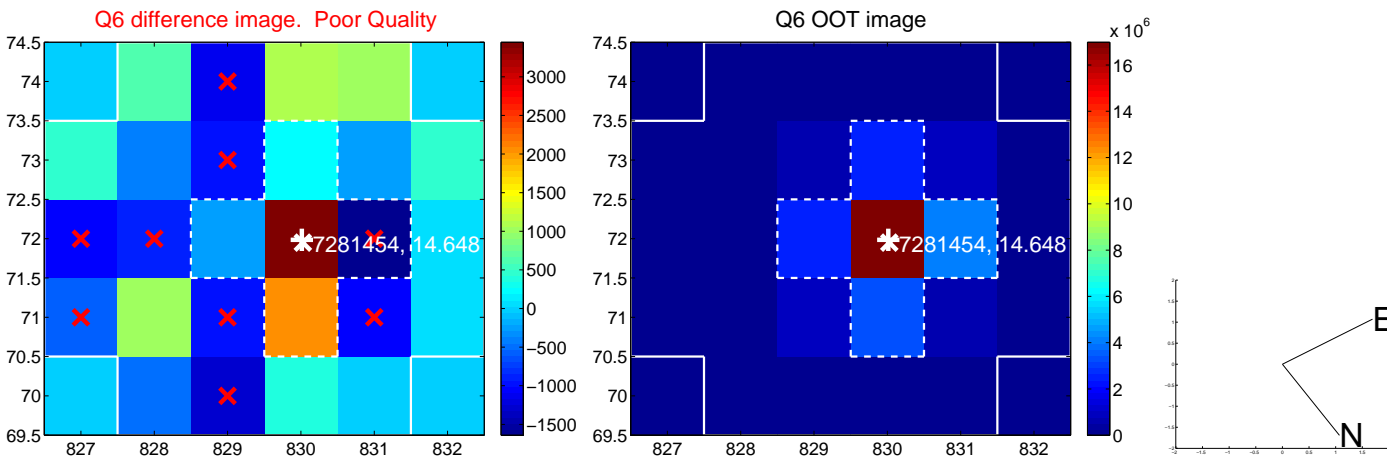
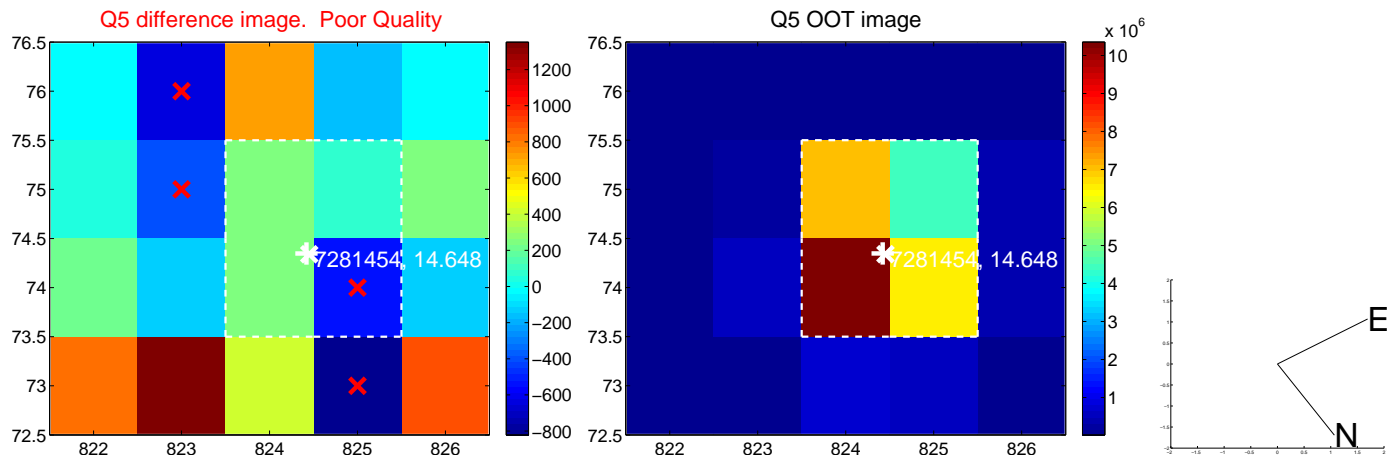


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

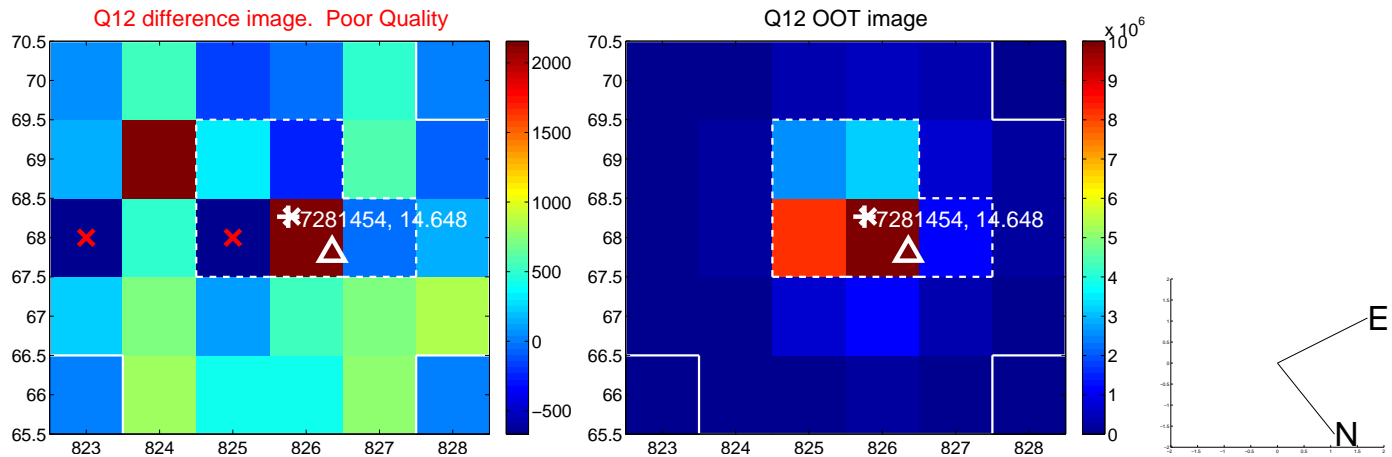
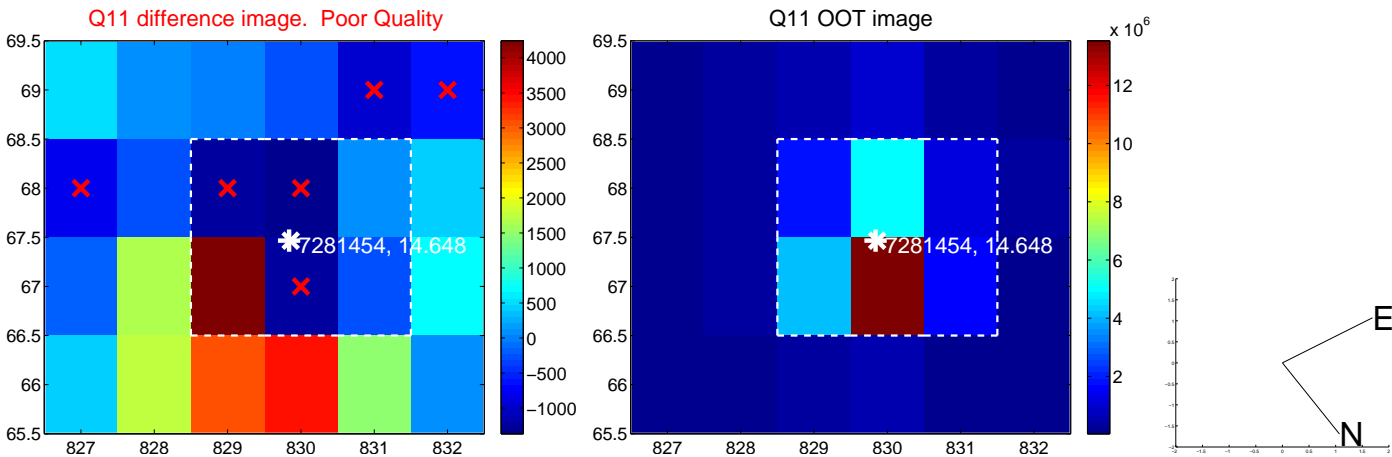
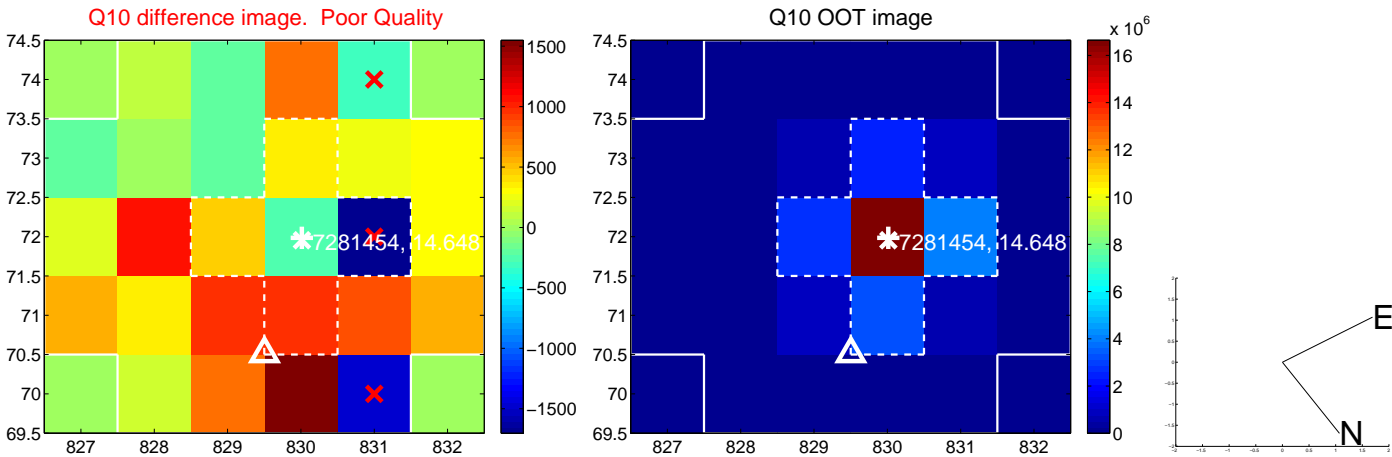
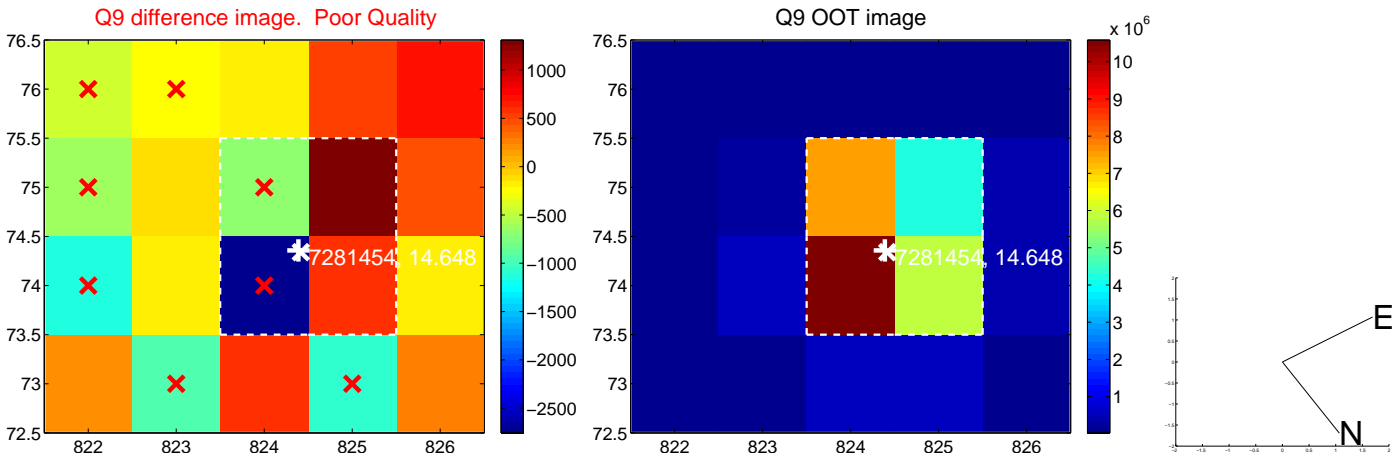
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



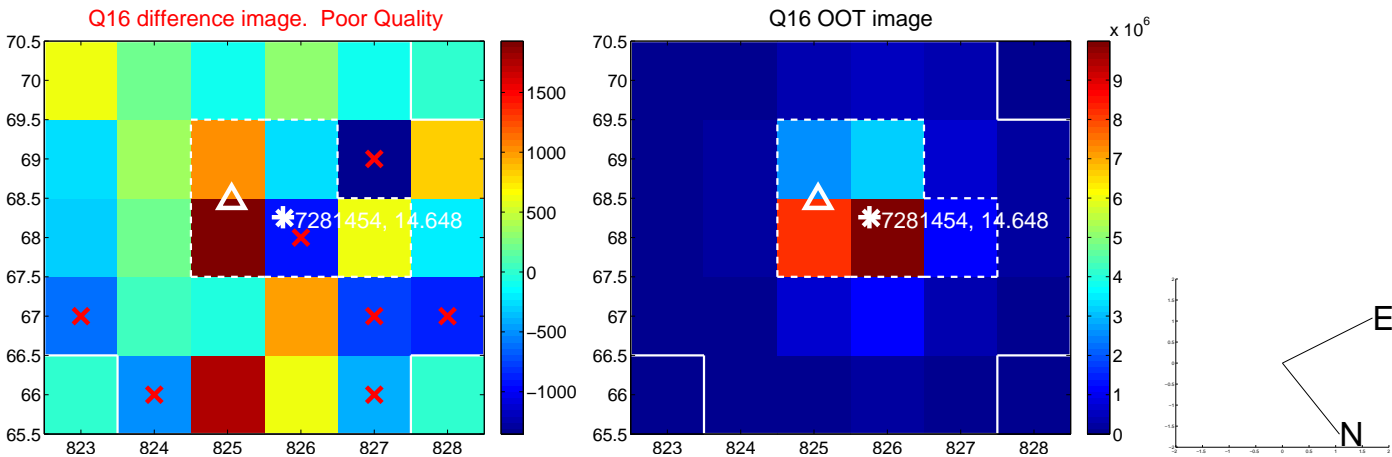
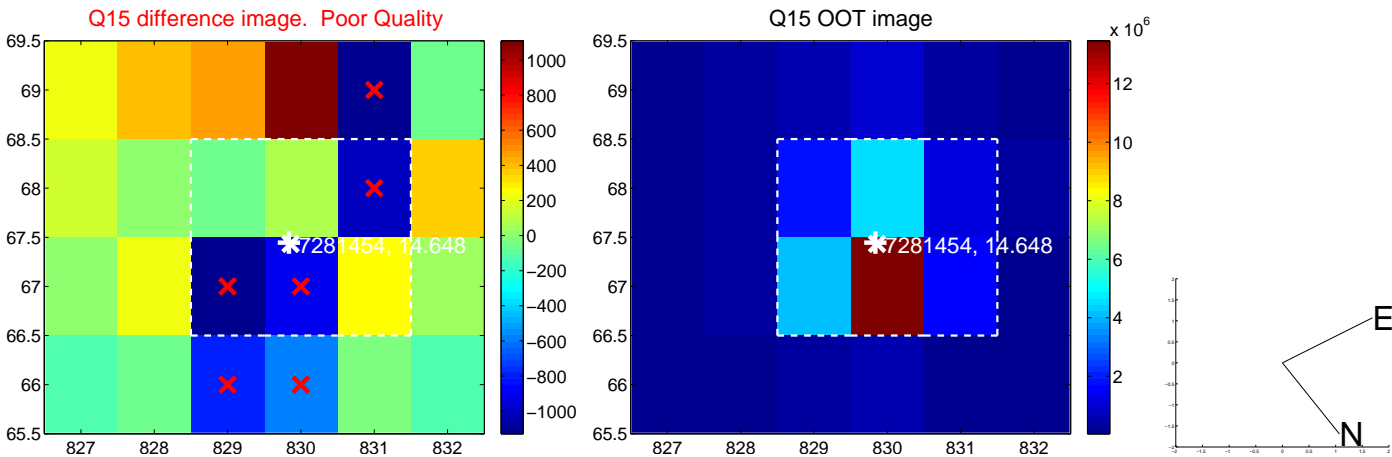
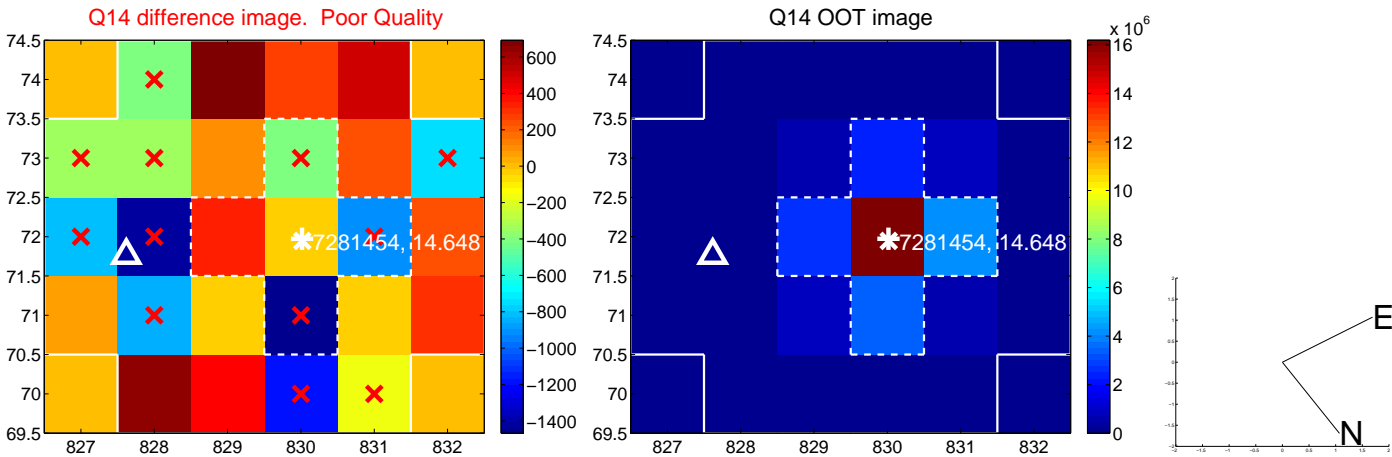
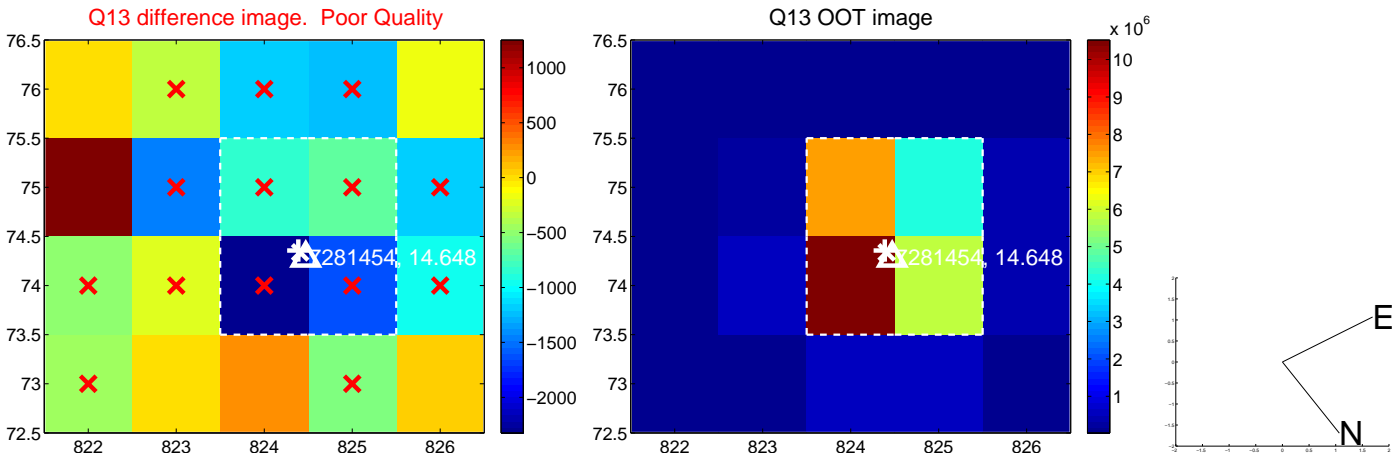
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



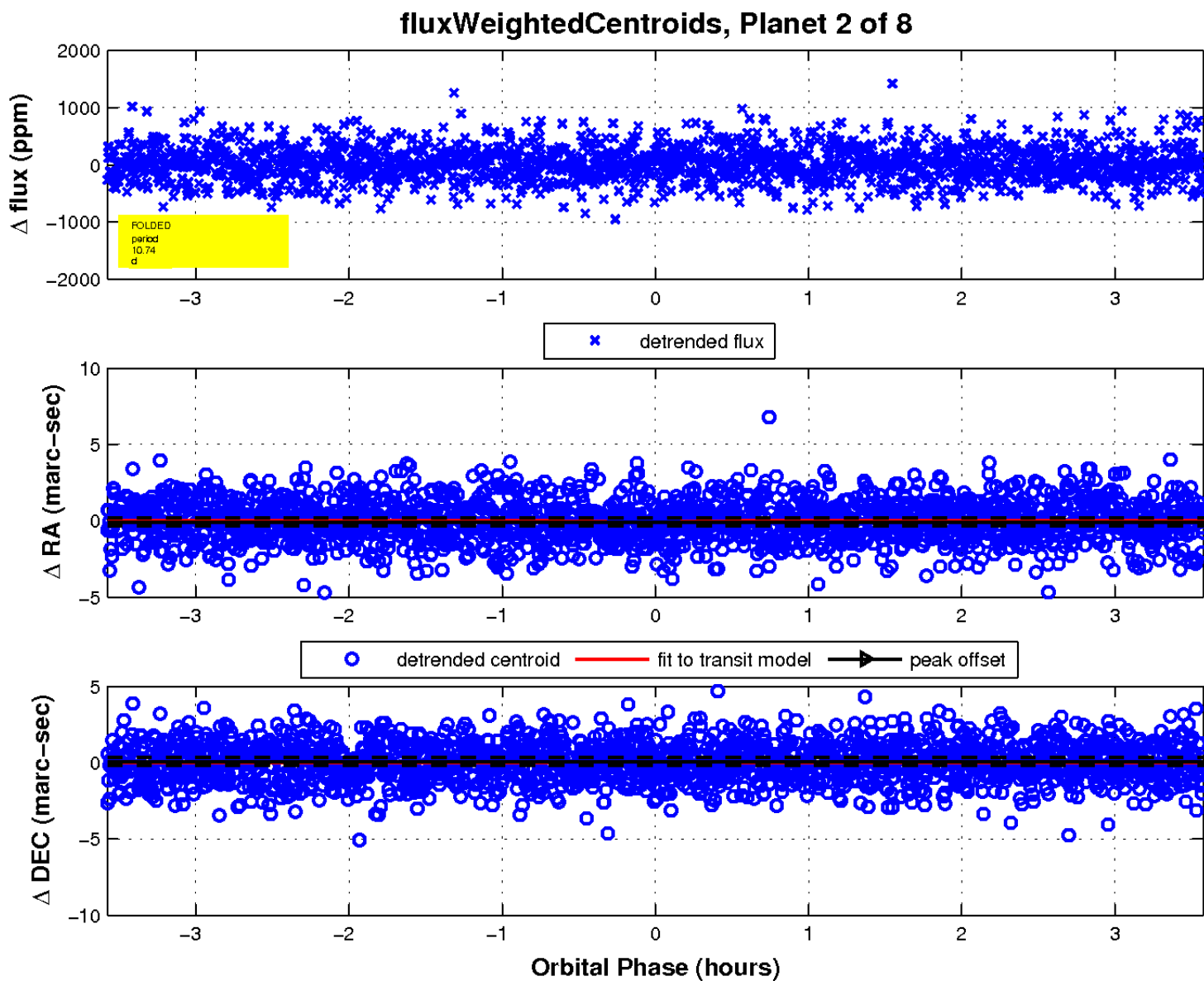
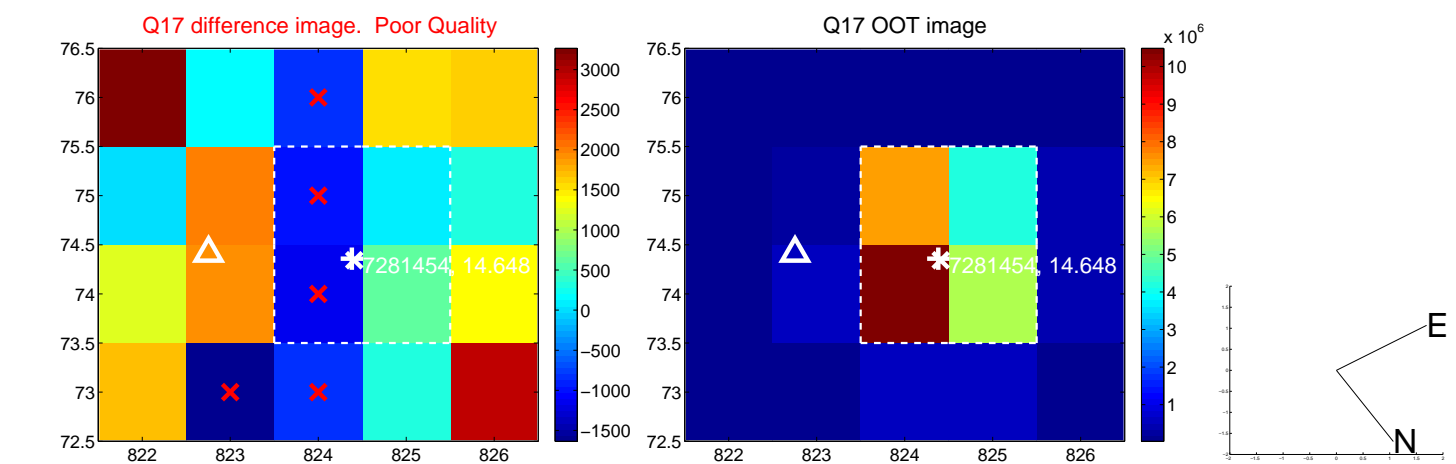
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

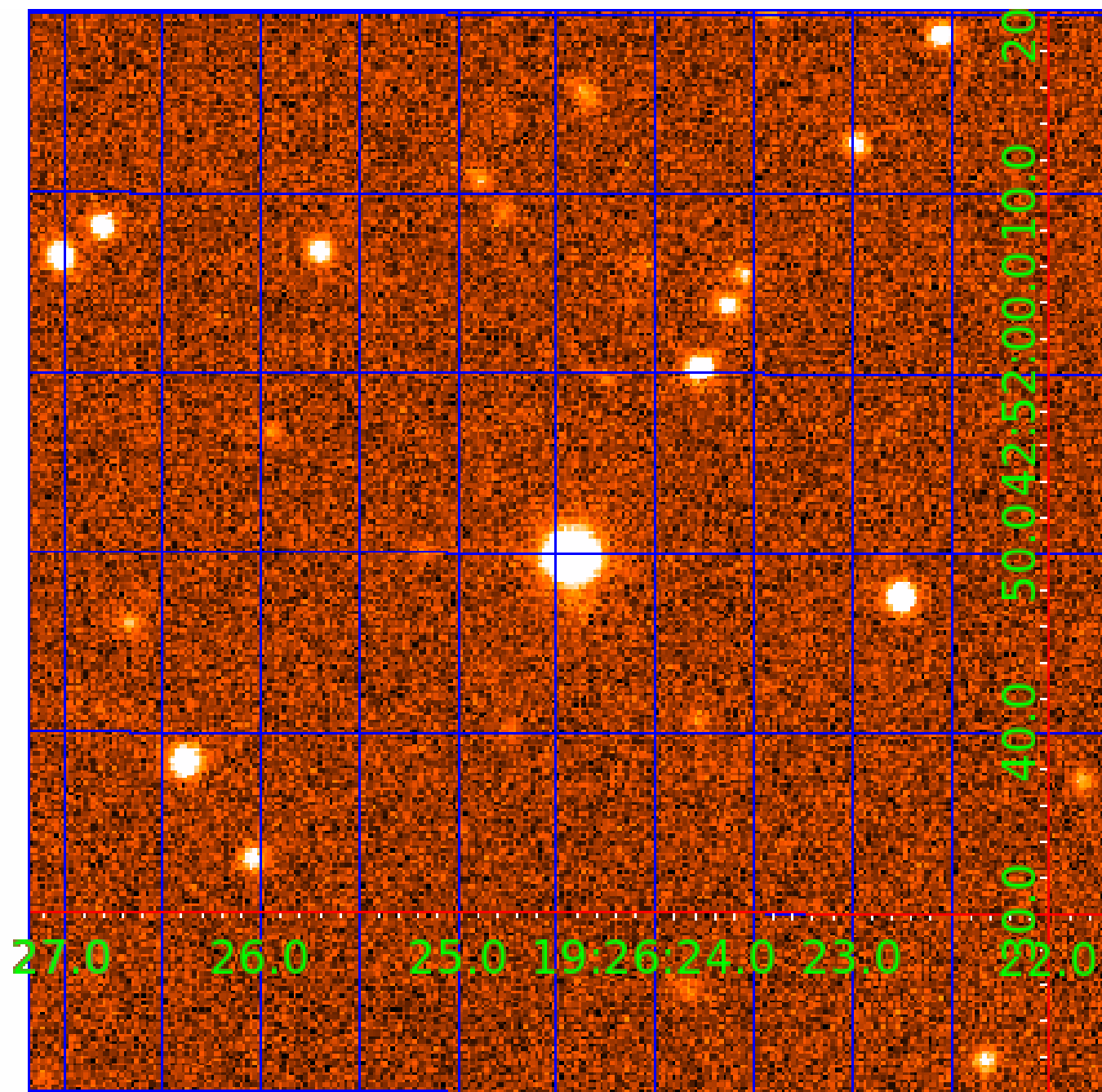


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007281454

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})
007281454-01	OBS	3055.01	0.566695	131.938748	8.1	4.252	10.4	3.0	0.55	5000	0.16	1380.46
007281454-02	OBS	No	10.739148	137.537077	210.7	1.193	11.1	7.7	0.55	5000	0.85	27.32
007281454-03	OBS	No	5.789677	133.205705	680.8	0.712	15.0	17.3	0.55	5000	1.46	62.27
007281454-04	OBS	No	12.853532	142.647659	818.3	0.545	12.5	20.2	0.55	5000	1.65	21.50
007281454-05	OBS	No	5.276778	131.556097	412.6	0.736	14.5	15.6	0.55	5000	1.17	70.47
007281454-06	OBS	No	4.369578	134.114310	246.7	0.943	12.5	12.0	0.55	5000	0.87	90.62
007281454-07	OBS	No	8.141625	136.843060	217.1	1.522	13.5	8.9	0.55	5000	0.81	39.52
007281454-08	OBS	No	3.770951	134.193884	109.6	0.575	8.4	4.0	0.55	5000	0.61	110.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007281454-01	OBS	FP	0.00	1	0	0	1	LPP_DV—EPHEM_MATCH
007281454-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
007281454-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007281454-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007281454-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007281454-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007281454-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV
007281454-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

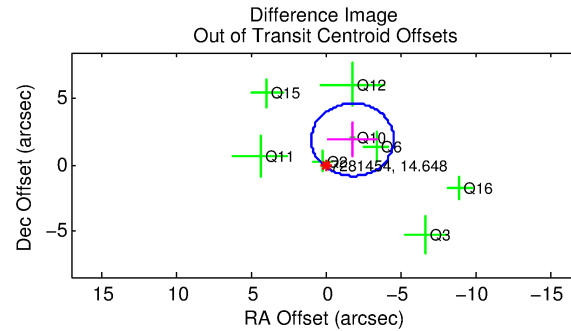
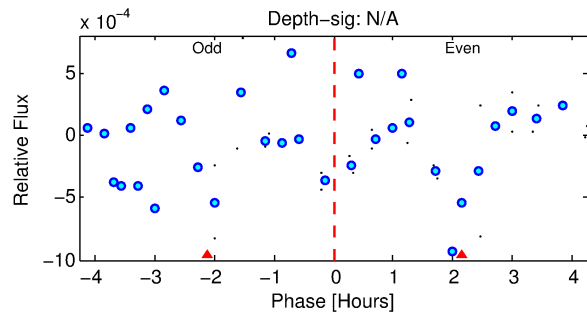
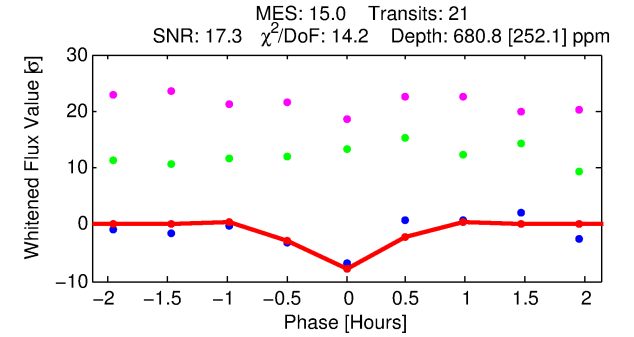
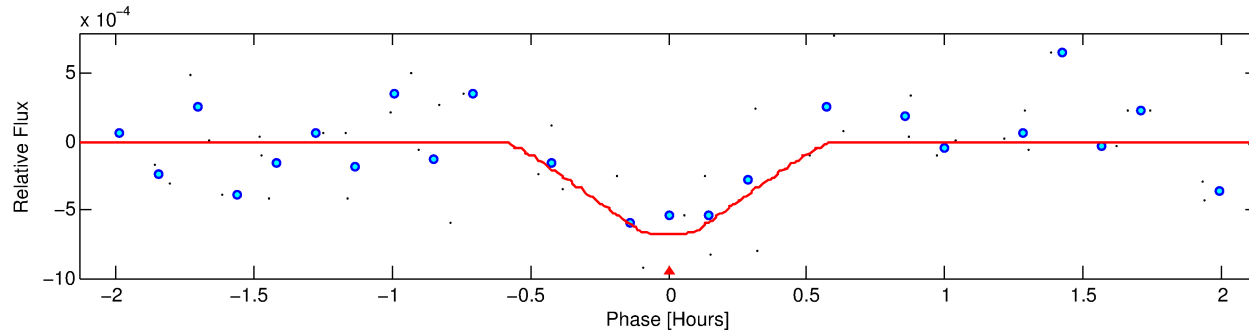
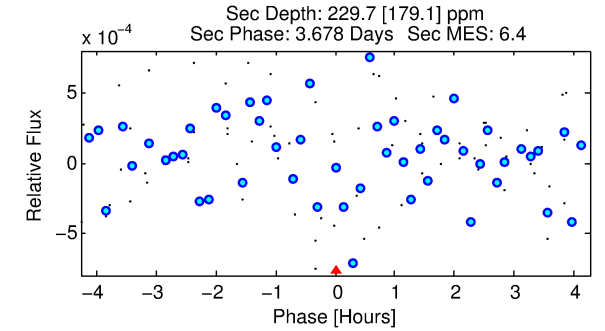
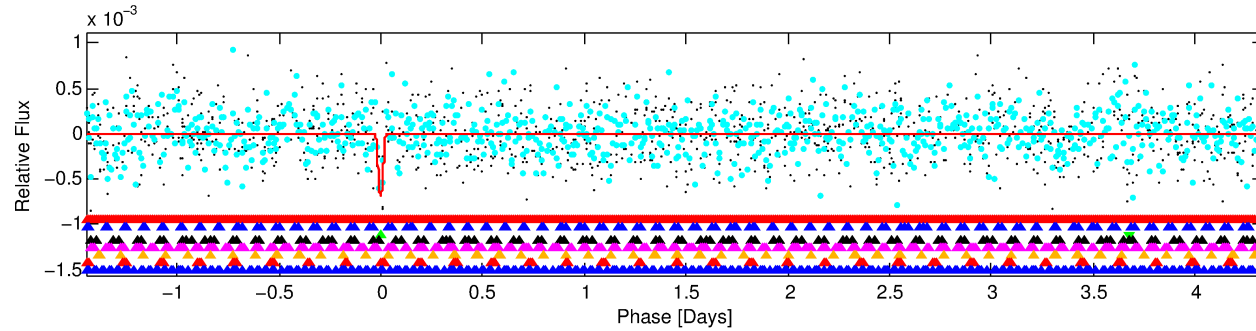
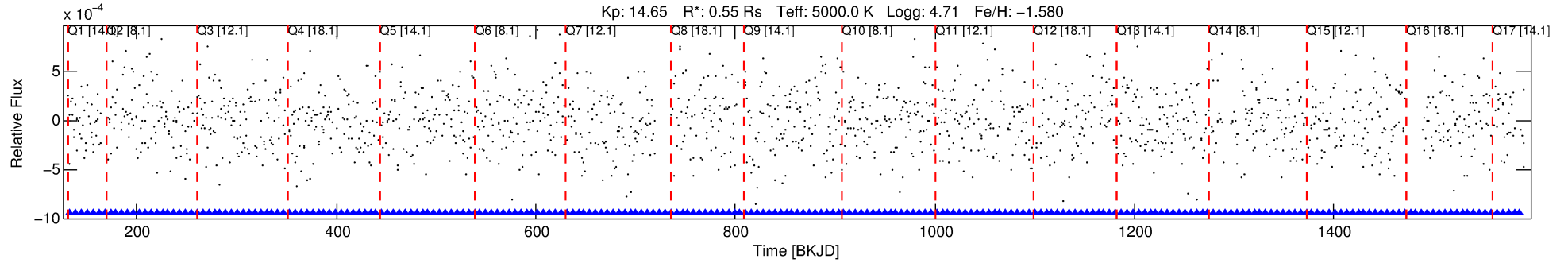
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007281454-03

No Significant Match Found

DV One-Page Summary

KIC: 7281454 Candidate: 3 of 8 Period: 5.790 d
KOI: K03055 Corr: No Ephemeris Match



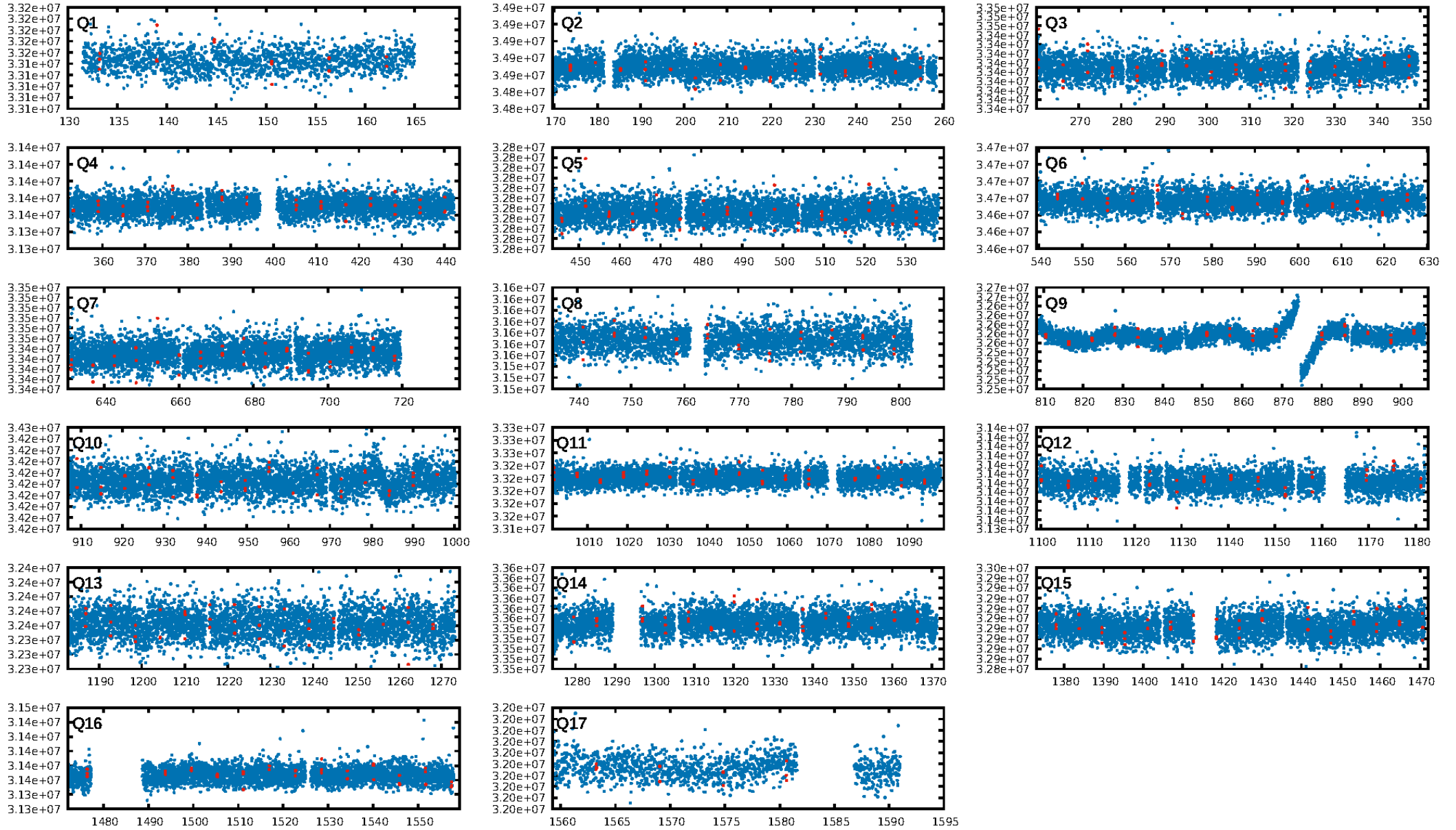
DV Fit Results:

Period = 5.78968 [0.00005] d
Epoch = 133.2057 [0.0055] BKJD
Rp/R* = 0.0243 [0.1104]
a/R* = 63.39 [1355.71]
b = 0.09 [232.35]
Seff = 62.27 [9.11]
Teff = 716 [26] K
Rp = 1.46 [6.61] Re
a = 0.0521 [0.0027] AU
Ag = 161.76 [1475.51] [0.11σ]
Teffp = 3950 [9007] K [0.36σ]

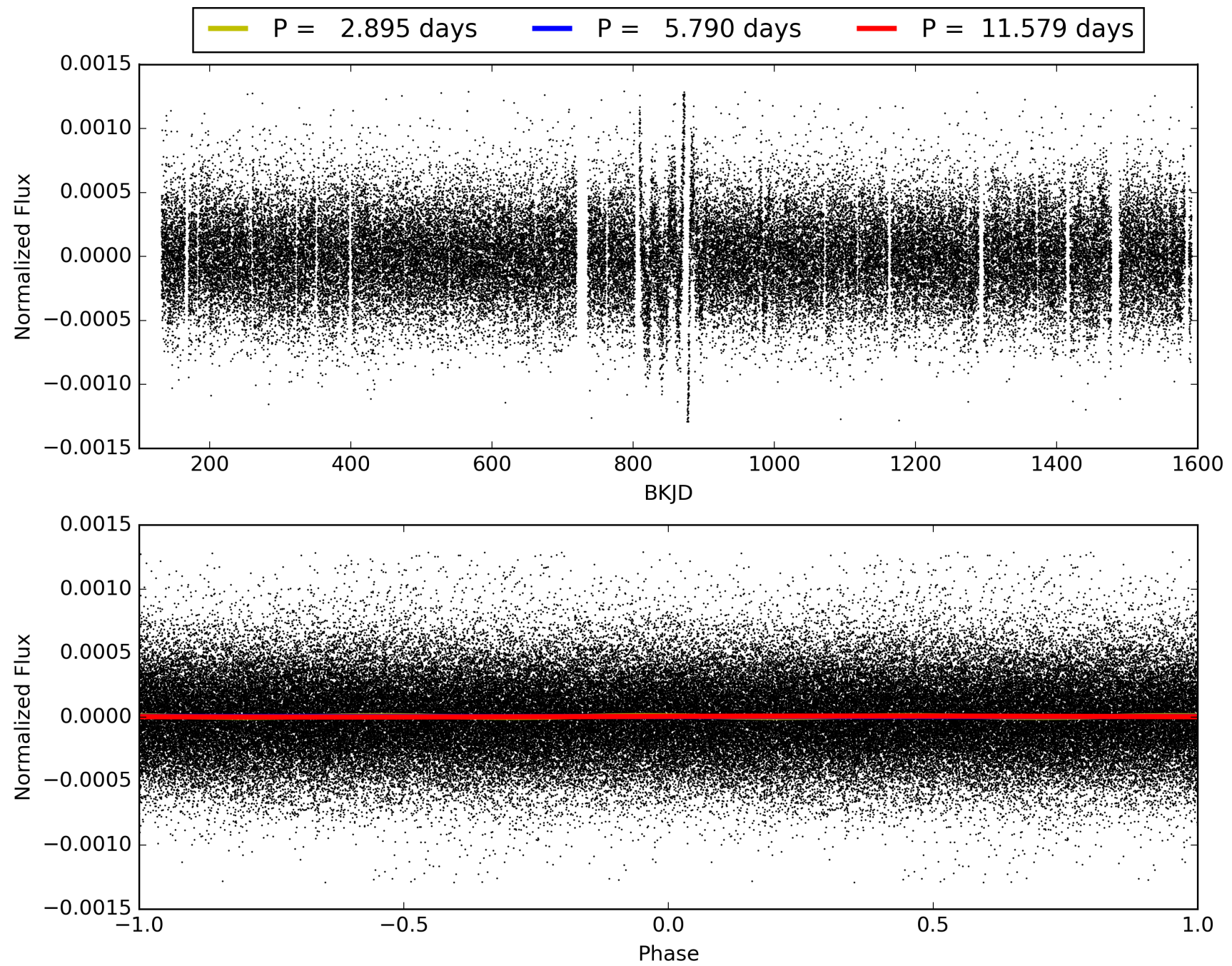
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [12.03σ]
LongPeriod-sig: 100.0% [33.59σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: 1.30e-08
RollingBand-fgt: 1.00 [21/21]
GhostDiagnostic-chr: 0.496
Centroid-sig: 76.6%
Centroid-so: 0.076 arcsec [0.21σ]
OotOffset-rm: 2.617 arcsec [2.85σ]
KicOffset-rm: 2.503 arcsec [2.98σ]
OotOffset-st: 3/3/2/0 [8]
KicOffset-st: 3/3/2/0 [8]
DiffImageQuality-fgm: 0.12 [1/8]
DiffImageOverlap-fno: 0.00 [0/17]

TCE 007281454-03, PDC Light Curves

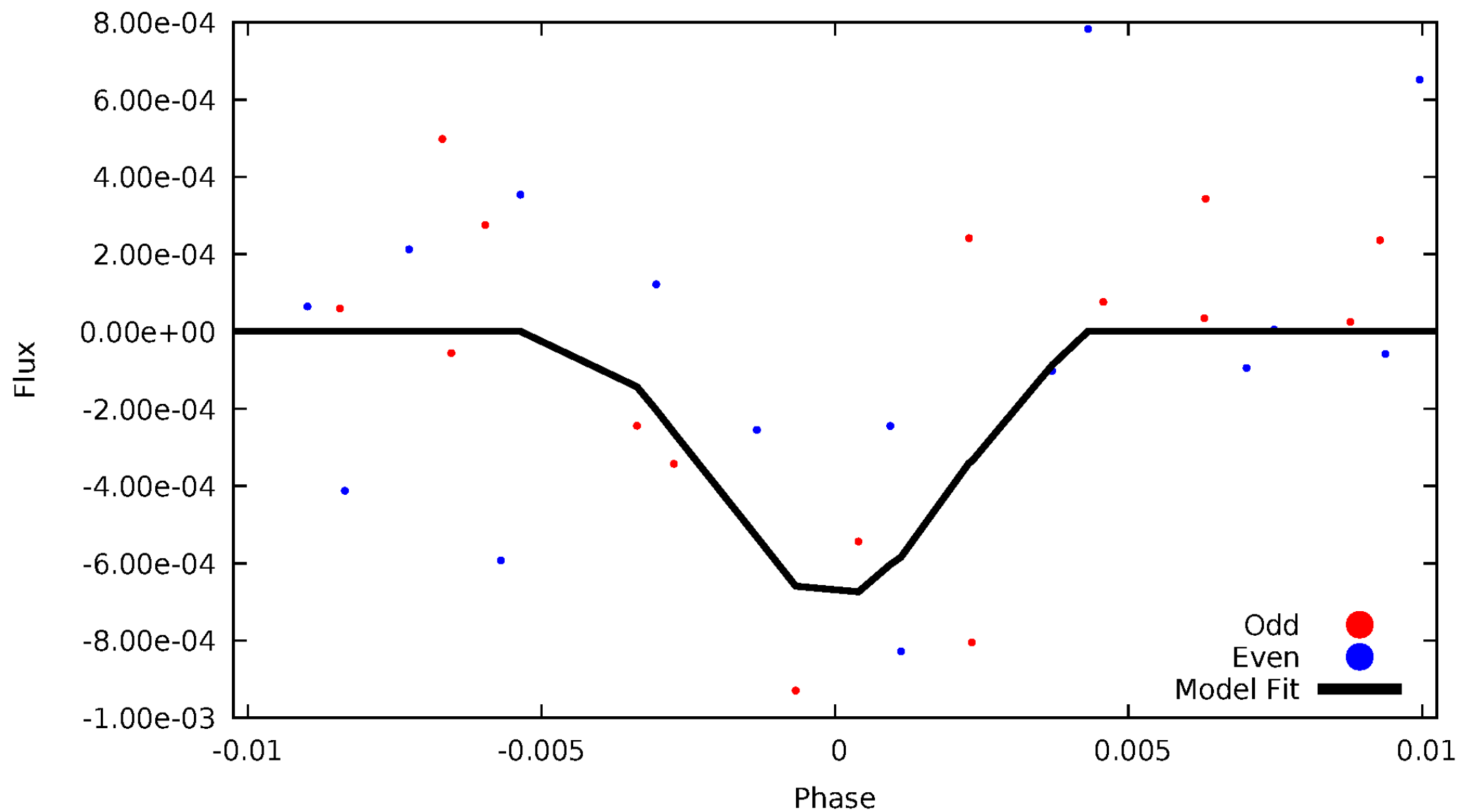


TCE 007281454-03



DV Odd/Even

TCE 007281454-03

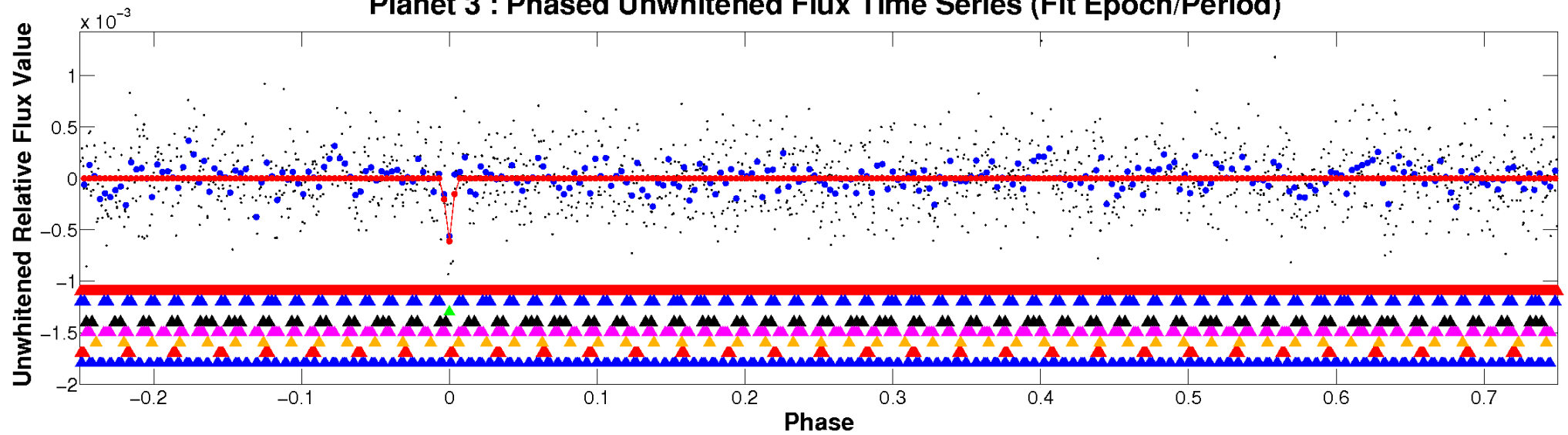


ALT Odd/Even

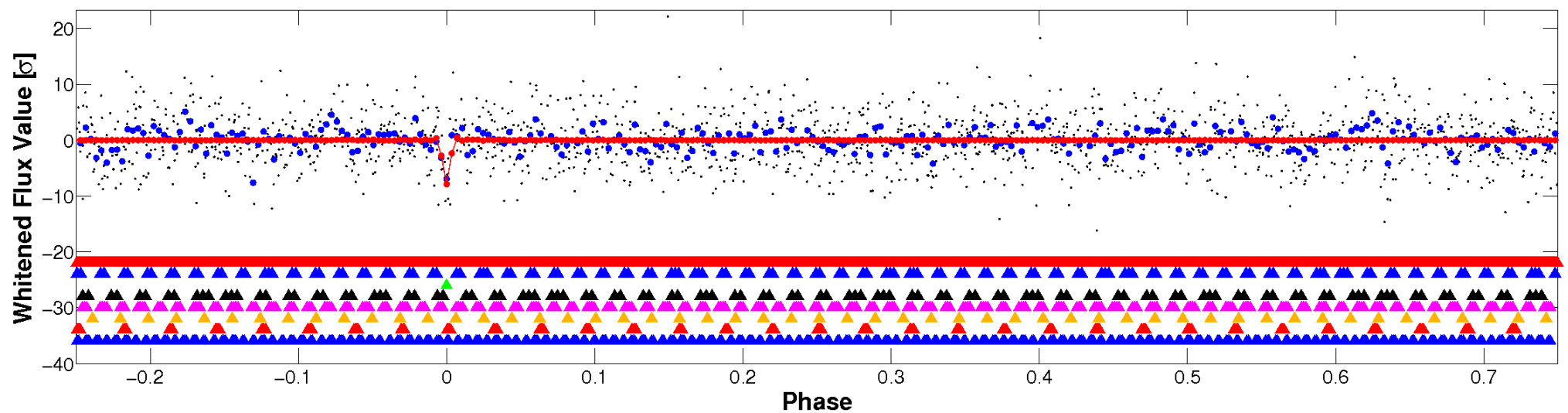
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

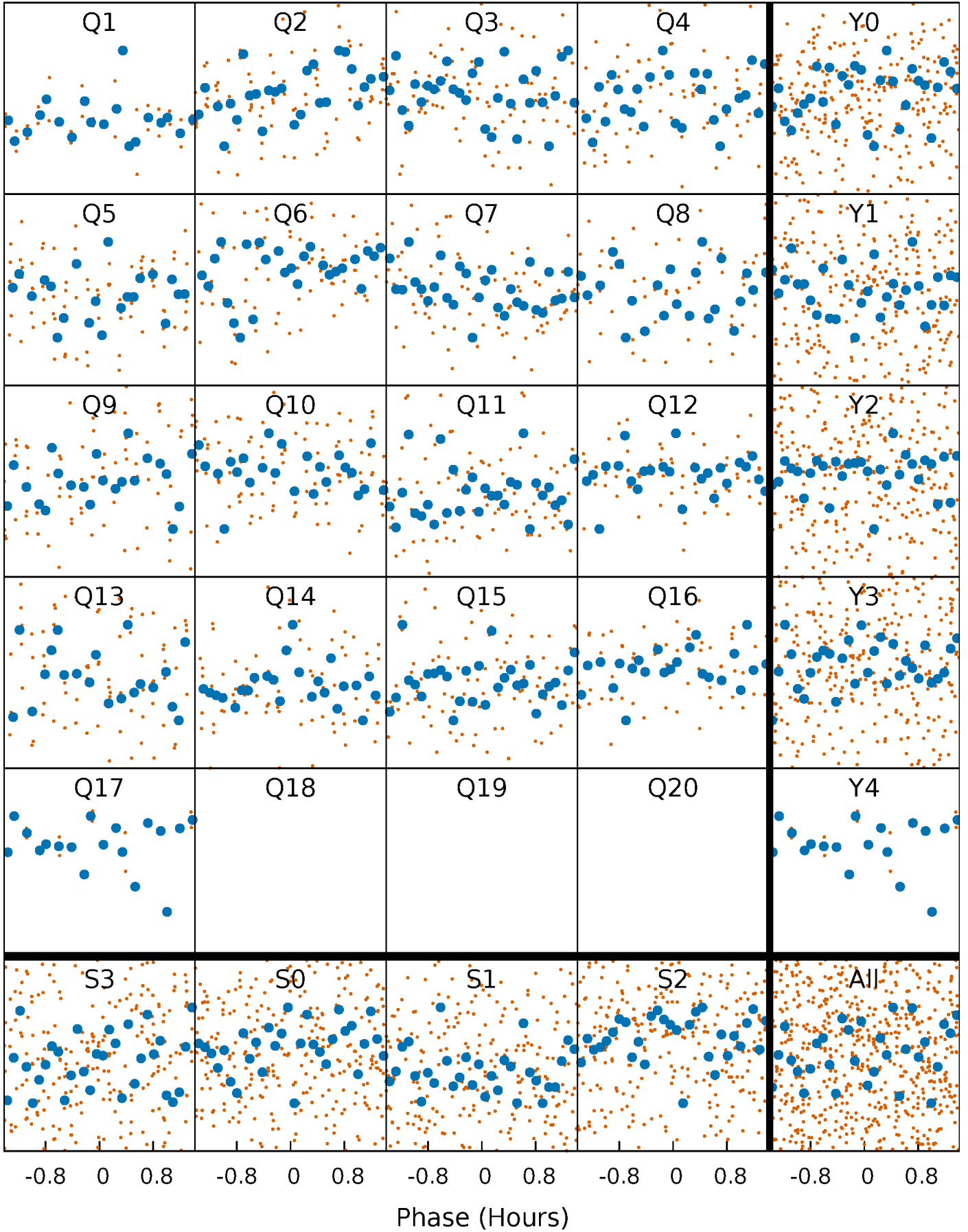


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



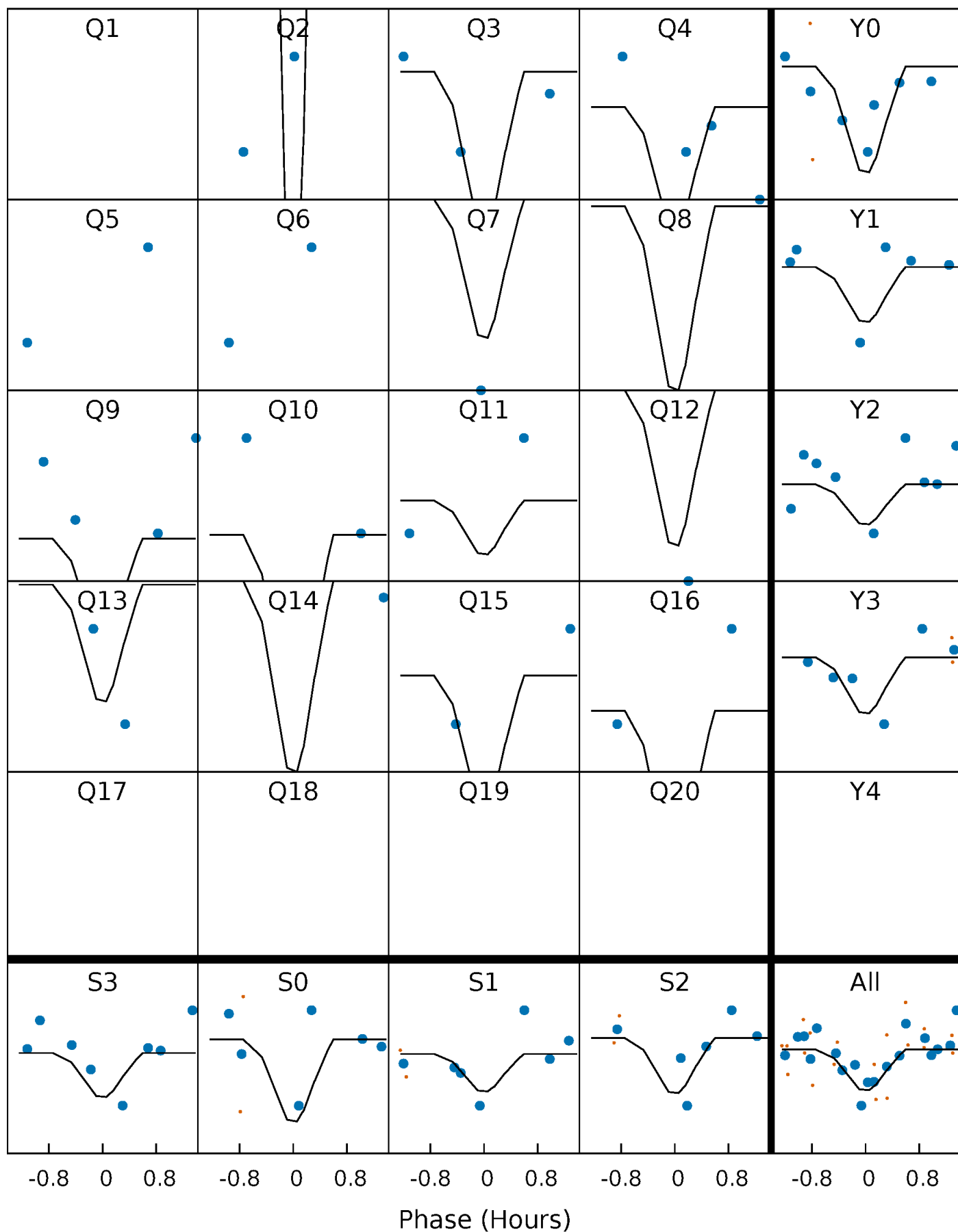
PDC Quarter-Phased Transit Curves

TCE 007281454-03 P= 5.789677 Days $T_0=133.205705$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007281454-03 P= 5.789677 Days $T_0=133.205705$ (BKJD)

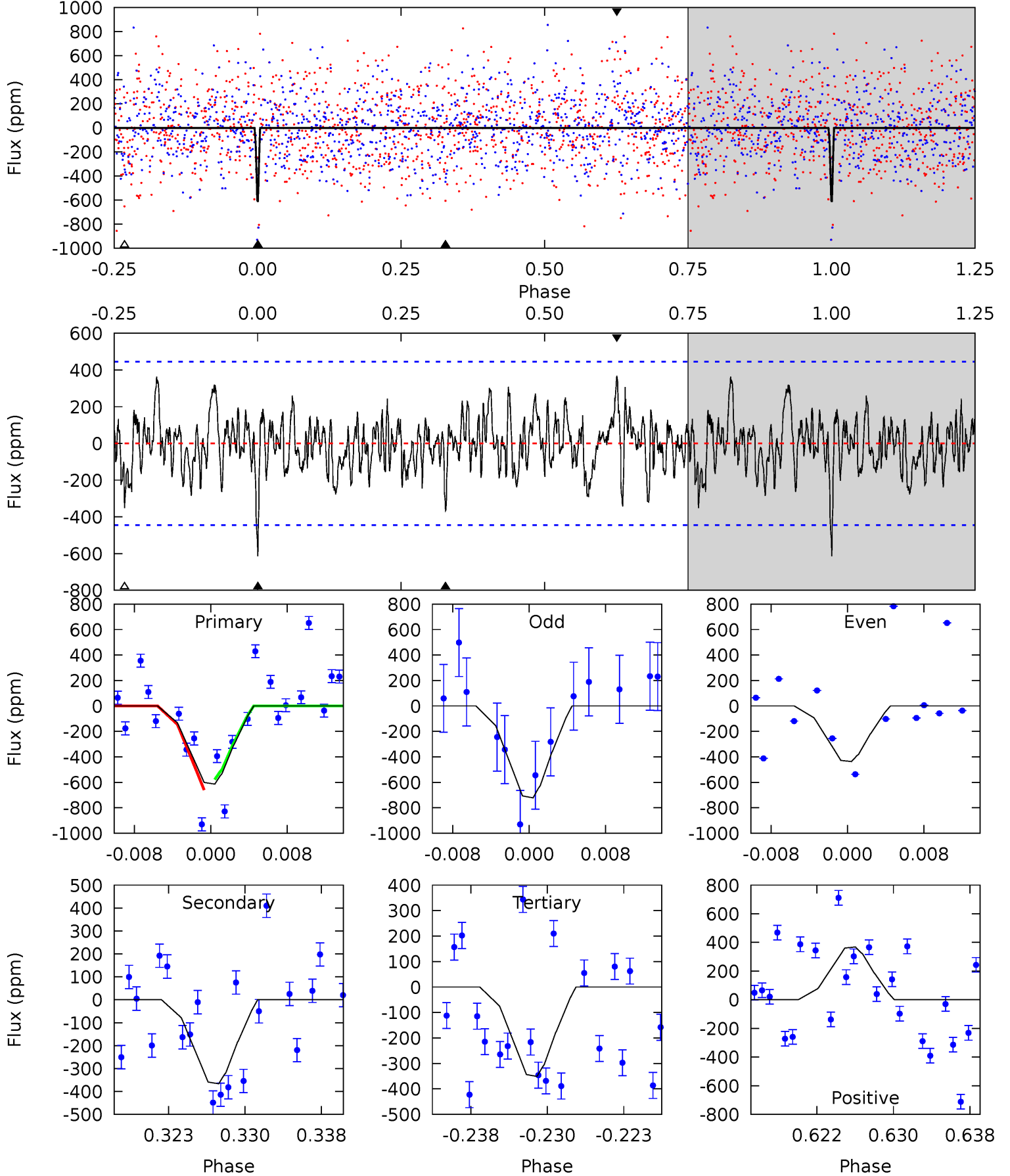


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007281454-03, P = 5.789677 Days, E = 127.416028 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.00	4.18	4.01	4.20	5.08	2.67	1.41	3.00	2.80	0.18	-0.02	1.64	0	0.38	0.46



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007281454

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5000^{+150}_{-150}	$4.708^{+0.049}_{-0.021}$	$-1.580^{+0.300}_{-0.250}$	$0.549^{+0.025}_{-0.030}$	$0.561^{+0.038}_{-0.017}$	$4.773^{+0.785}_{-0.461}$
	+3%/-3%	+1%/-0%	+19%/-16%	+5%/-5%	+7%/-3%	+16%/-10%
Source	PHO1	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 007281454-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-367 ± 88	$5.02^{+5.18}_{-3.54}$	995^{+36}_{-34}	3001^{+1500}_{-558}	22^{+224}_{-17}
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

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

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

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

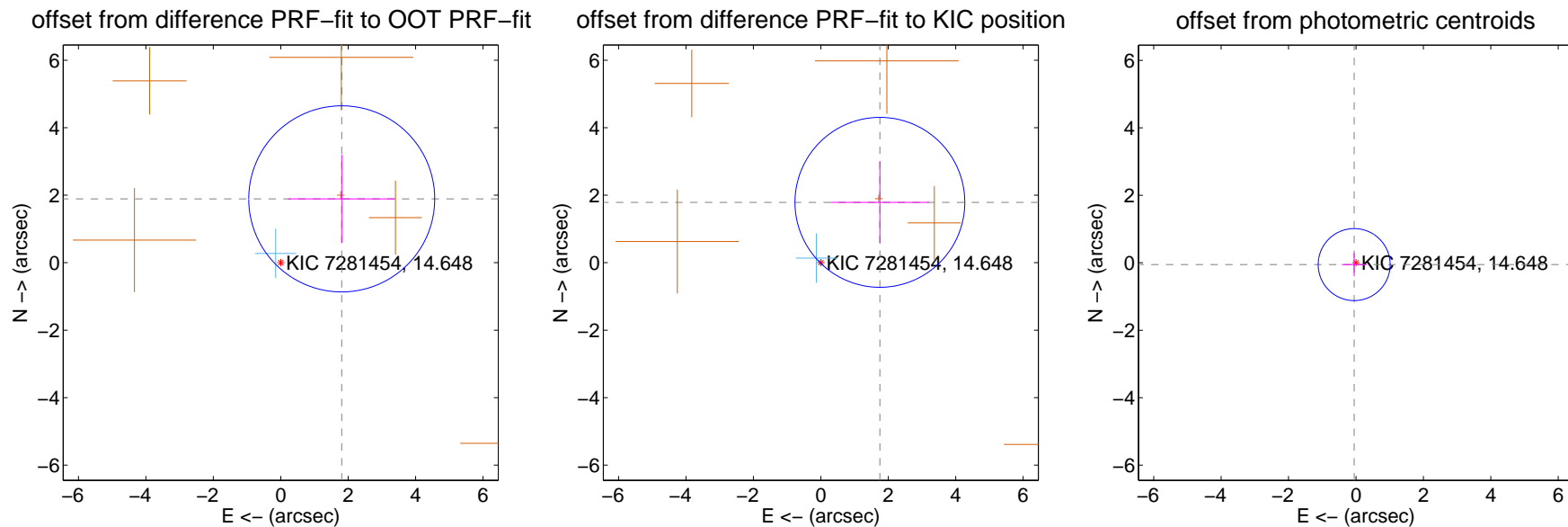
DV Centroid Data

Supplemental centroid analysis for 007281454-03. Kepler magnitude: 14.65. Transit SNR 17.27

There are 1 quarters with good PRF difference image offsets

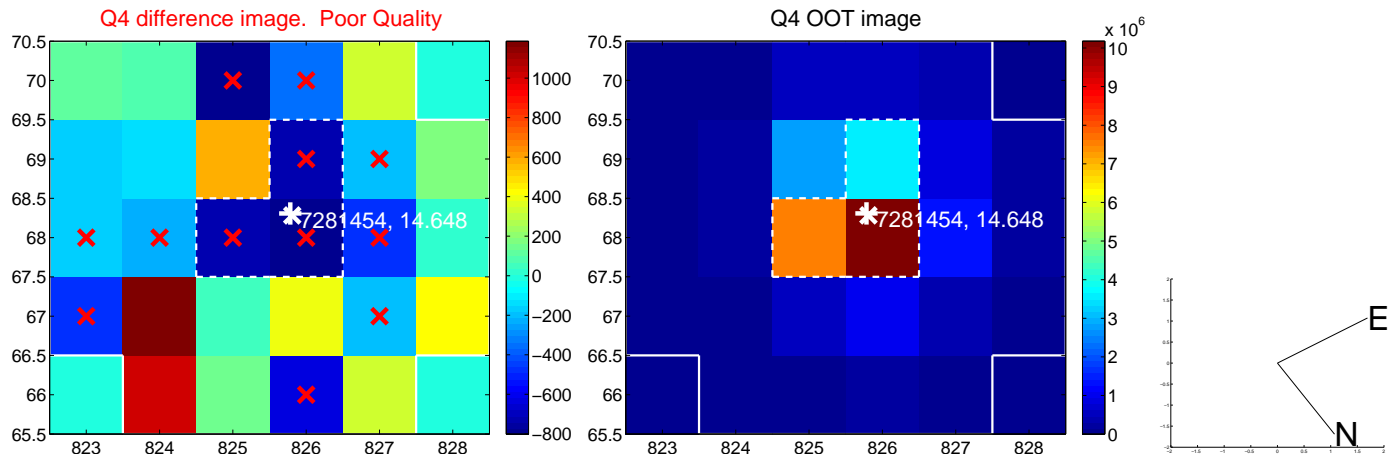
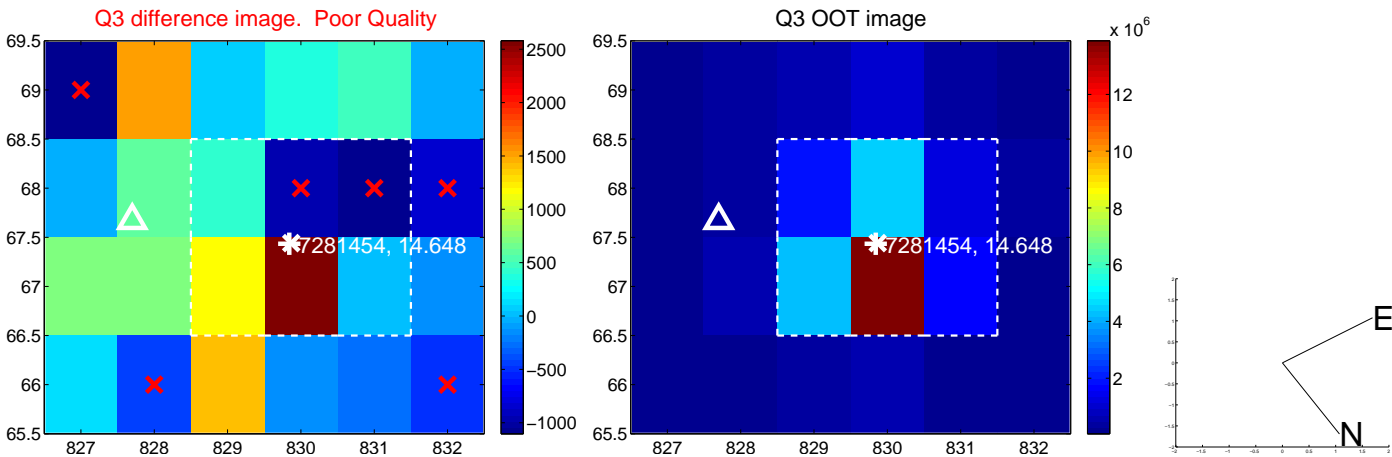
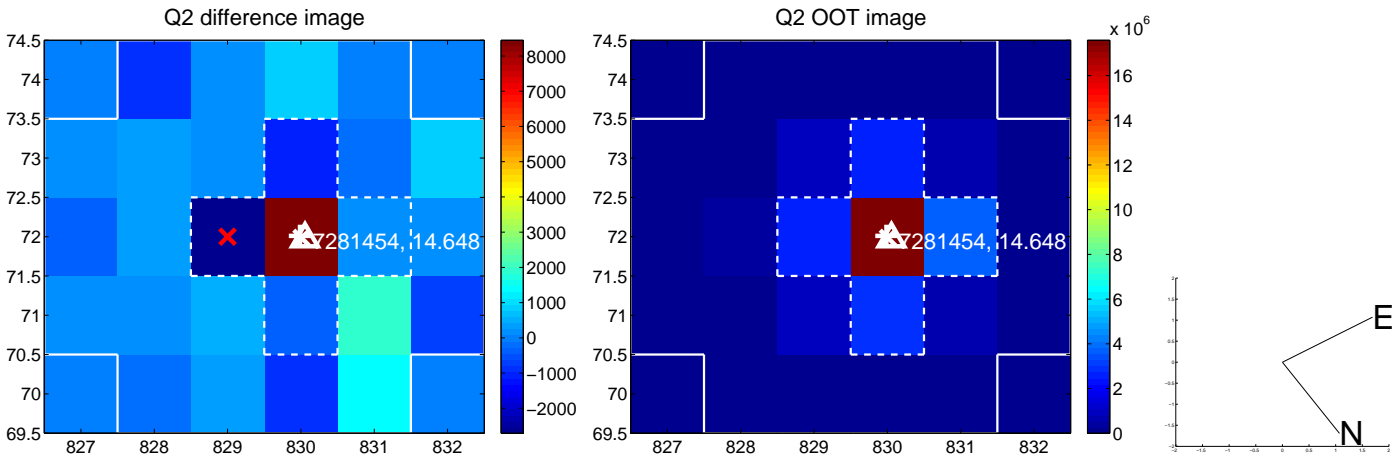
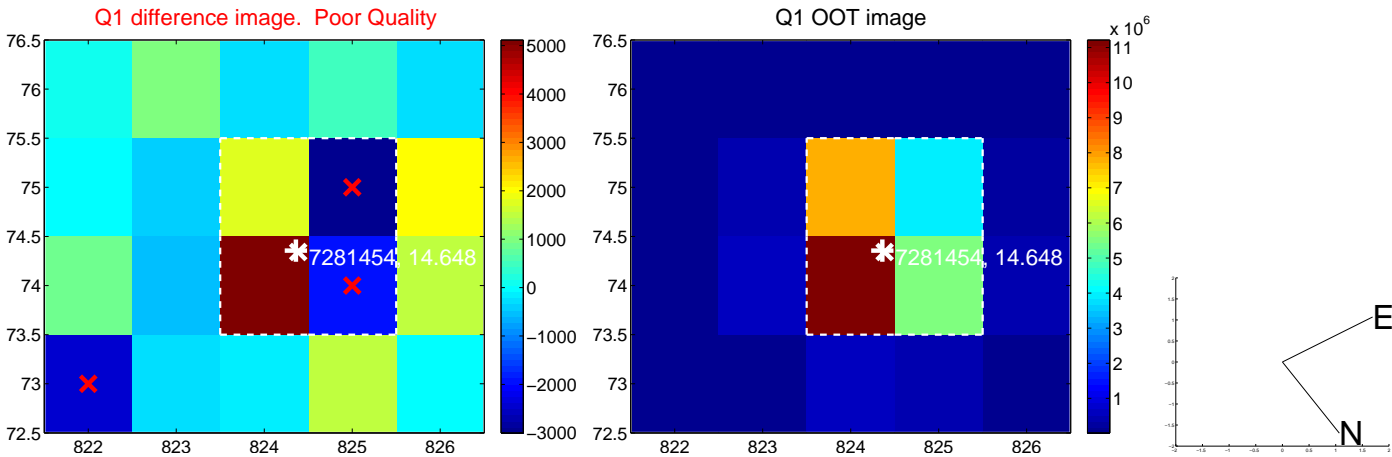
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.617 ± 0.920	2.85	-1.809 ± 1.587	1.892 ± 1.305
PRF-fit source offset from KIC position	2.503 ± 0.840	2.98	-1.751 ± 1.452	1.789 ± 1.218
photometric centroid source offset	0.08 ± 0.36	0.21	0.05 ± 0.37	-0.05 ± 0.35

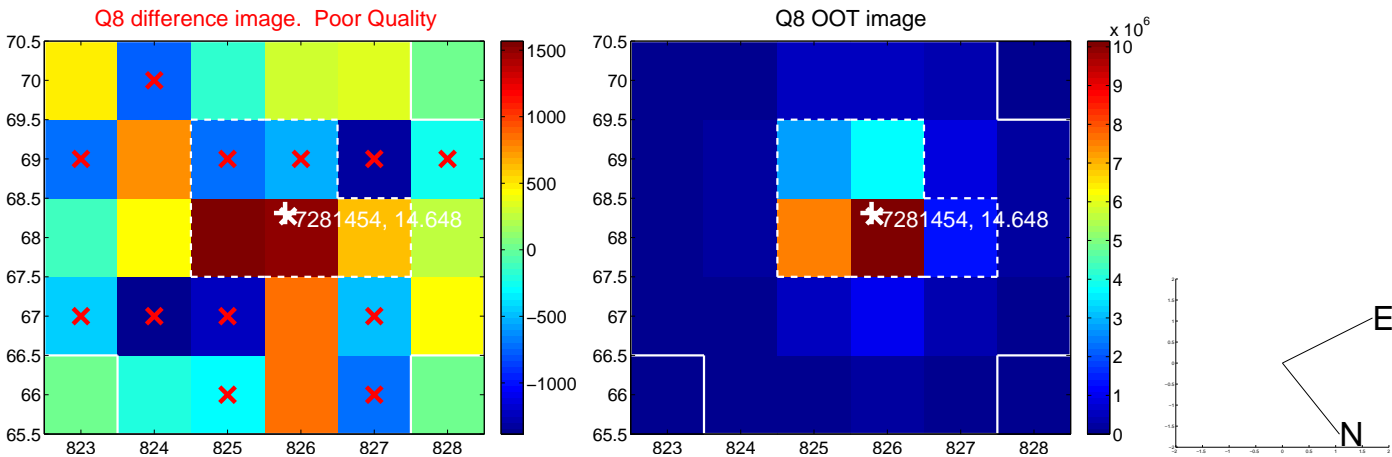
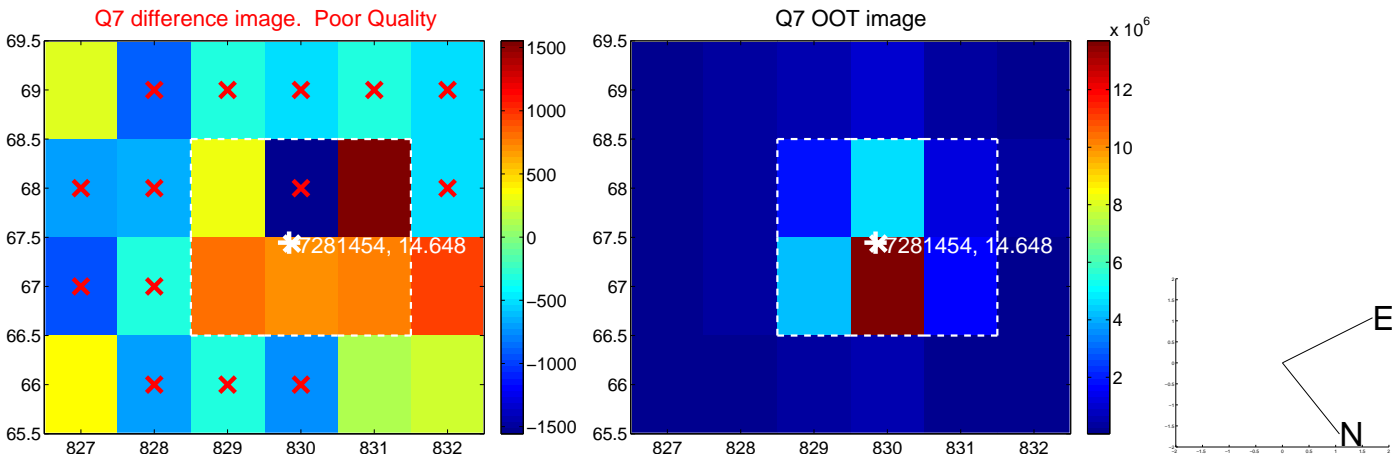
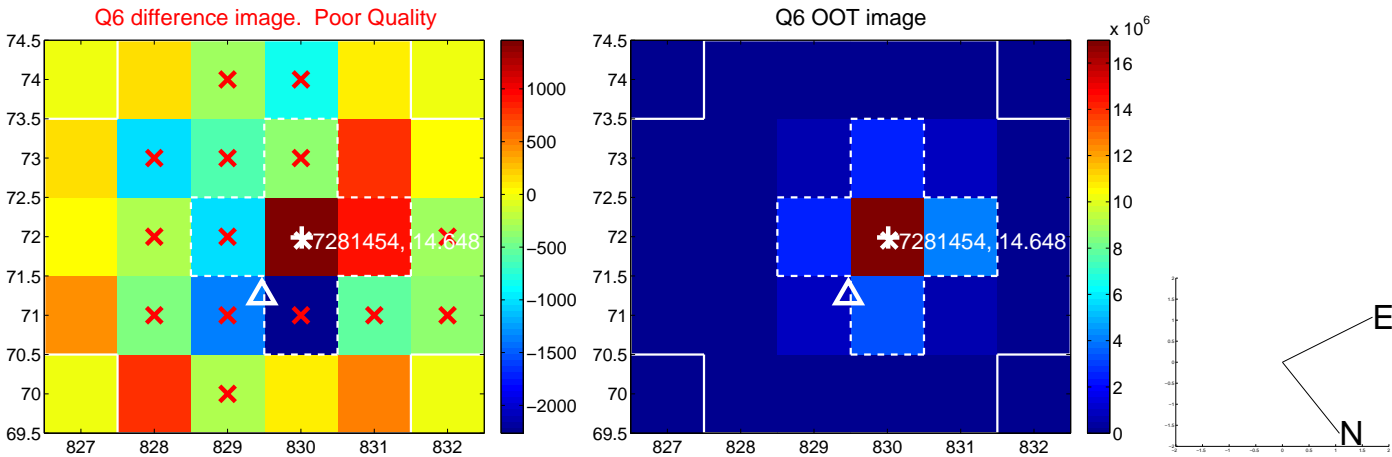
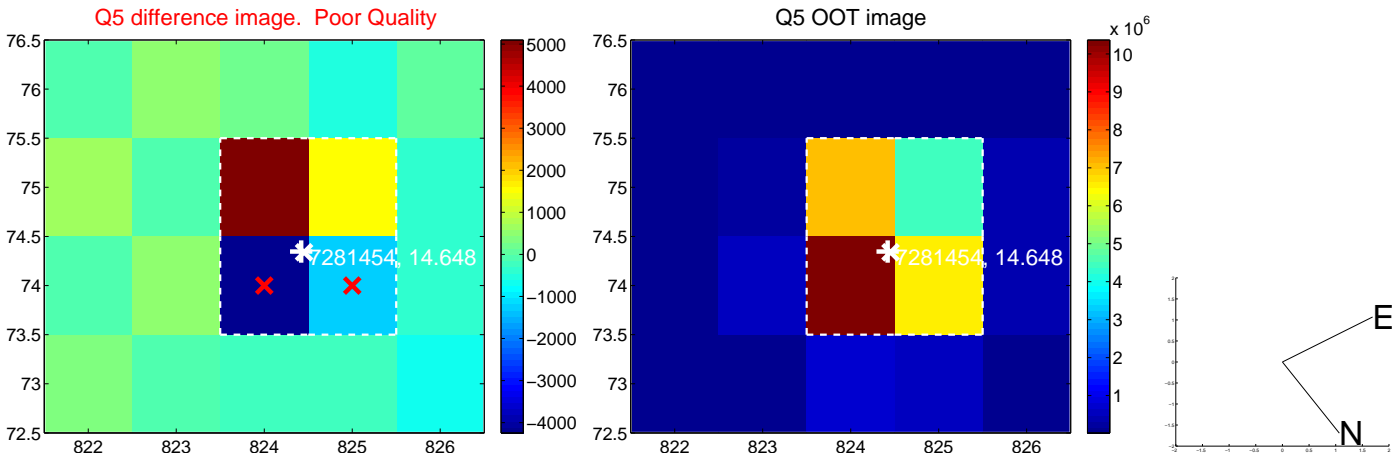


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

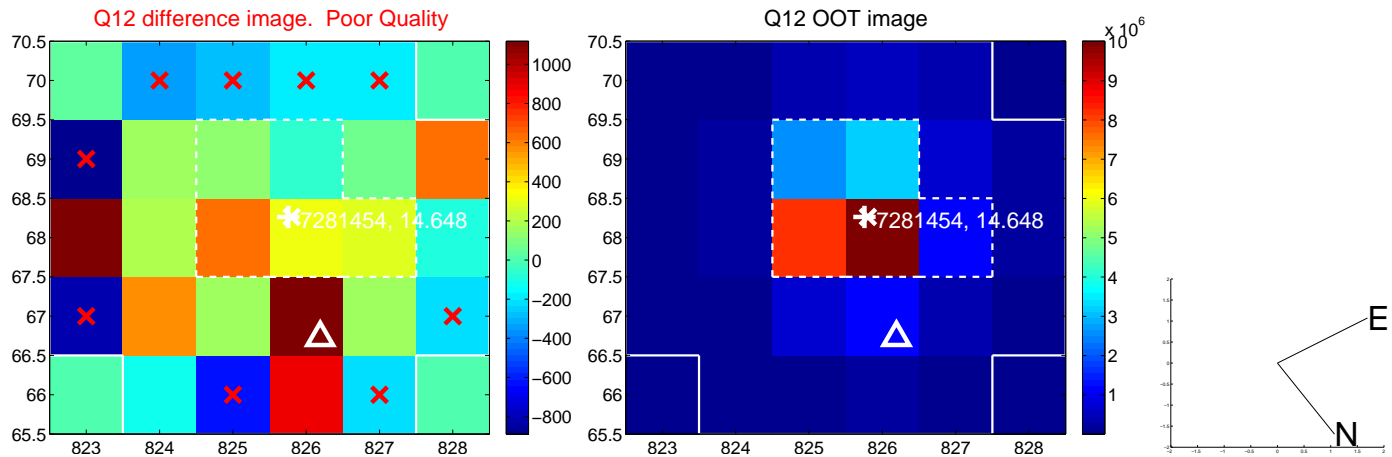
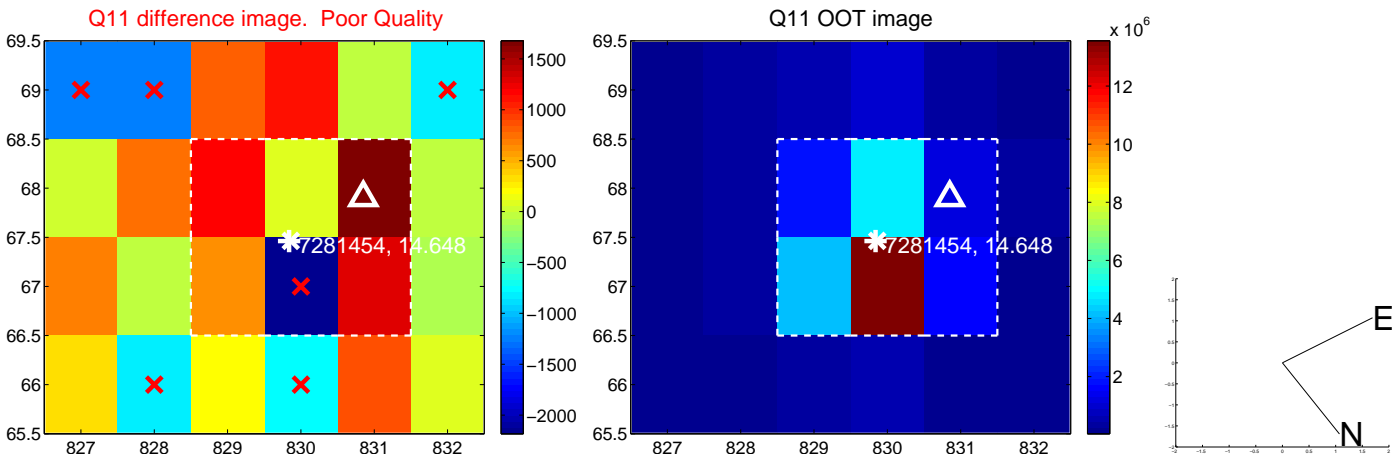
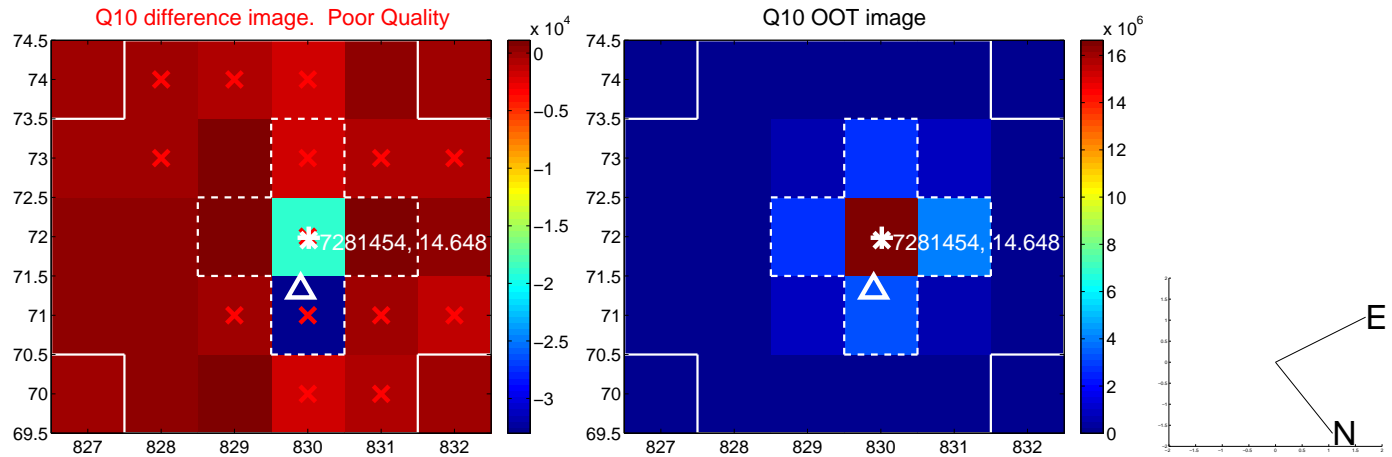
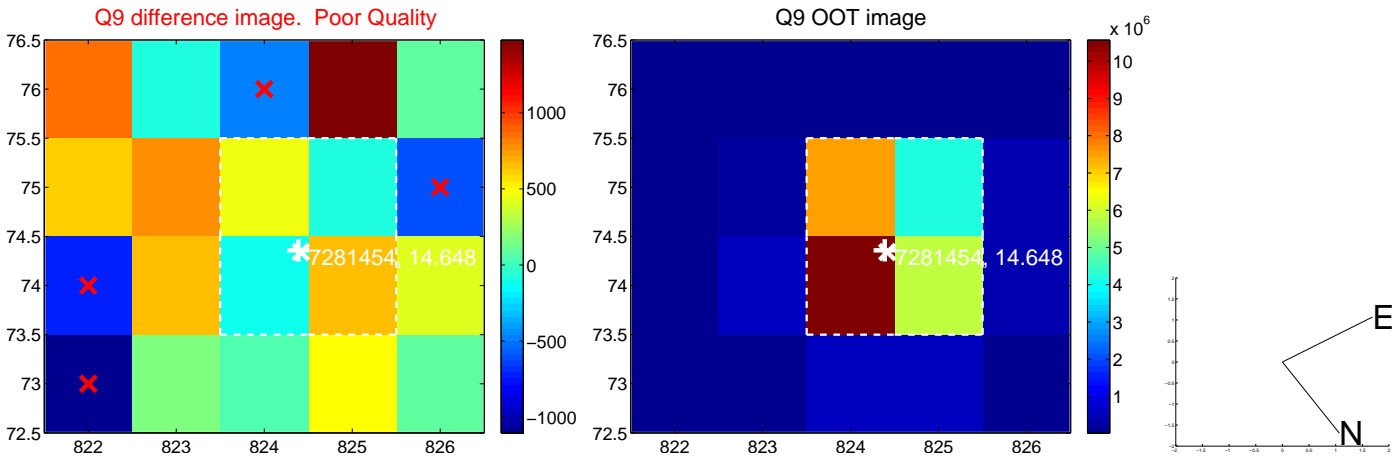
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



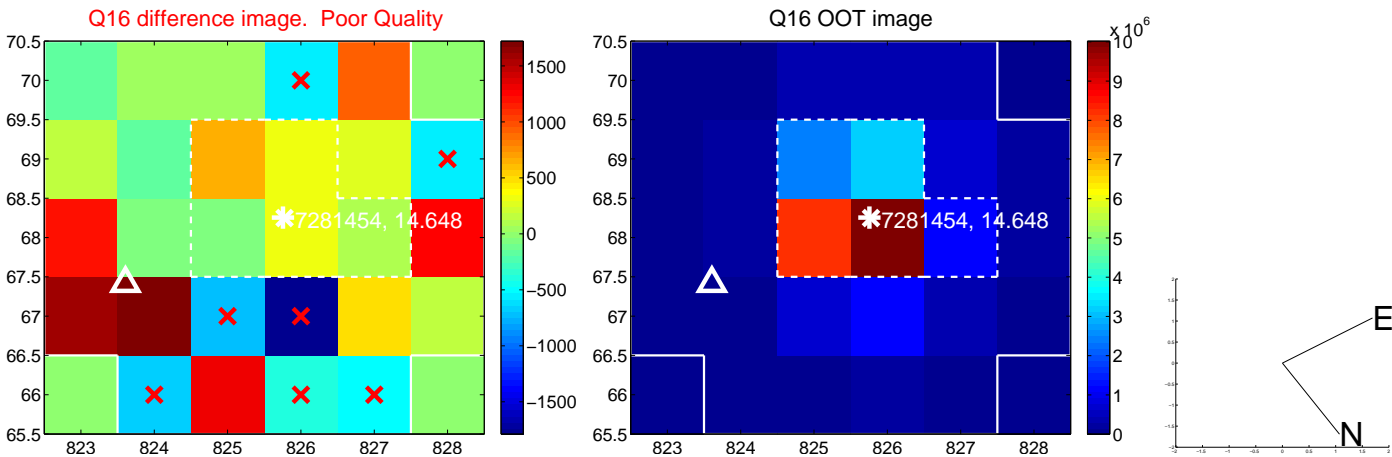
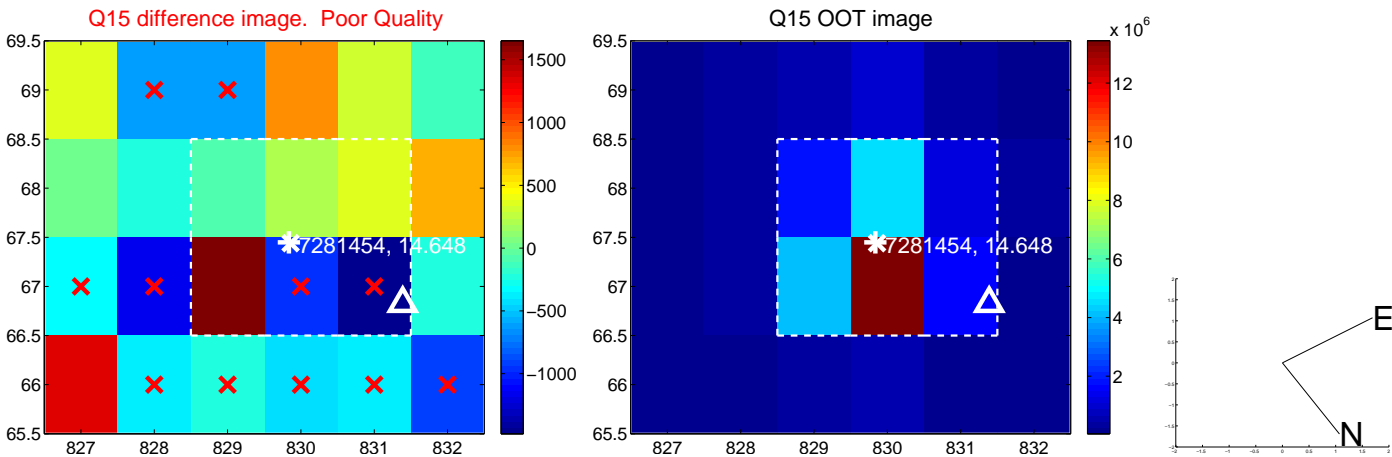
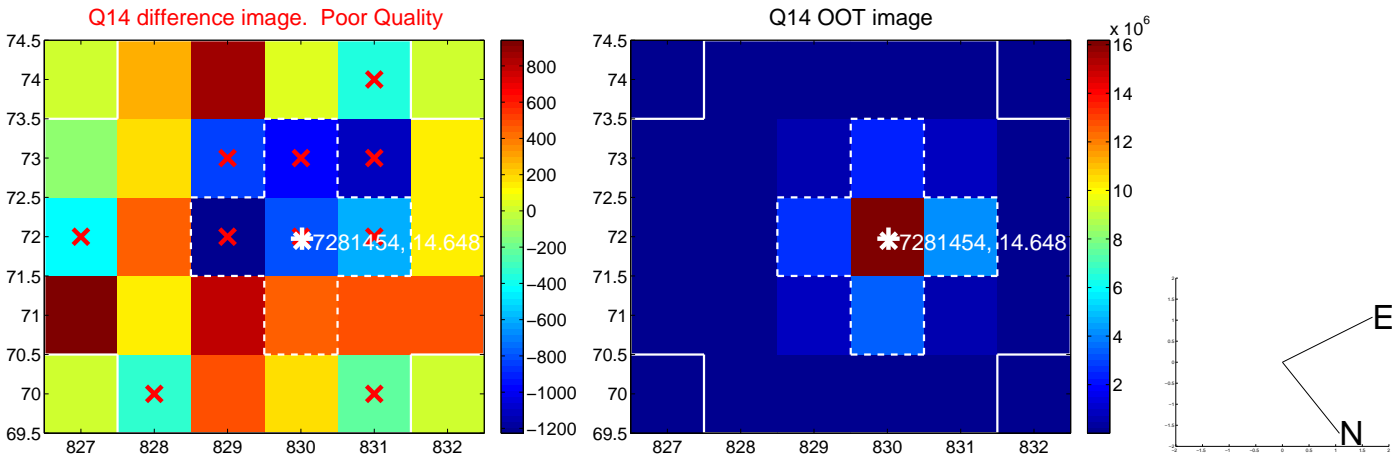
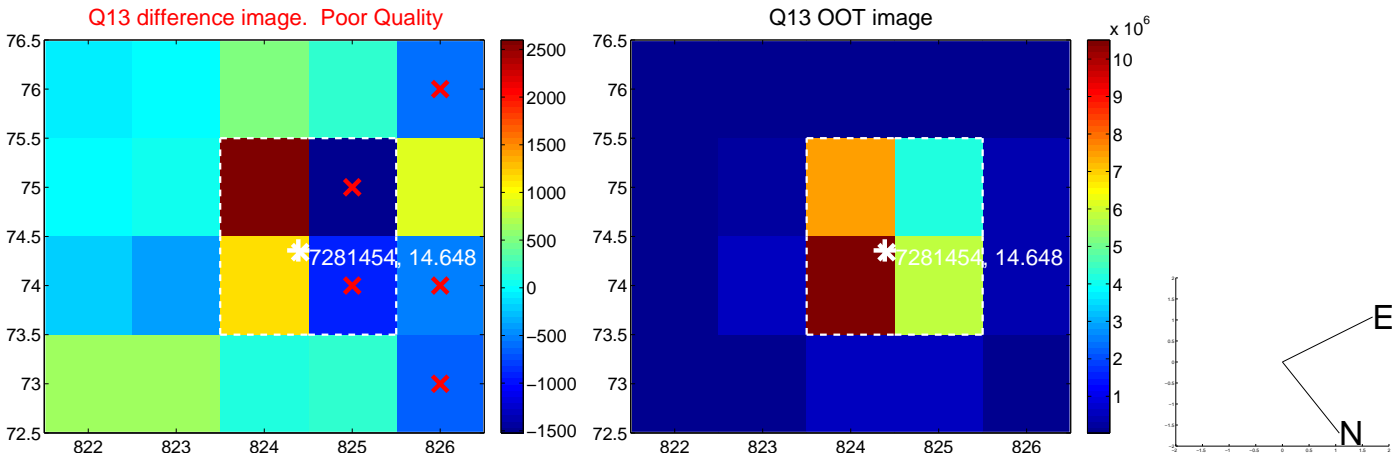
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



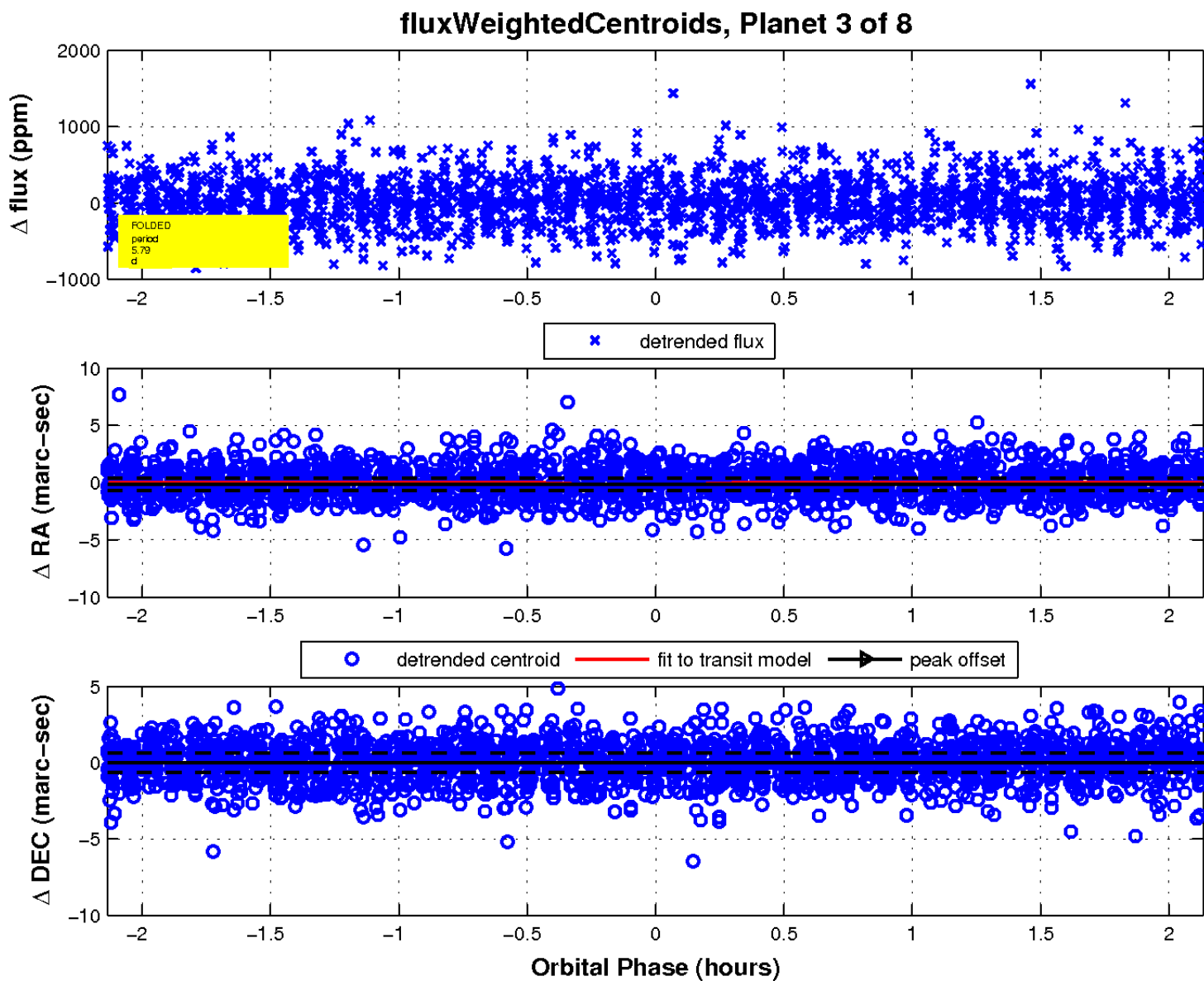
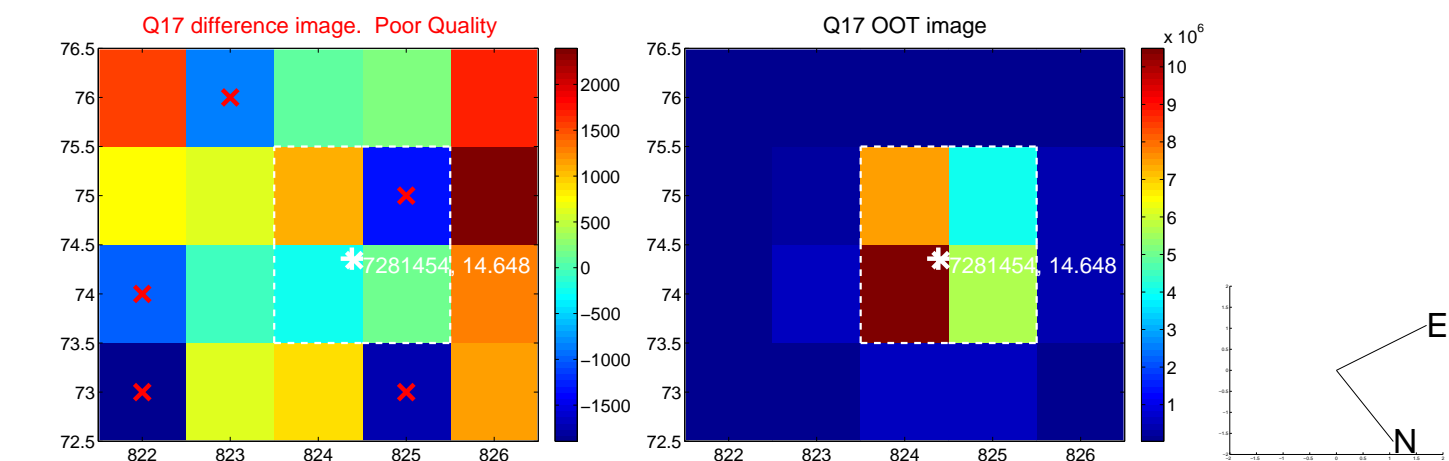
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

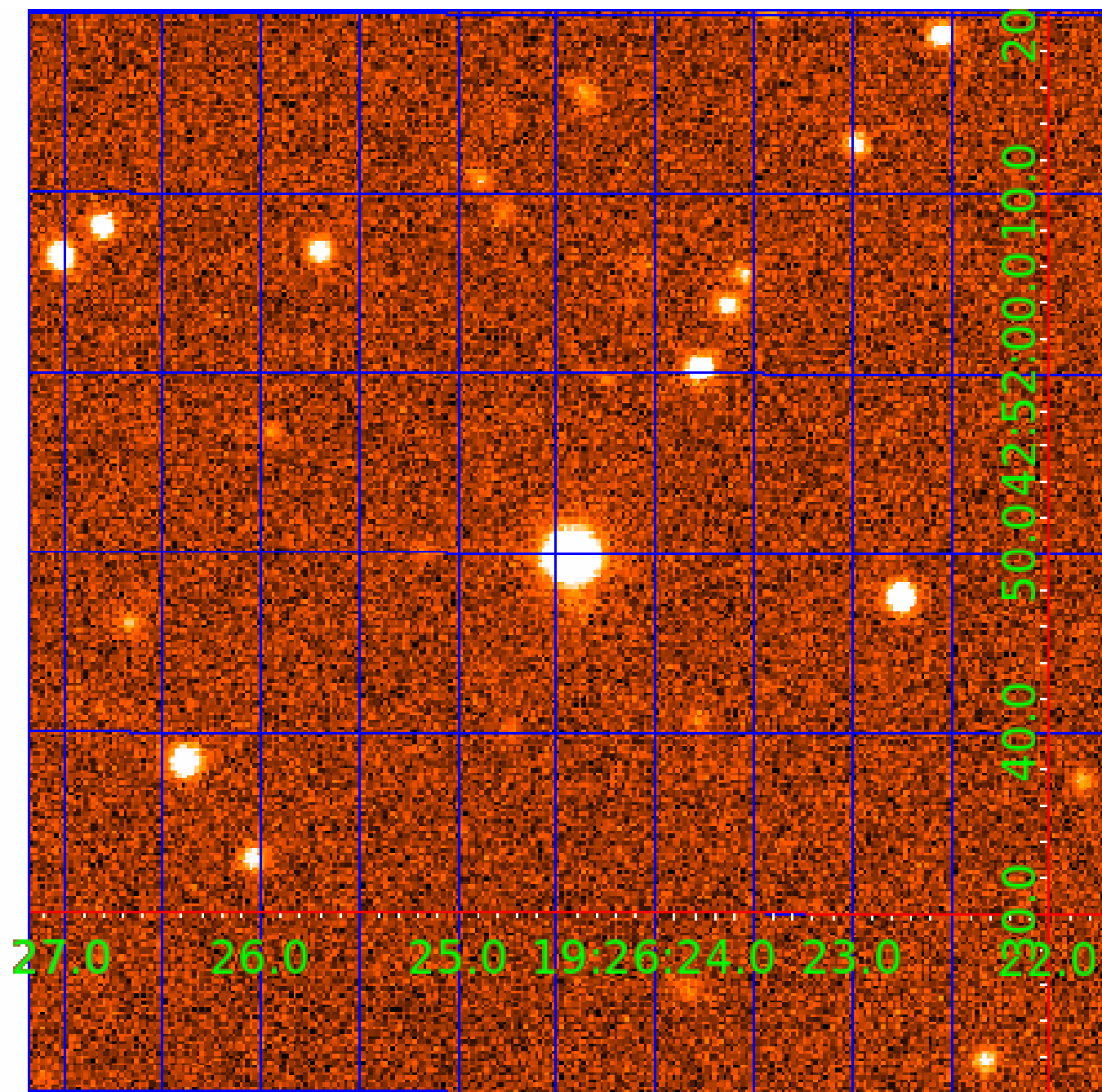


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007281454

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})
007281454-01	OBS	3055.01	0.566695	131.938748	8.1	4.252	10.4	3.0	0.55	5000	0.16	1380.46
007281454-02	OBS	No	10.739148	137.537077	210.7	1.193	11.1	7.7	0.55	5000	0.85	27.32
007281454-03	OBS	No	5.789677	133.205705	680.8	0.712	15.0	17.3	0.55	5000	1.46	62.27
007281454-04	OBS	No	12.853532	142.647659	818.3	0.545	12.5	20.2	0.55	5000	1.65	21.50
007281454-05	OBS	No	5.276778	131.556097	412.6	0.736	14.5	15.6	0.55	5000	1.17	70.47
007281454-06	OBS	No	4.369578	134.114310	246.7	0.943	12.5	12.0	0.55	5000	0.87	90.62
007281454-07	OBS	No	8.141625	136.843060	217.1	1.522	13.5	8.9	0.55	5000	0.81	39.52
007281454-08	OBS	No	3.770951	134.193884	109.6	0.575	8.4	4.0	0.55	5000	0.61	110.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007281454-01	OBS	FP	0.00	1	0	0	1	LPP_DV—EPHEM_MATCH
007281454-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
007281454-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007281454-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007281454-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007281454-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007281454-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV
007281454-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

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

Ephemeris Match Information For 007281454-04

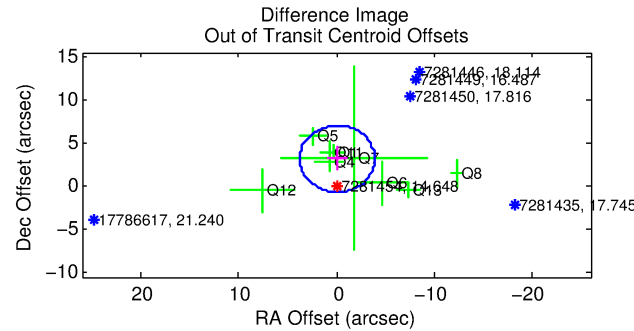
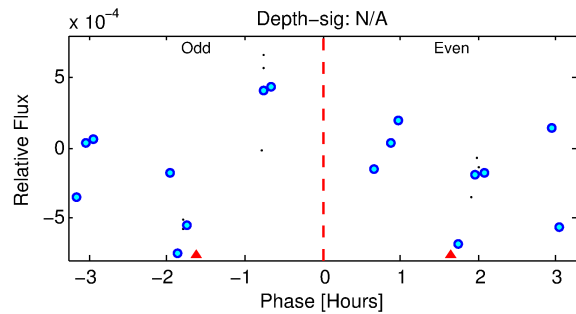
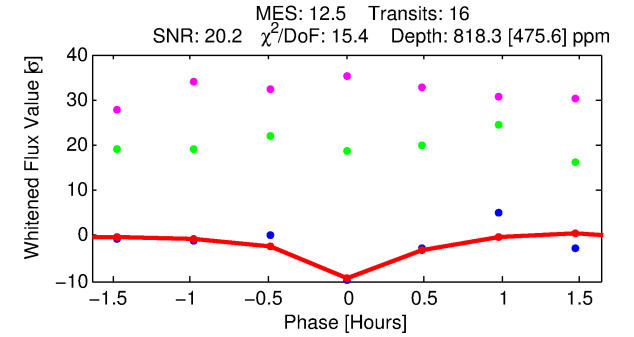
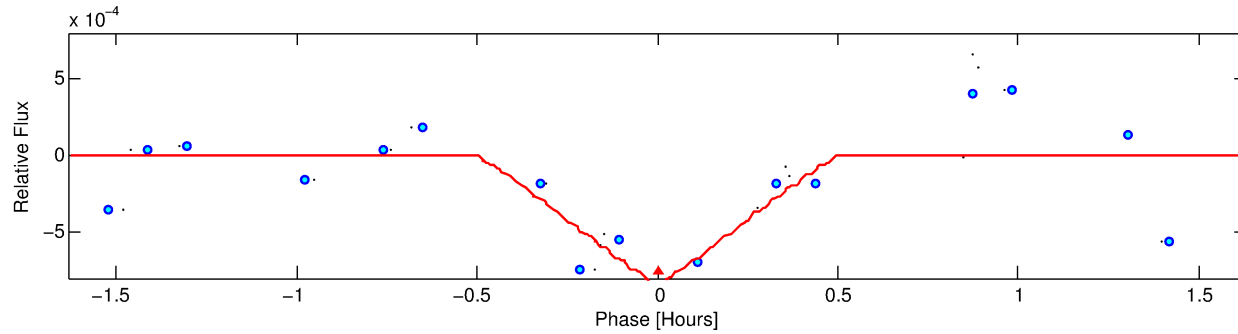
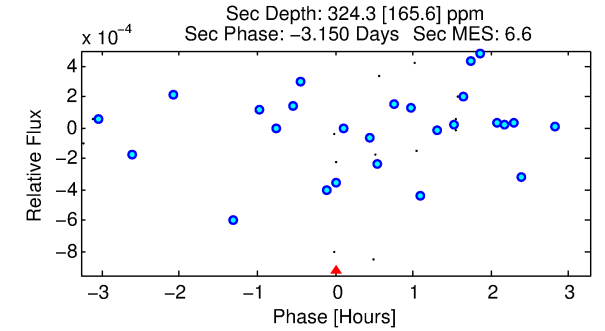
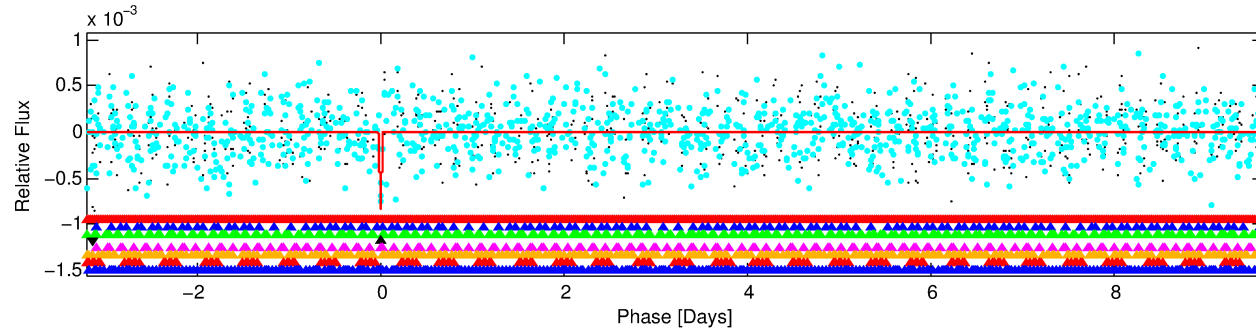
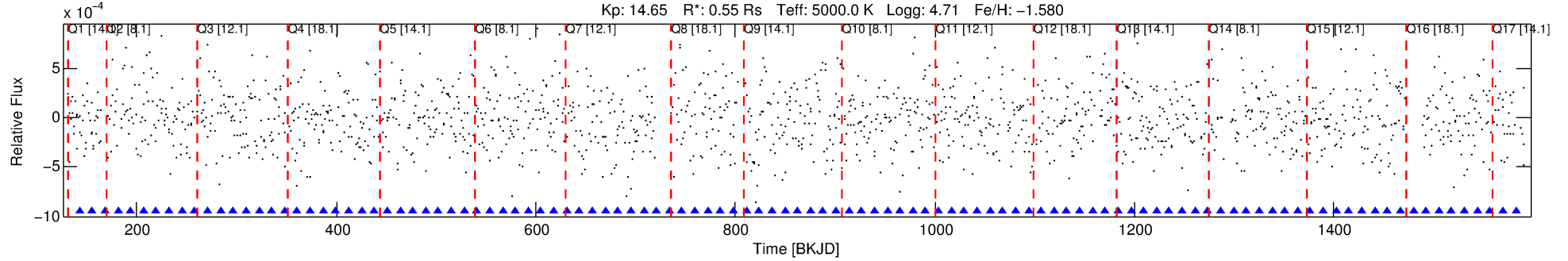
No Significant Match Found

DV One-Page Summary

KIC: 7281454 Candidate: 4 of 8 Period: 12.854 d

KOI: K03055 Corr: No Ephemeris Match

Kp: 14.65 R*: 0.55 Rs Teff: 5000.0 K Logg: 4.71 Fe/H: -1.580



DV Fit Results:

Period = 12.85353 [0.00015] d
Epoch = 142.6477 [0.0103] BKJD
Rp/R* = 0.0275 [0.0498]
a/R* = 176.69 [1430.63]
b = 0.31 [24.21]
Seff = 21.50 [3.14]
Teff = 549 [20] K
Rp = 1.64 [2.99] Re
a = 0.0886 [0.0046] AU
Ag = 517.50 [1897.15] [0.27σ]
Teffp = 4049 [3712] K [0.94σ]

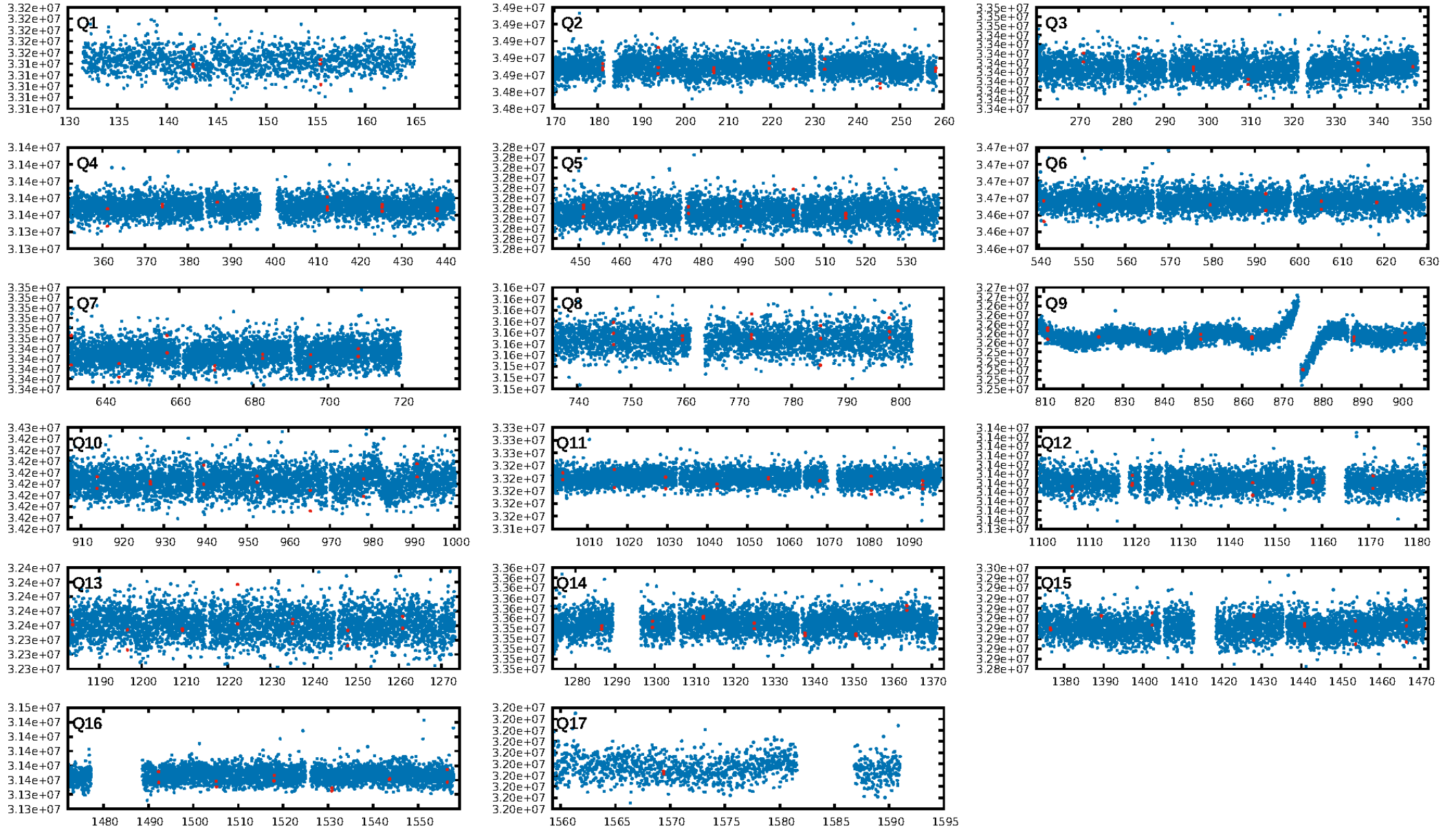
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [38.69σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 2.5%
Bootstrap-pfa: 5.14e-08
RollingBand-fgt: 1.00 [14/14]
GhostDiagnostic-chr: 8.215
Centroid-sig: 58.8%
Centroid-so: 0.169 arcsec [0.35σ]
OotOffset-rm: 3.171 arcsec [2.47σ]
KicOffset-rm: 3.057 arcsec [2.38σ]
OotOffset-st: 1/2/3/3 [9]
KicOffset-st: 1/2/3/3 [9]
DiffImageQuality-fgm: 0.00 [0/9]
DiffImageOverlap-fno: 0.00 [0/14]

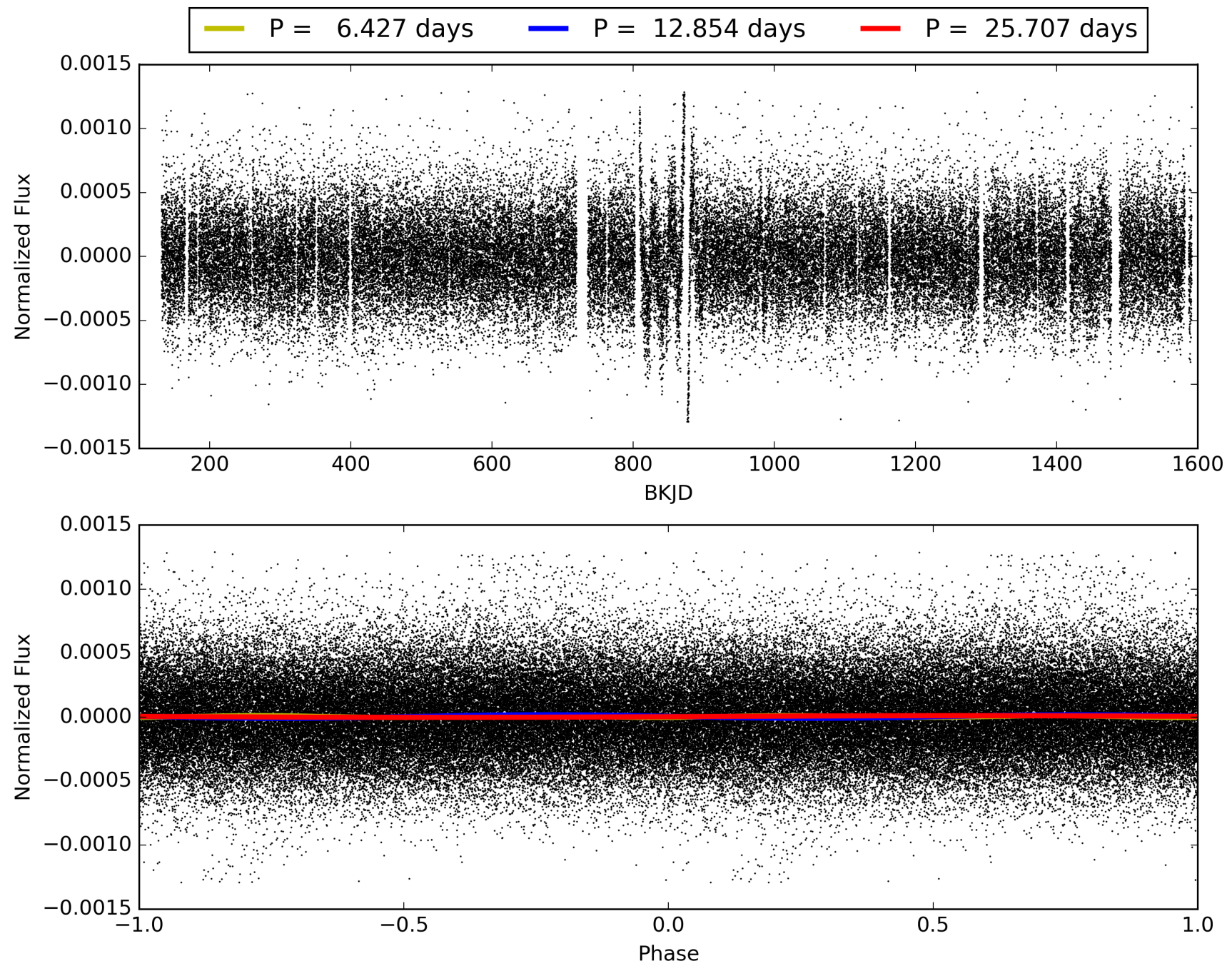
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 10:46:50 Z

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

TCE 007281454-04, PDC Light Curves

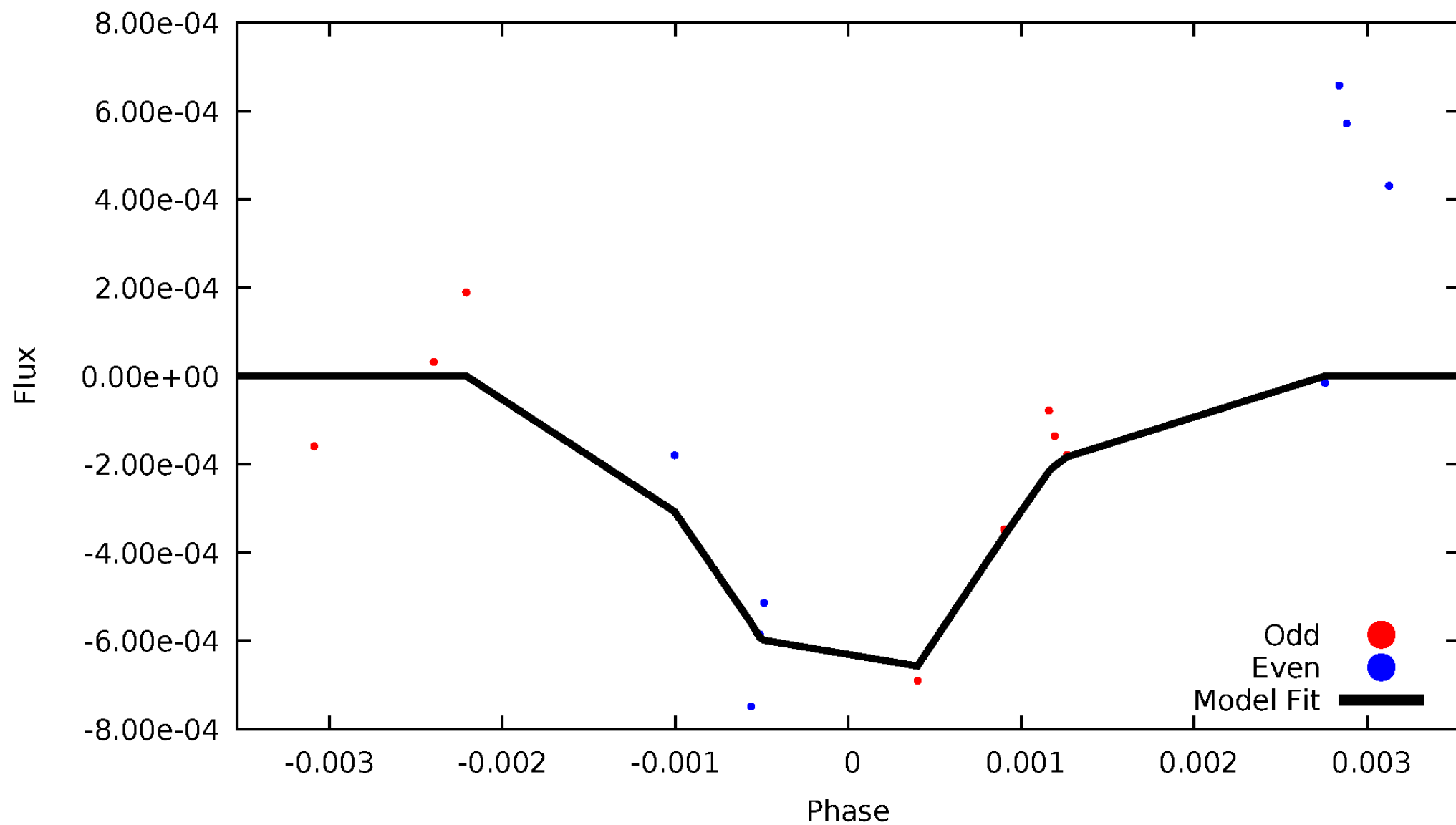


TCE 007281454-04



DV Odd/Even

TCE 007281454-04

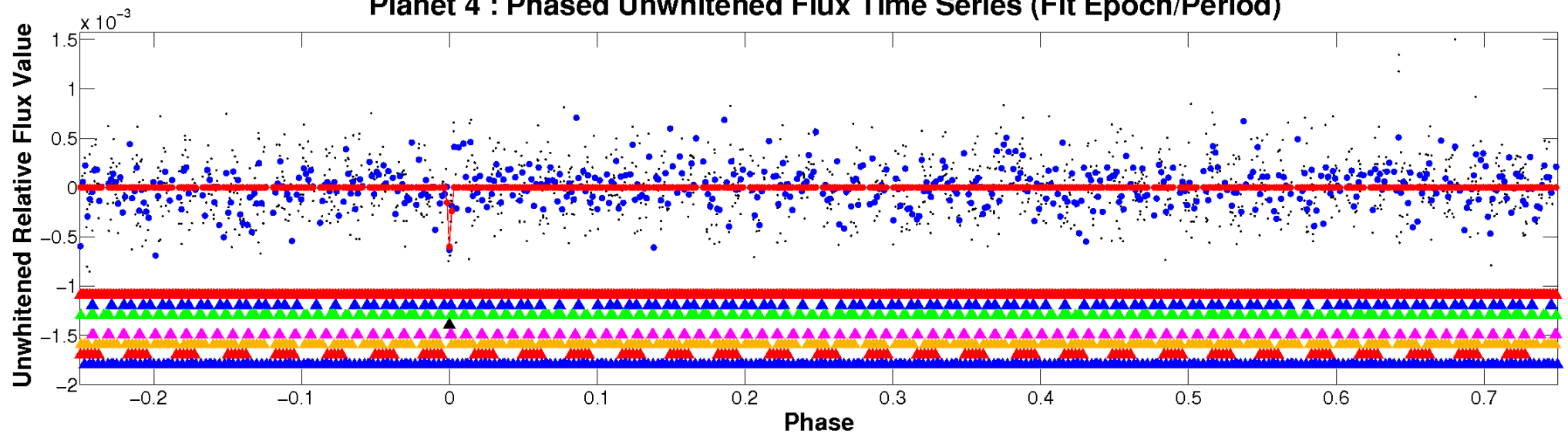


ALT Odd/Even

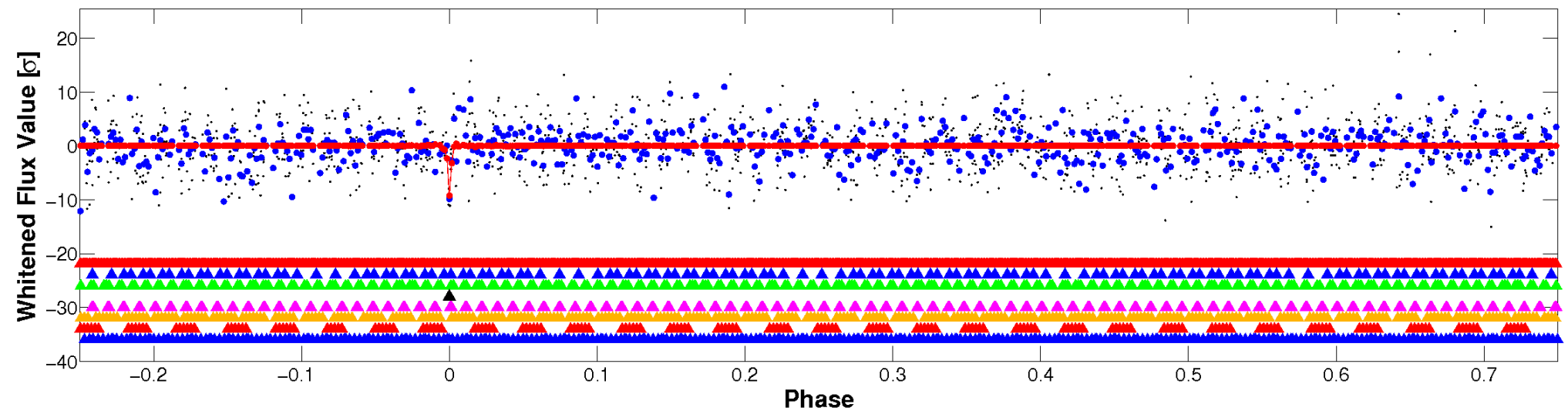
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

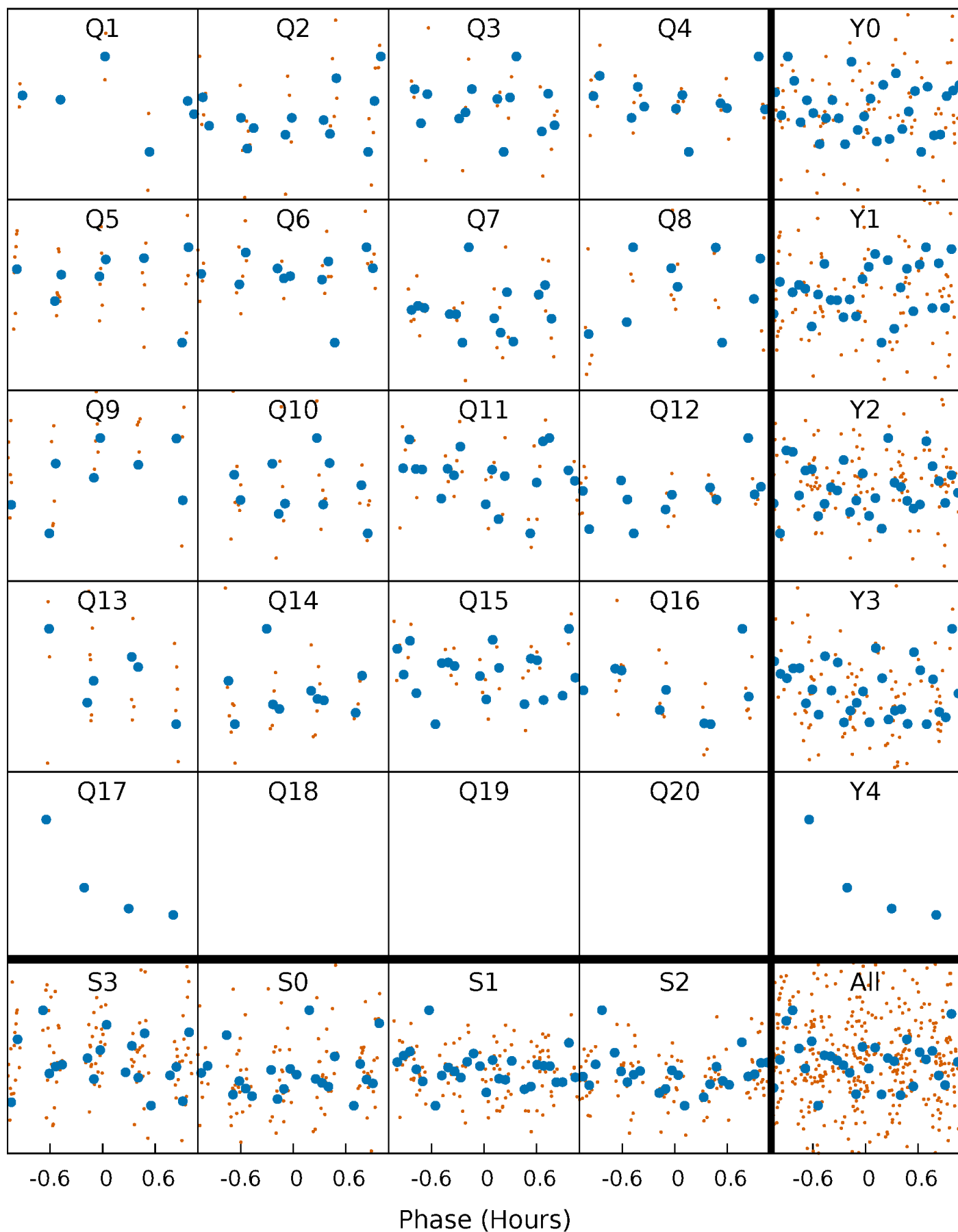


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



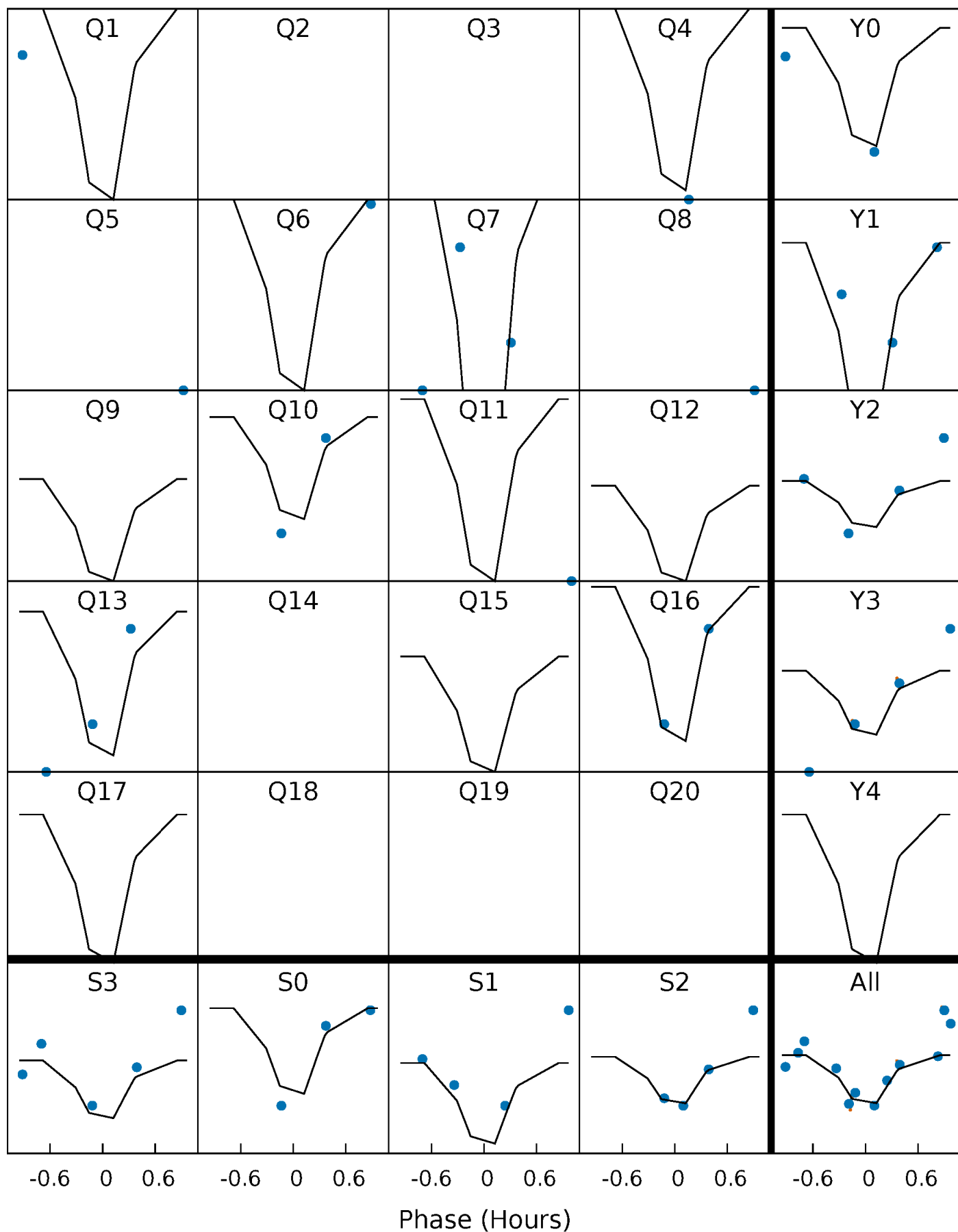
PDC Quarter-Phased Transit Curves

TCE 007281454-04 P= 12.853532 Days $T_0=142.647659$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007281454-04 P= 12.853532 Days $T_0=142.647659$ (BKJD)

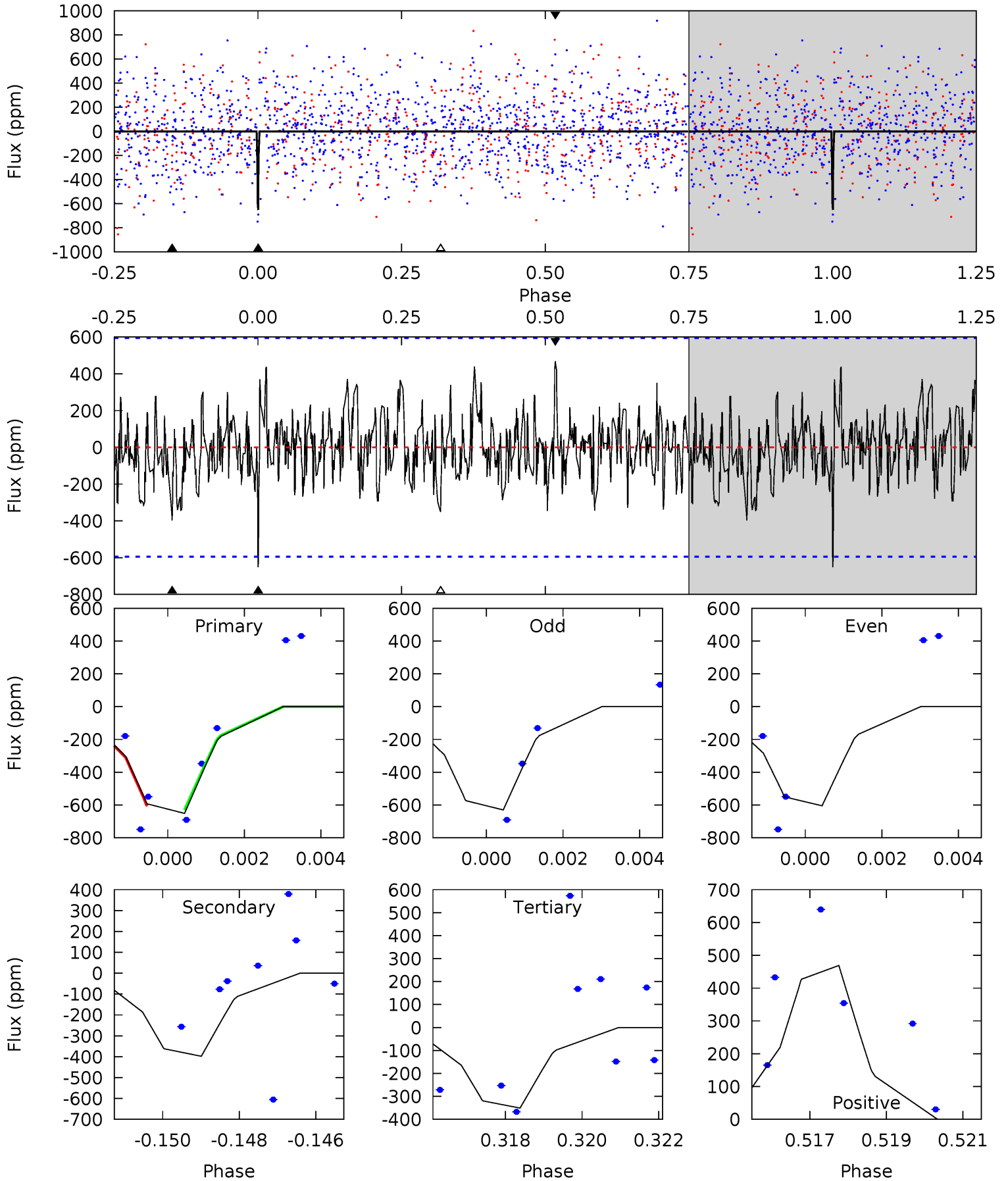


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007281454-04, P = 12.853532 Days, E = 129.794127 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.85	3.58	3.15	4.22	5.34	3.12	1.22	2.70	1.64	0.42	-0.64	0.11	0	0.42	0.11



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007281454

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5000^{+150}_{-150}	$4.708^{+0.049}_{-0.021}$	$-1.580^{+0.300}_{-0.250}$	$0.549^{+0.025}_{-0.030}$	$0.561^{+0.038}_{-0.017}$	$4.773^{+0.785}_{-0.461}$
	+3%/-3%	+1%/-0%	+19%/-16%	+5%/-5%	+7%/-3%	+16%/-10%
Source	PHO1	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 007281454-04 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-398 ± 111	$2.74^{+2.64}_{-1.91}$	762^{+25}_{-25}	3660^{+2209}_{-688}	236^{+2311}_{-177}
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

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

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

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

DV Centroid Data

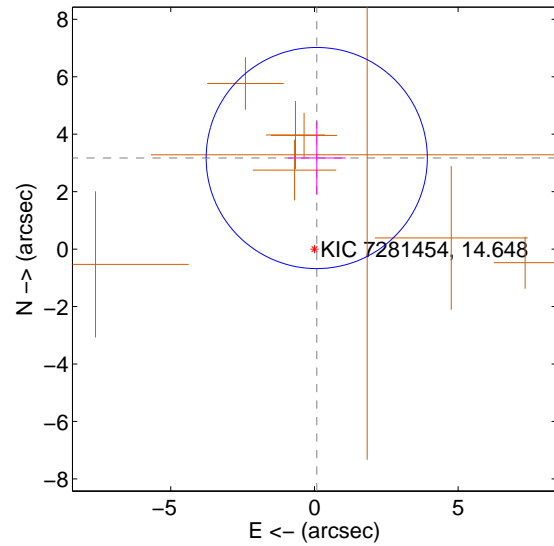
Supplemental centroid analysis for 007281454-04. Kepler magnitude: 14.65. Transit SNR 20.19

There are 0 quarters with good PRF difference image offsets

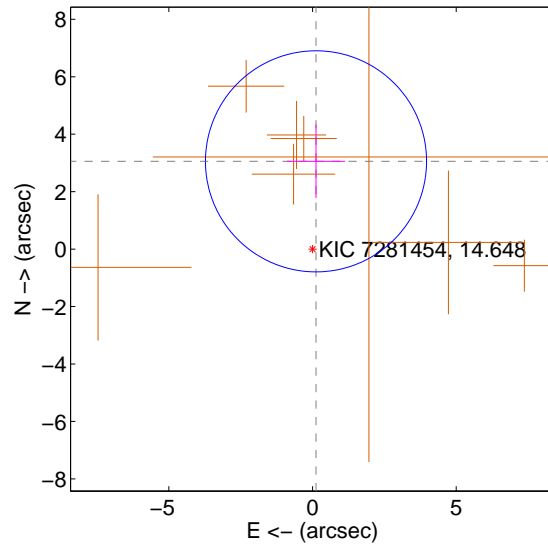
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.171 ± 1.283	2.47	-0.080 ± 1.008	3.170 ± 1.283
PRF-fit source offset from KIC position	3.057 ± 1.283	2.38	-0.121 ± 1.008	3.055 ± 1.283
photometric centroid source offset	0.17 ± 0.49	0.35	0.03 ± 0.50	0.17 ± 0.49

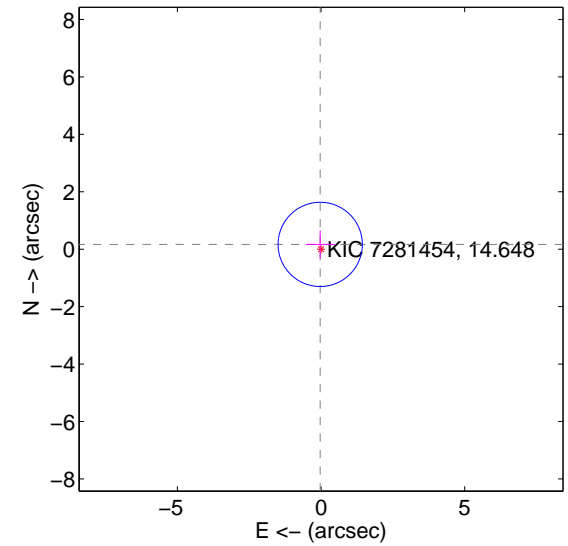
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

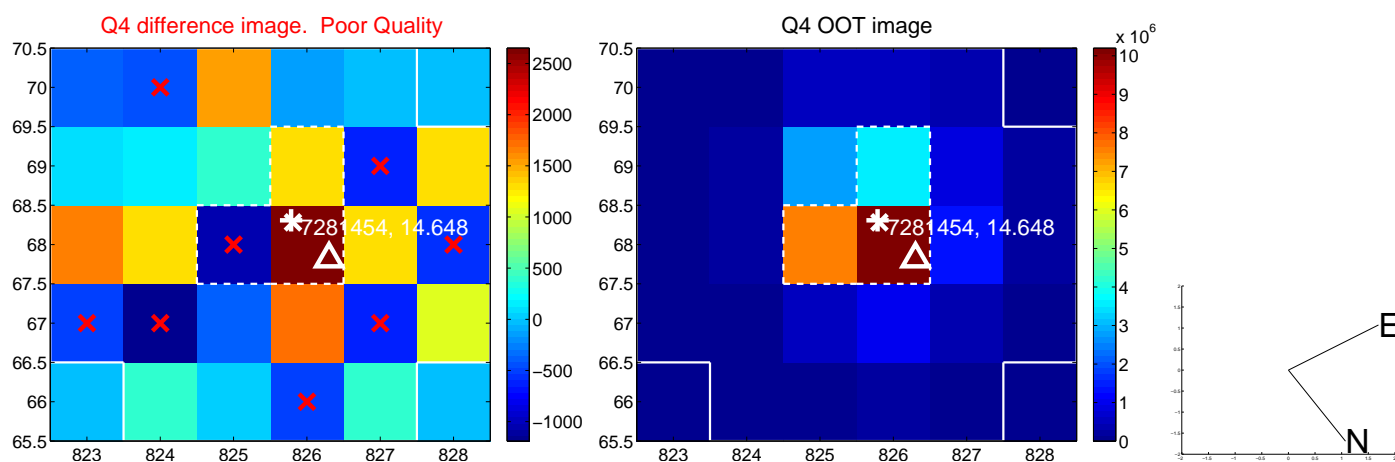
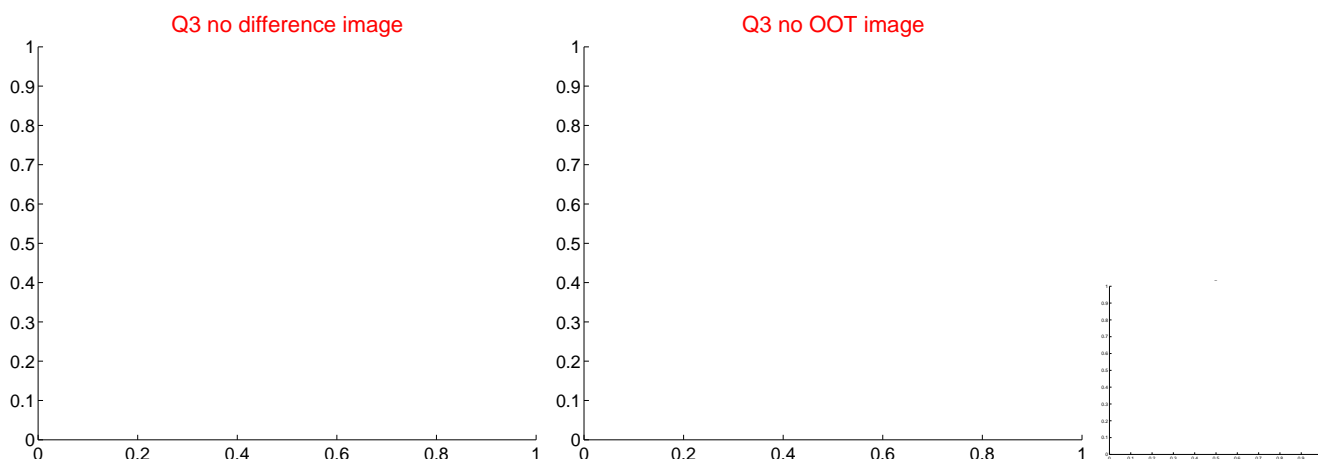
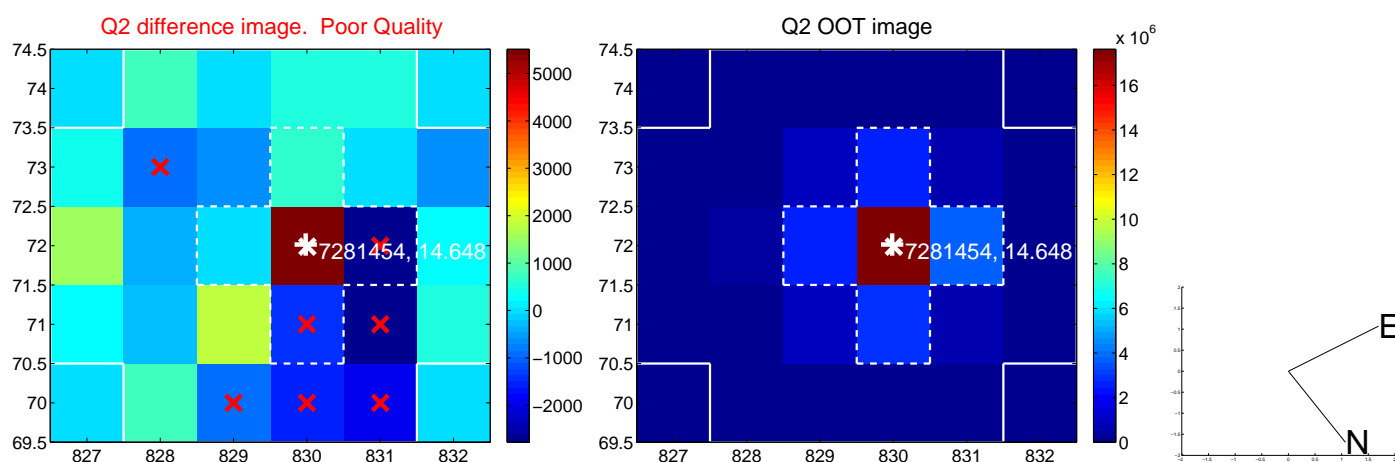
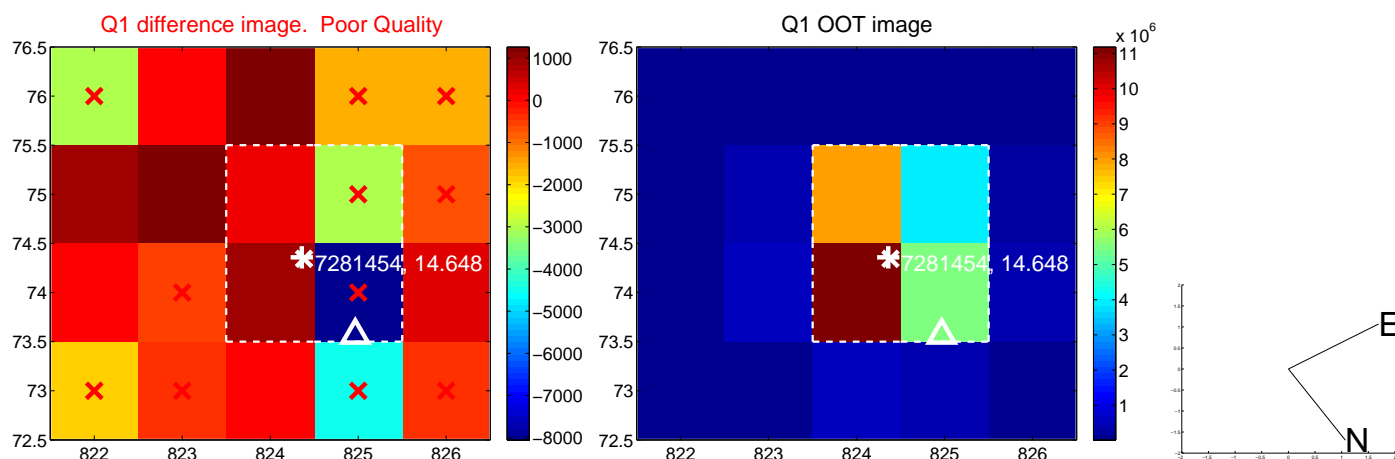


offset from photometric centroids

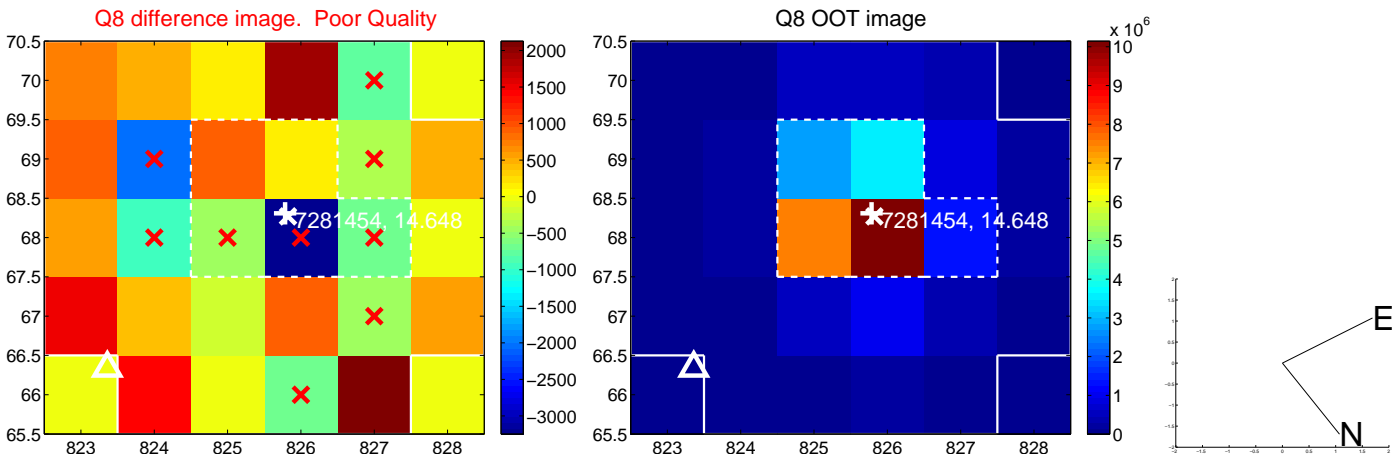
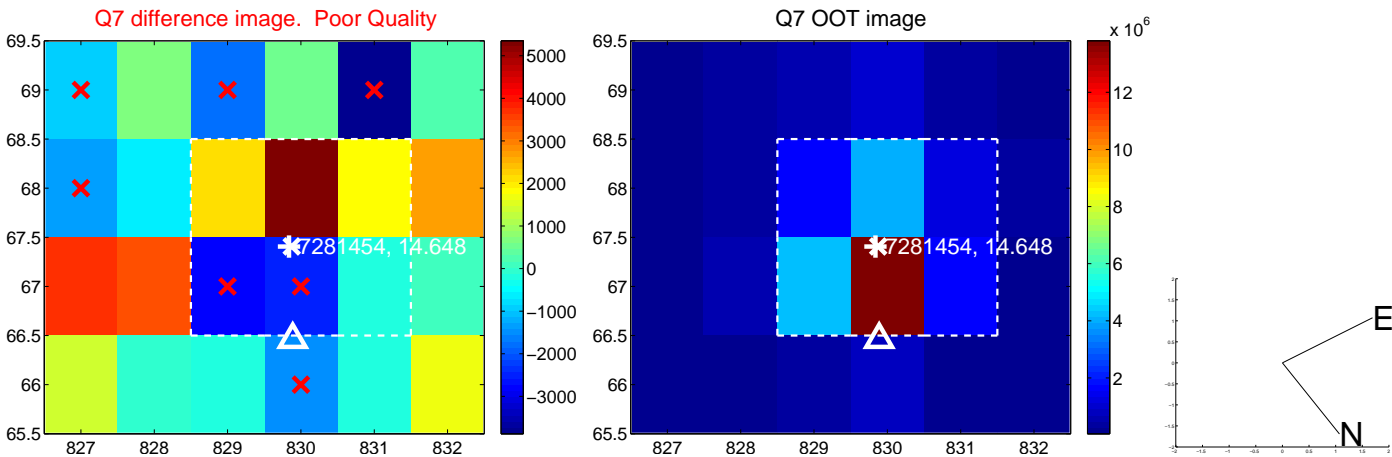
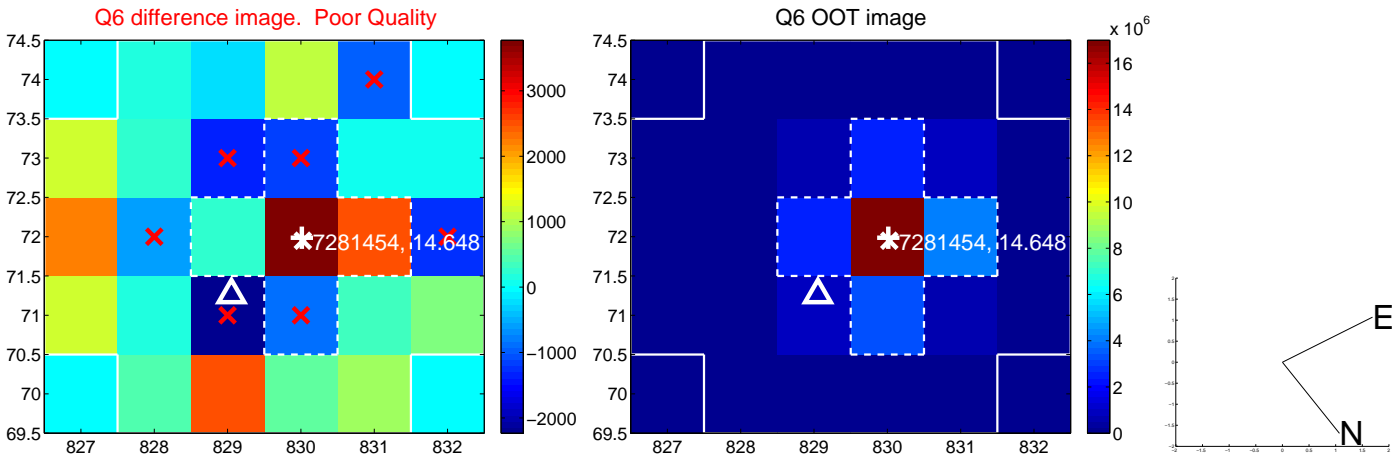
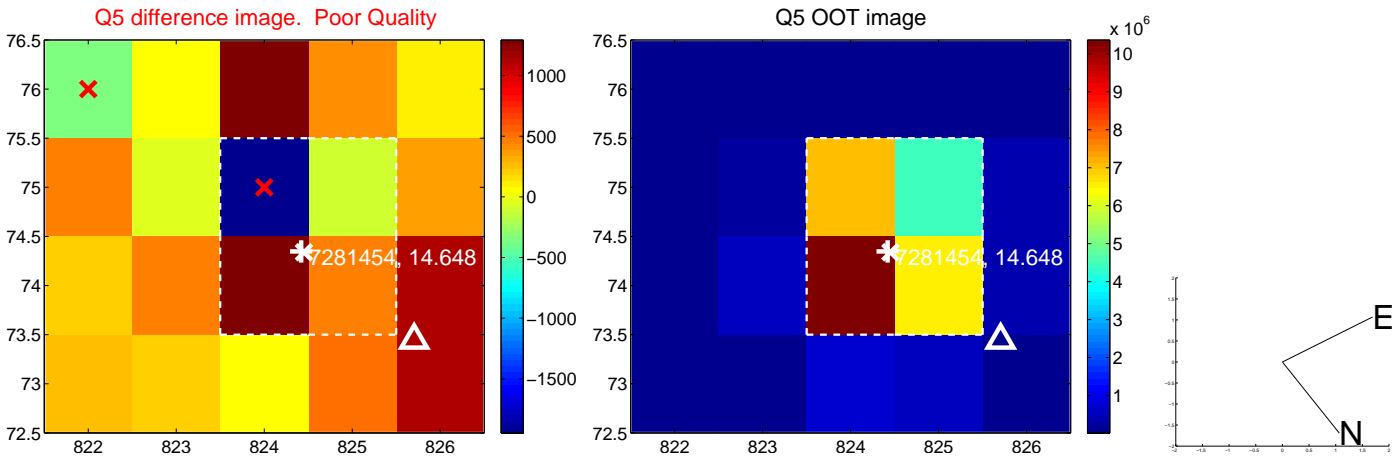


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

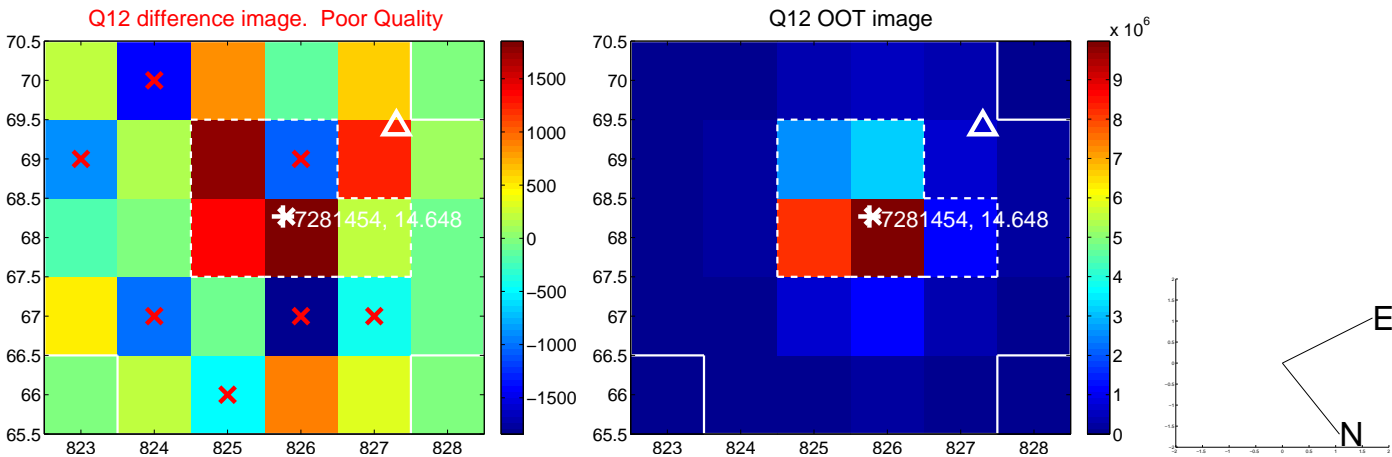
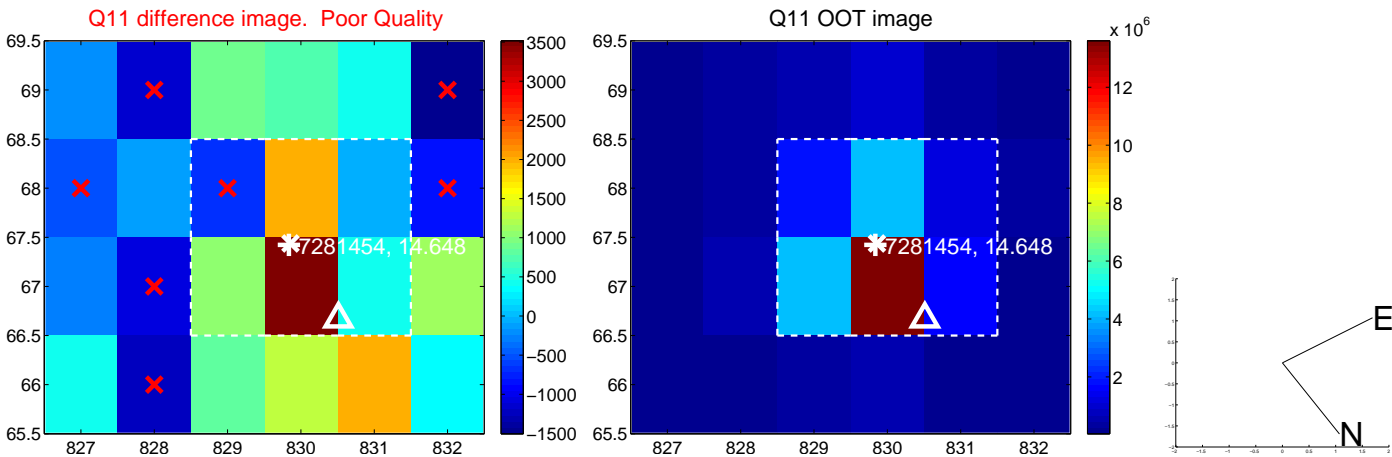
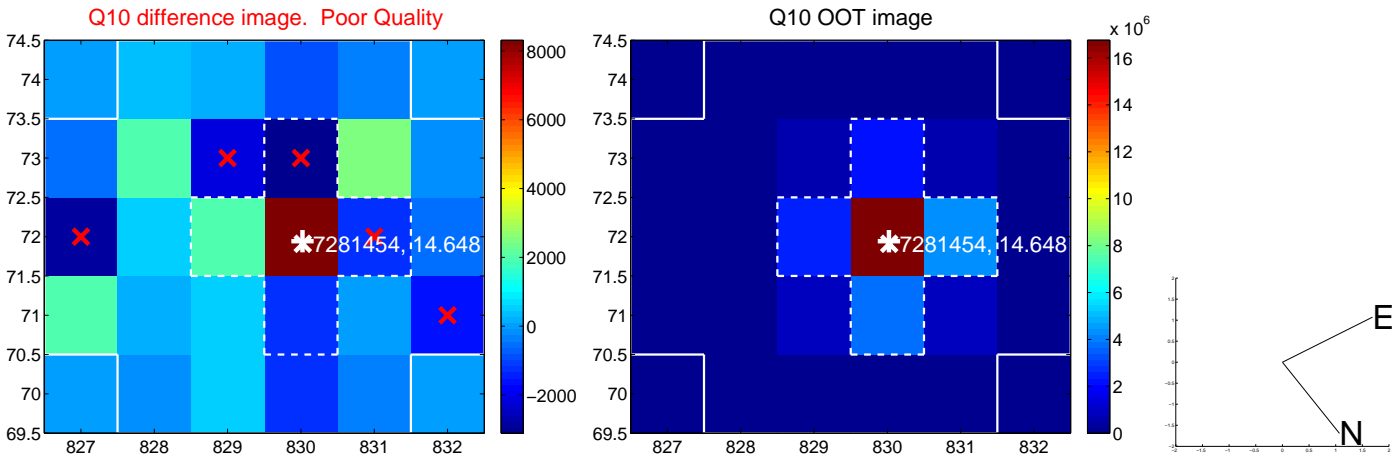
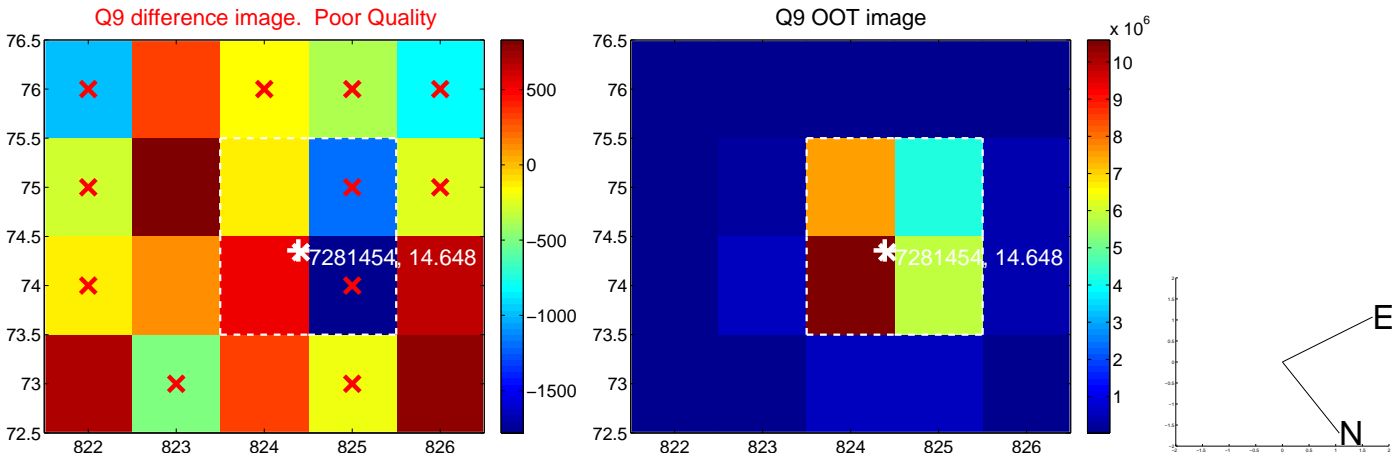
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



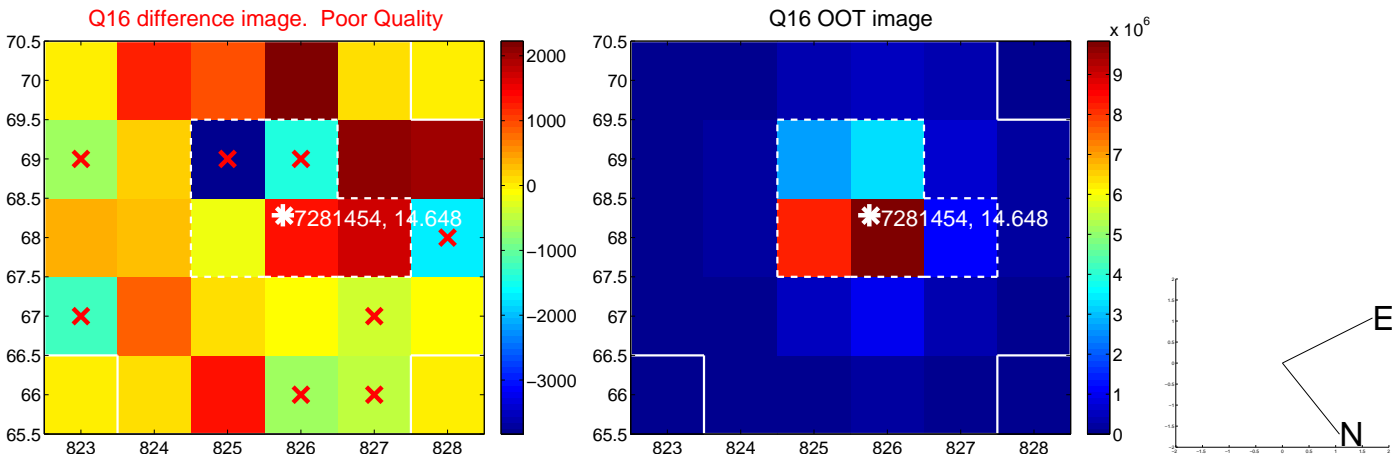
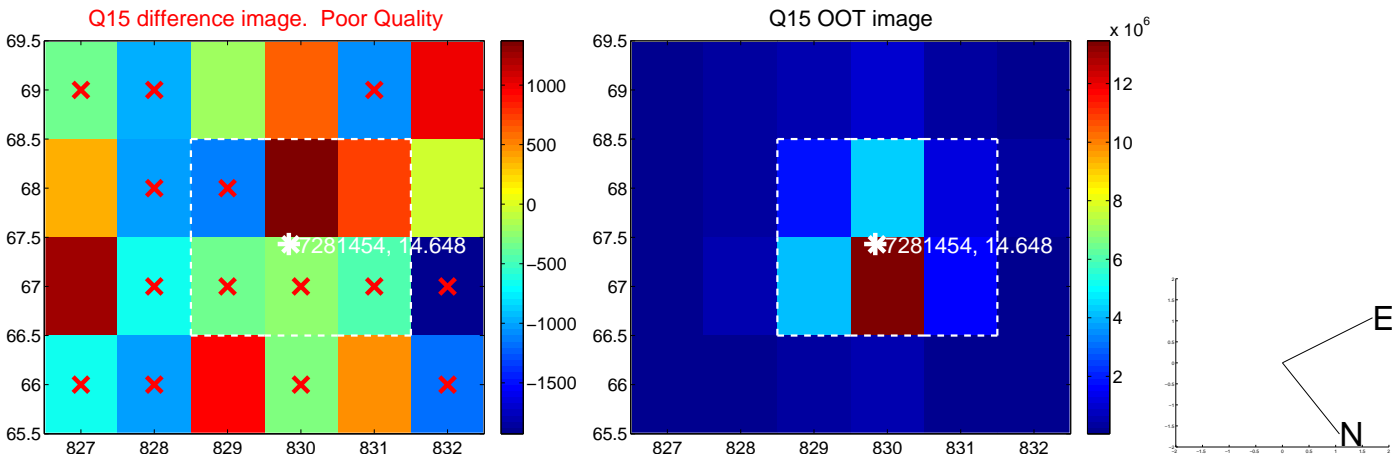
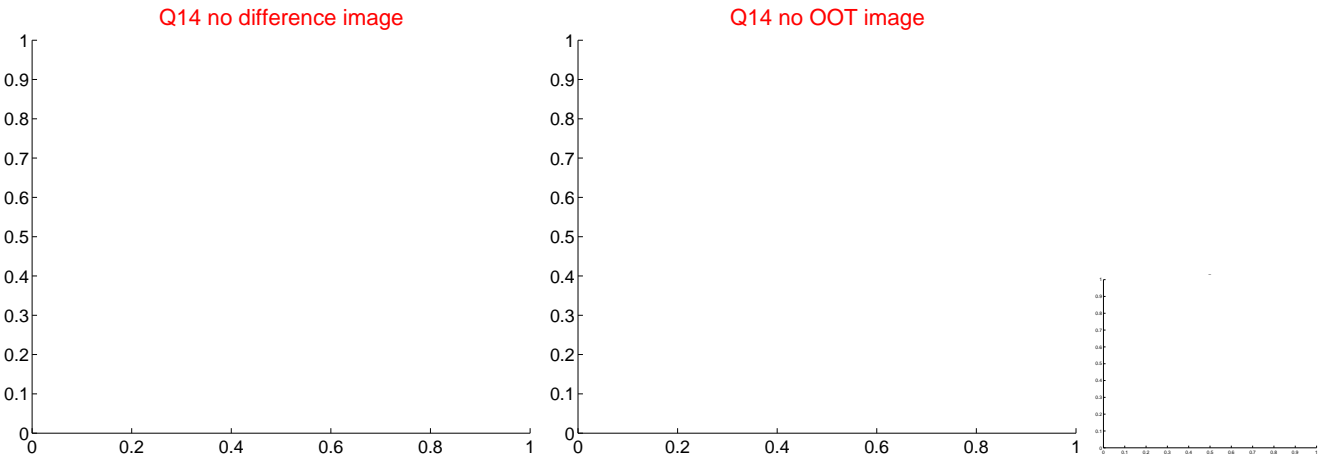
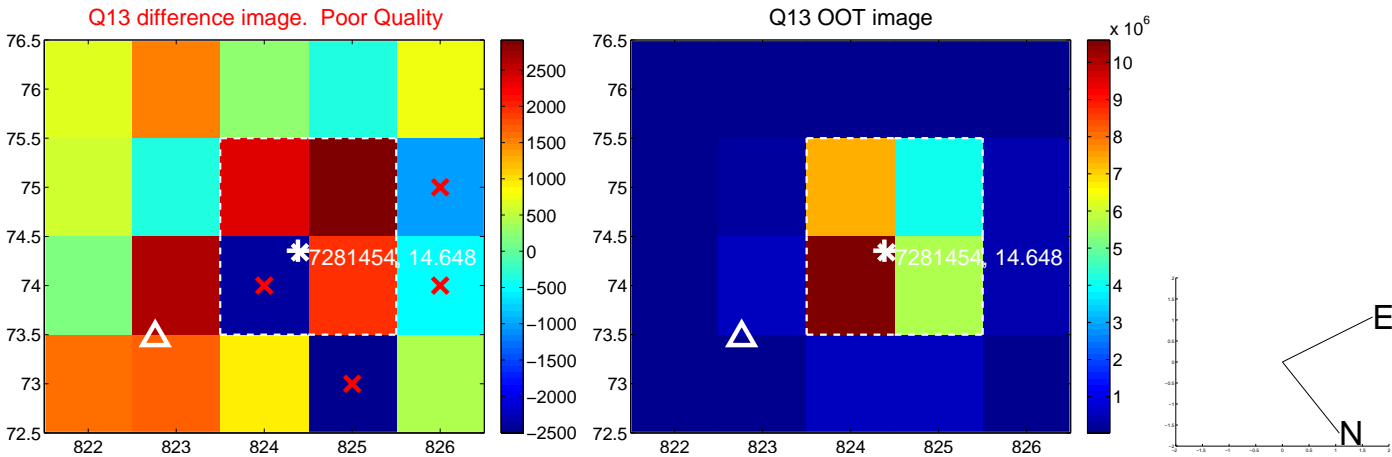
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



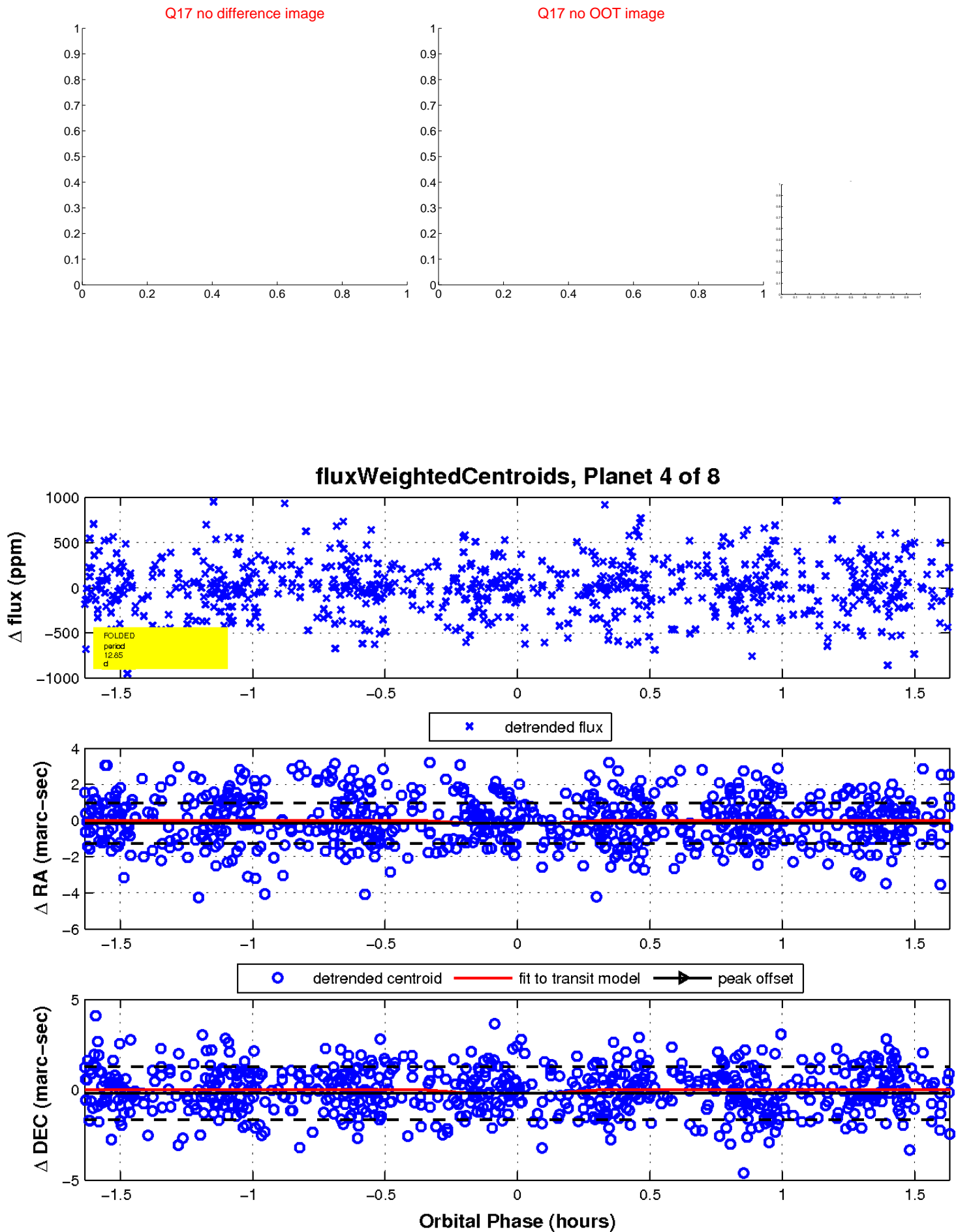
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

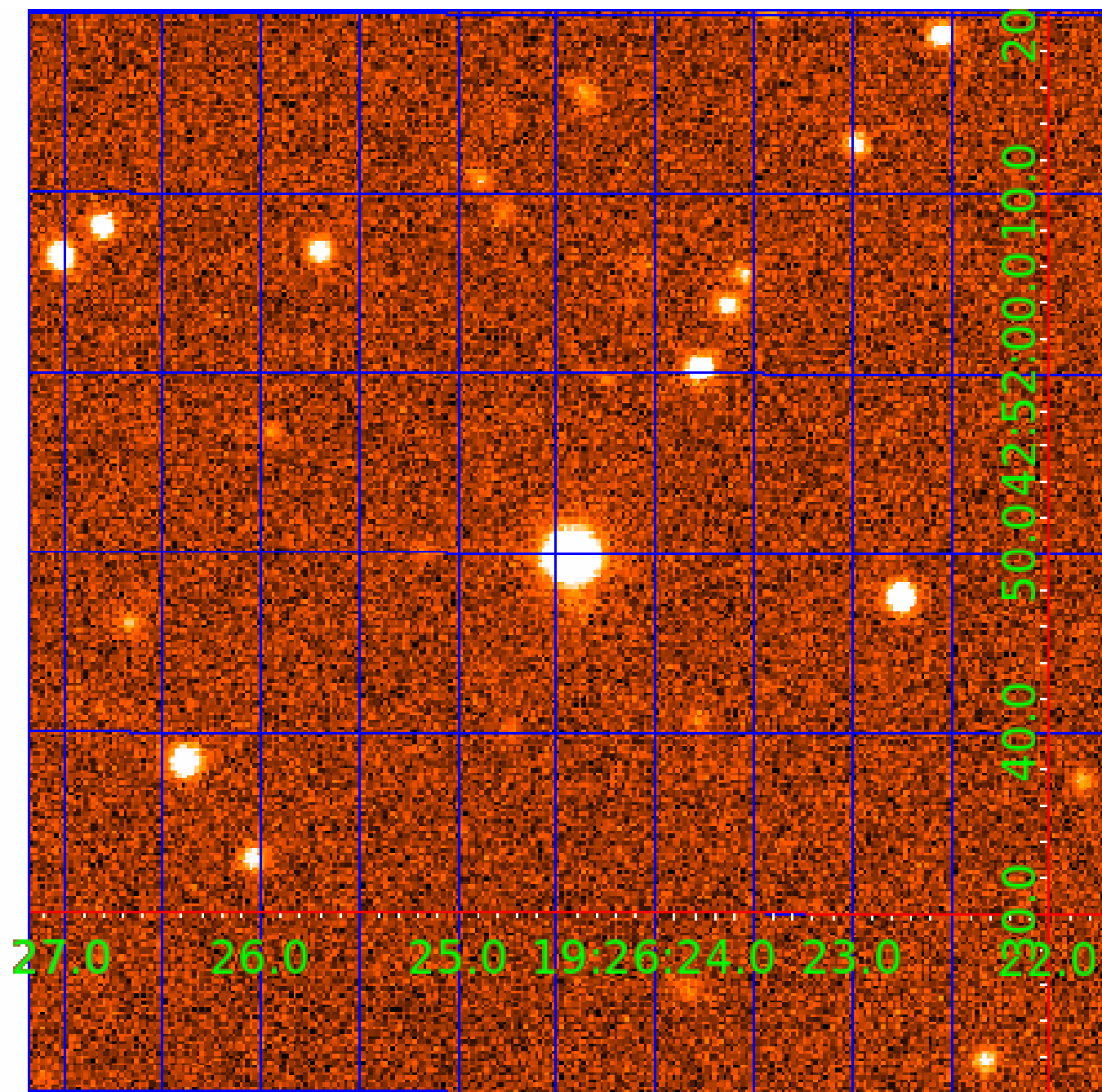


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007281454

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})
007281454-01	OBS	3055.01	0.566695	131.938748	8.1	4.252	10.4	3.0	0.55	5000	0.16	1380.46
007281454-02	OBS	No	10.739148	137.537077	210.7	1.193	11.1	7.7	0.55	5000	0.85	27.32
007281454-03	OBS	No	5.789677	133.205705	680.8	0.712	15.0	17.3	0.55	5000	1.46	62.27
007281454-04	OBS	No	12.853532	142.647659	818.3	0.545	12.5	20.2	0.55	5000	1.65	21.50
007281454-05	OBS	No	5.276778	131.556097	412.6	0.736	14.5	15.6	0.55	5000	1.17	70.47
007281454-06	OBS	No	4.369578	134.114310	246.7	0.943	12.5	12.0	0.55	5000	0.87	90.62
007281454-07	OBS	No	8.141625	136.843060	217.1	1.522	13.5	8.9	0.55	5000	0.81	39.52
007281454-08	OBS	No	3.770951	134.193884	109.6	0.575	8.4	4.0	0.55	5000	0.61	110.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007281454-01	OBS	FP	0.00	1	0	0	1	LPP_DV—EPHEM_MATCH
007281454-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
007281454-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007281454-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007281454-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007281454-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007281454-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV
007281454-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

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

Ephemeris Match Information For 007281454-05

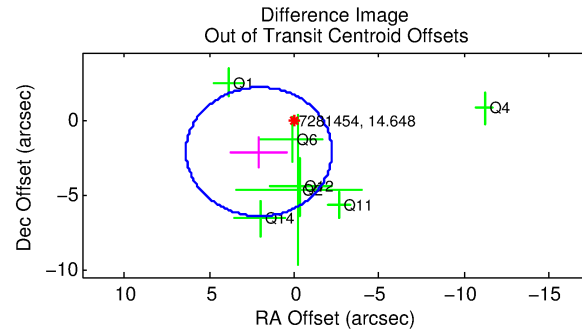
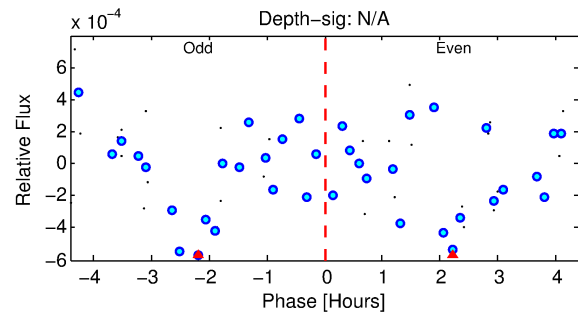
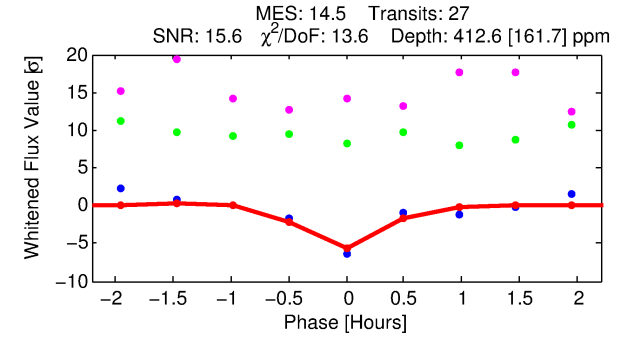
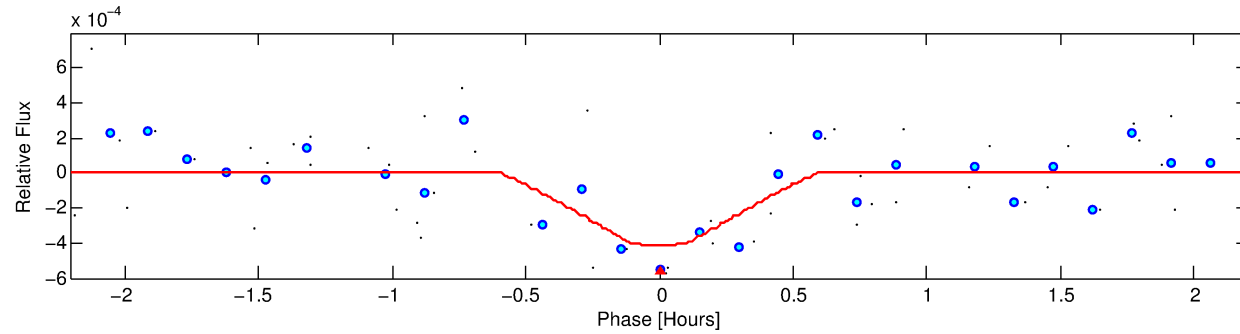
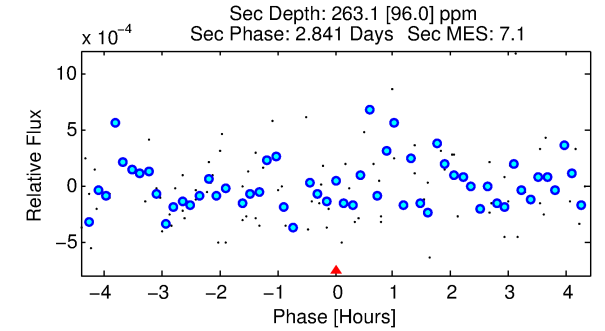
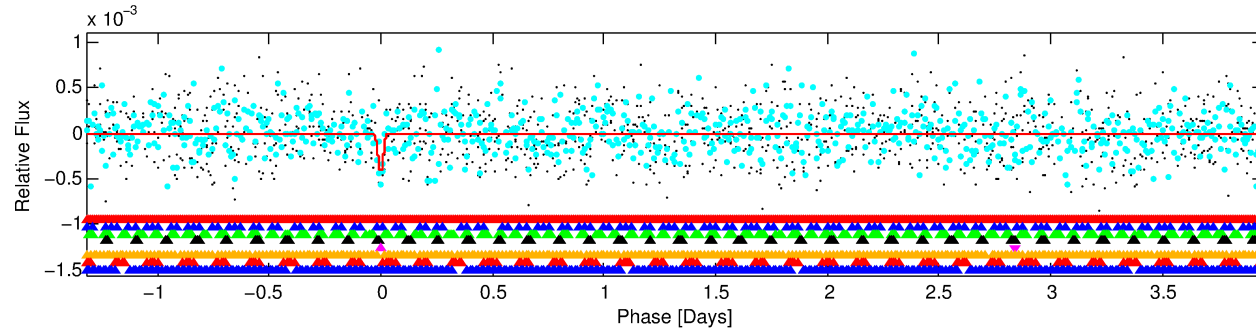
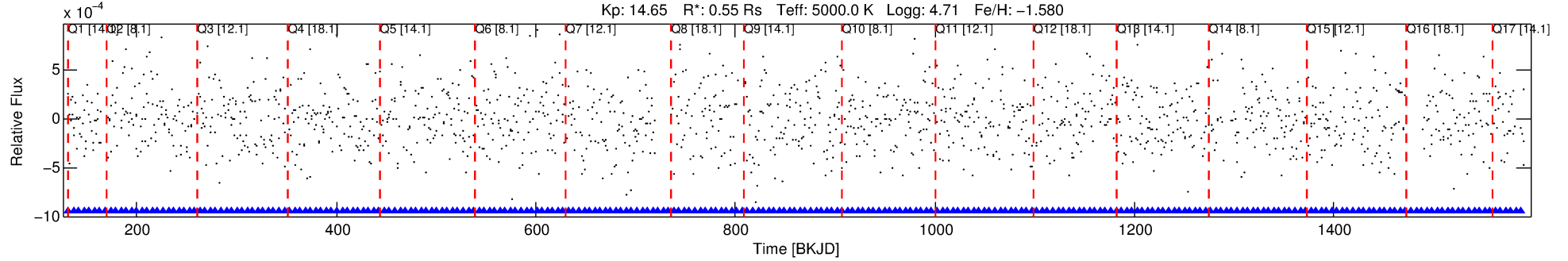
No Significant Match Found

DV One-Page Summary

KIC: 7281454 Candidate: 5 of 8 Period: 5.277 d

KOI: K03055 Corr: No Ephemeris Match

Kp: 14.65 R*: 0.55 Rs Teff: 5000.0 K Logg: 4.71 Fe/H: -1.580



DV Fit Results:

Period = 5.27678 [0.00006] d
Epoch = 131.5561 [0.0069] BKJD
Rp/R* = 0.0195 [0.1073]
a/R* = 48.41 [1301.18]
b = 0.51 [38.91]
Seff = 70.47 [10.31]
Teff = 739 [27] K
Rp = 1.17 [6.43] Re
a = 0.0489 [0.0026] AU
Ag = 254.99 [2812.26] [0.09σ]
Teffp = 4565 [12586] K [0.30σ]

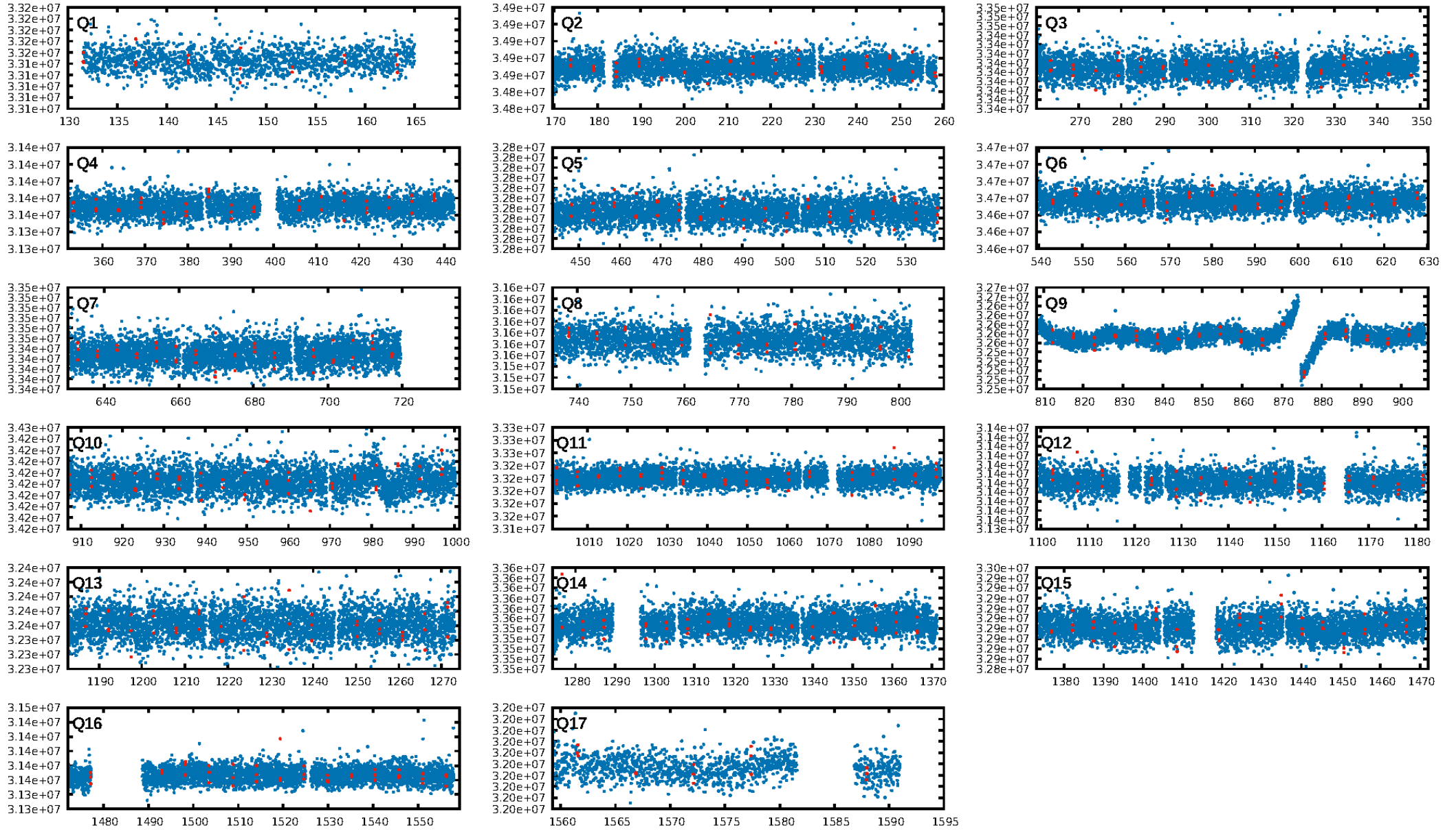
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [18.20σ]
LongPeriod-sig: 100.0% [12.03σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: 3.46e-08
RollingBand-fgt: 1.00 [27/27]
GhostDiagnostic-chr: -0.8616
Centroid-sig: 1.5%
Centroid-so: 0.796 arcsec [1.49σ]
OotOffset-rm: 2.971 arcsec [2.07σ]
KicOffset-rm: 2.961 arcsec [1.77σ]
OotOffset-st: 3/1/2/1 [7]
KicOffset-st: 3/1/2/1 [7]
DiffImageQuality-fgm: 0.00 [0/7]
DiffImageOverlap-fno: 0.00 [0/17]

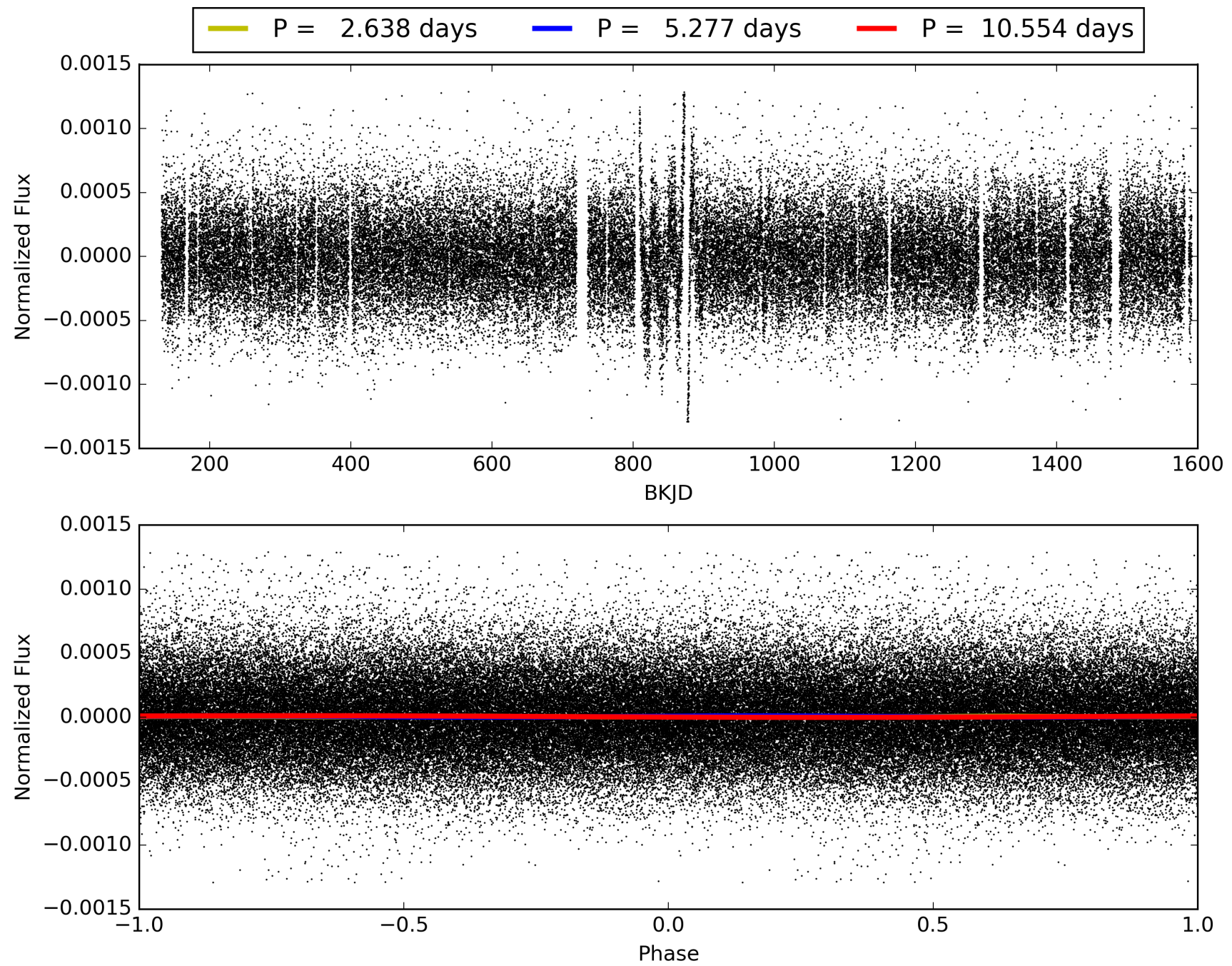
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 10:46:53 Z

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

TCE 007281454-05, PDC Light Curves

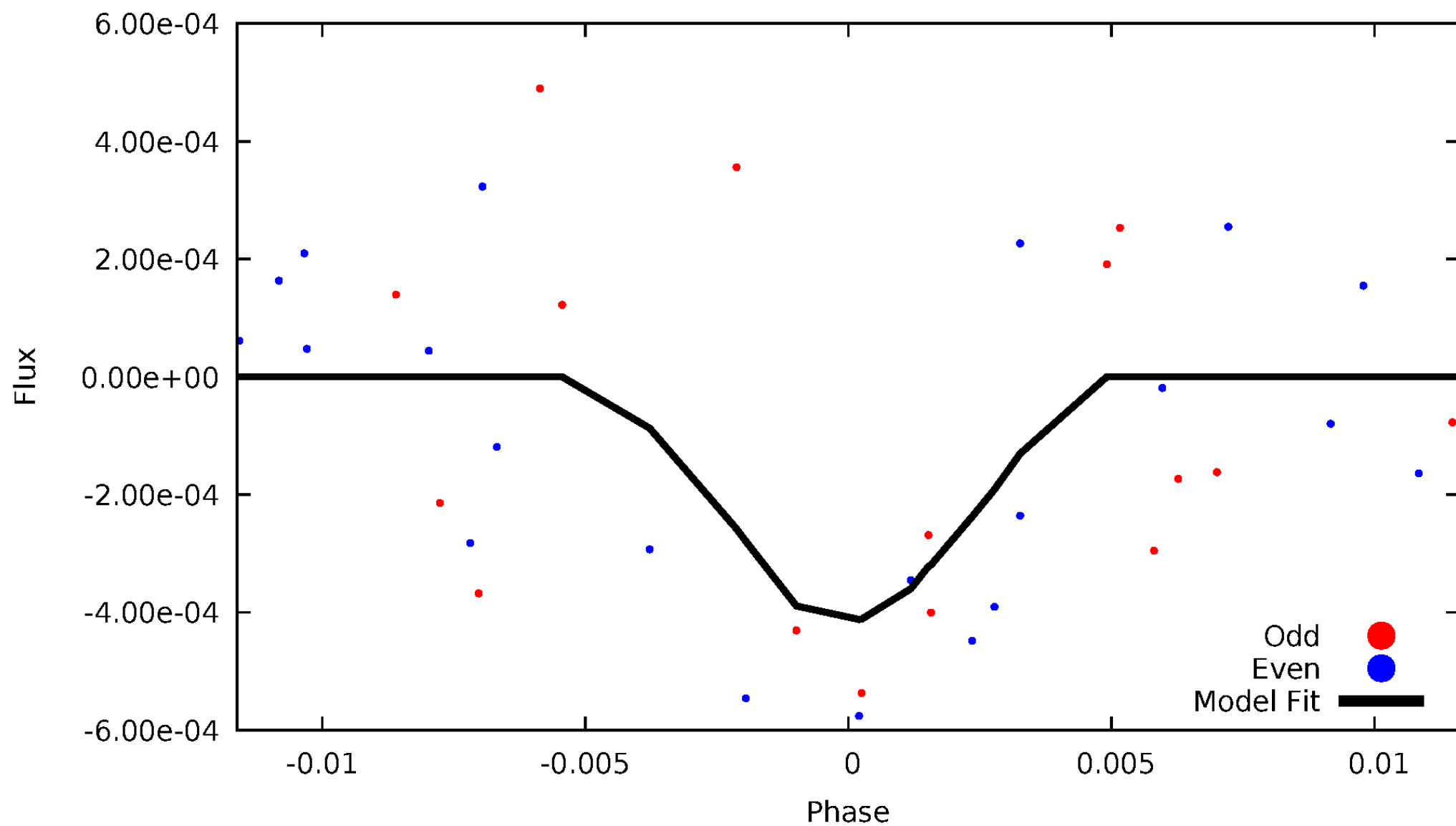


TCE 007281454-05



DV Odd/Even

TCE 007281454-05

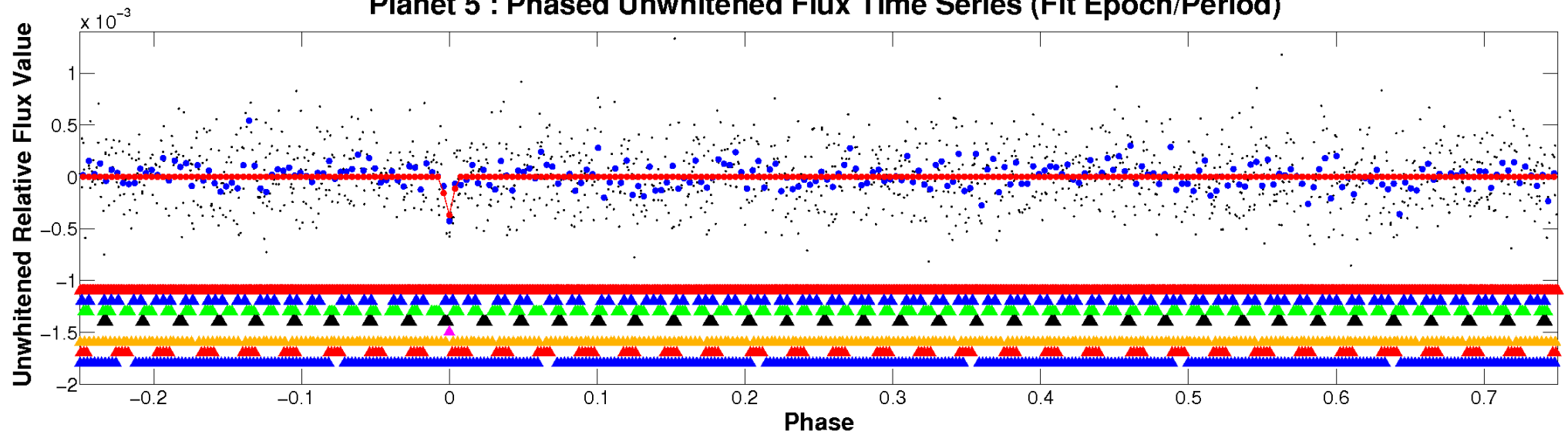


ALT Odd/Even

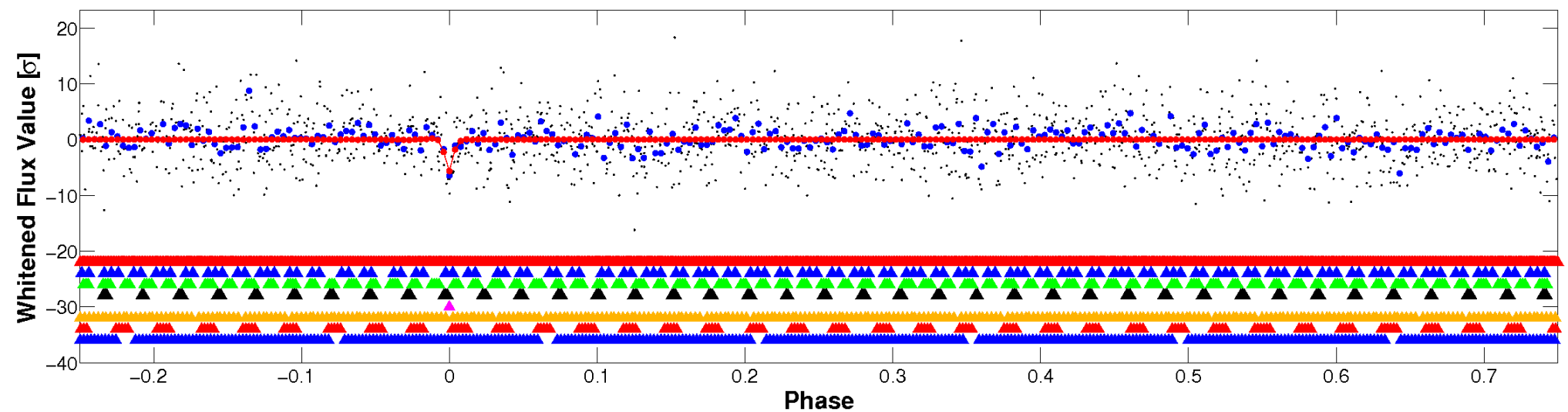
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

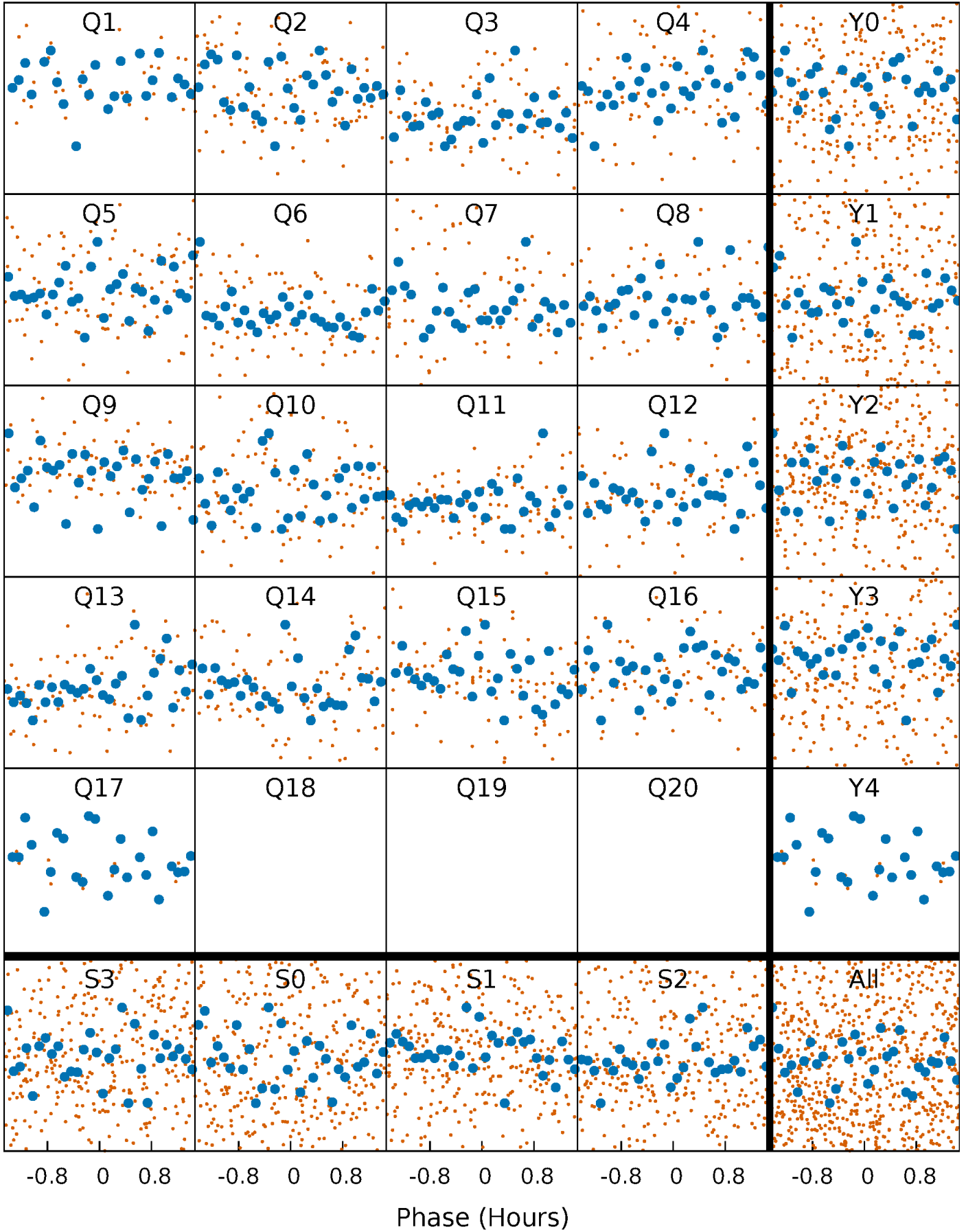


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



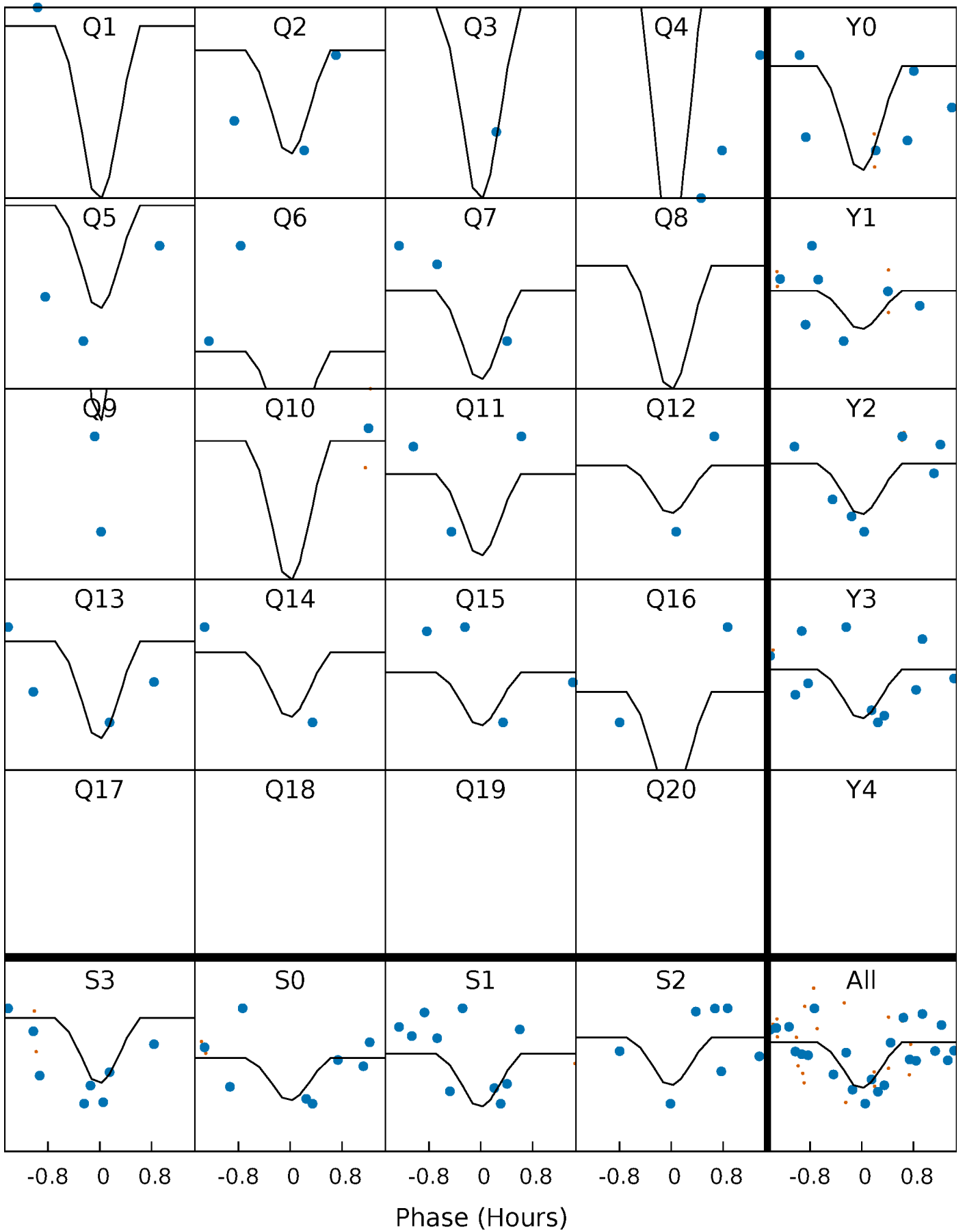
PDC Quarter-Phased Transit Curves

TCE 007281454-05 P= 5.276778 Days $T_0=131.556097$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007281454-05 $P = 5.276778$ Days $T_0 = 131.556097$ (BKJD)

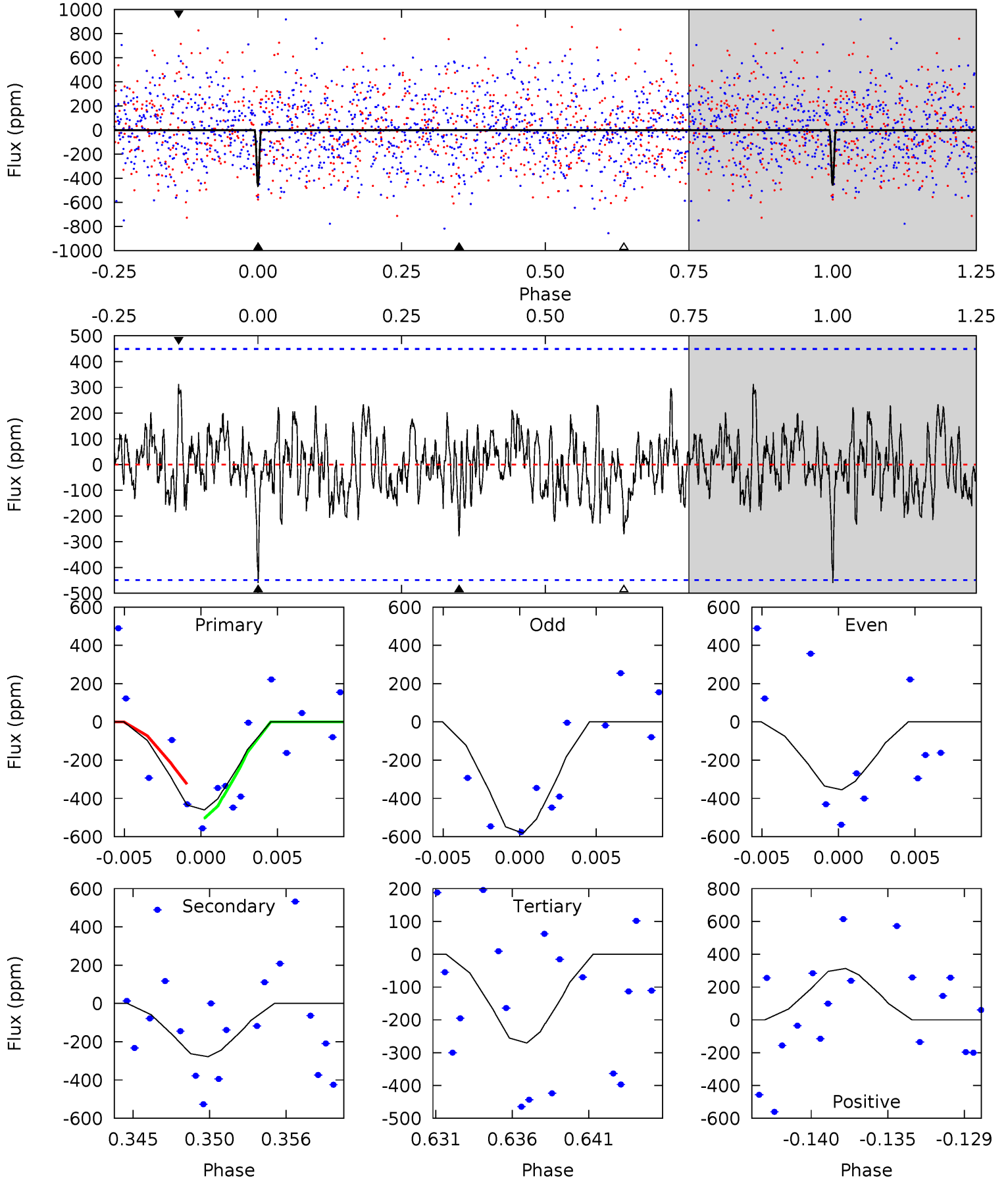


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007281454-05, P = 5.276778 Days, E = 131.556097 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.26	3.18	3.10	3.58	5.14	2.78	1.12	2.17	1.68	0.09	-0.40	1.28	0	0.41	0.82



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007281454

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5000^{+150}_{-150}	$4.708^{+0.049}_{-0.021}$	$-1.580^{+0.300}_{-0.250}$	$0.549^{+0.025}_{-0.030}$	$0.561^{+0.038}_{-0.017}$	$4.773^{+0.785}_{-0.461}$
	+3%/-3%	+1%/-0%	+19%/-16%	+5%/-5%	+7%/-3%	+16%/-10%
Source	PHO1	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 007281454-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-278 ± 87	$4.44^{+5.14}_{-2.98}$	1027^{+35}_{-35}	2989^{+1204}_{-587}	18^{+135}_{-15}
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

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

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

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

DV Centroid Data

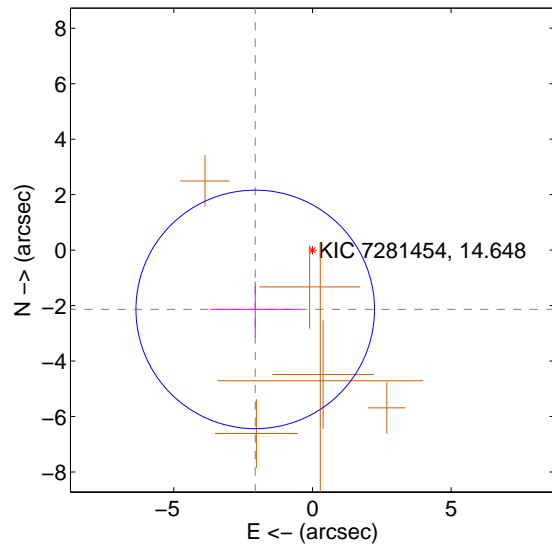
Supplemental centroid analysis for 007281454-05. Kepler magnitude: 14.65. Transit SNR 15.60

There are 0 quarters with good PRF difference image offsets

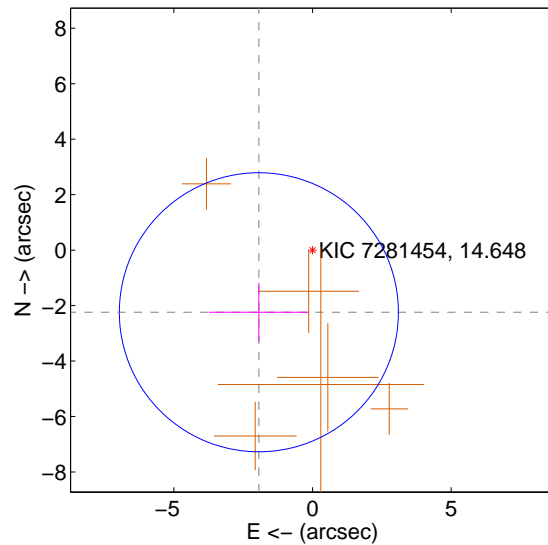
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.971 ± 1.433	2.07	2.063 ± 1.621	-2.139 ± 1.003
PRF-fit source offset from KIC position	2.961 ± 1.677	1.77	1.934 ± 1.801	-2.242 ± 1.064
photometric centroid source offset	0.80 ± 0.53	1.49	0.00 ± 0.55	0.80 ± 0.53

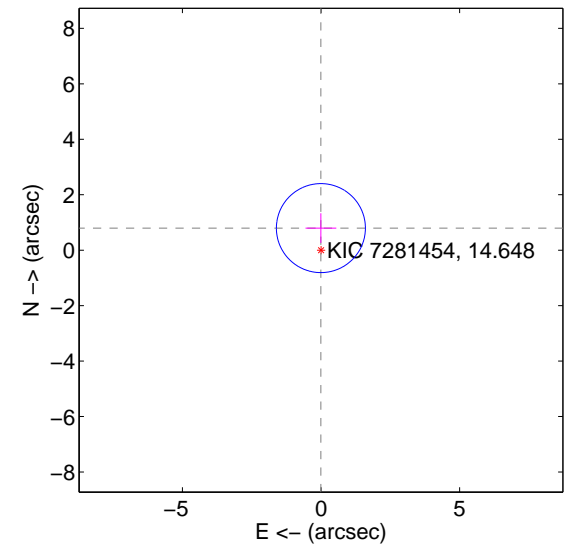
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

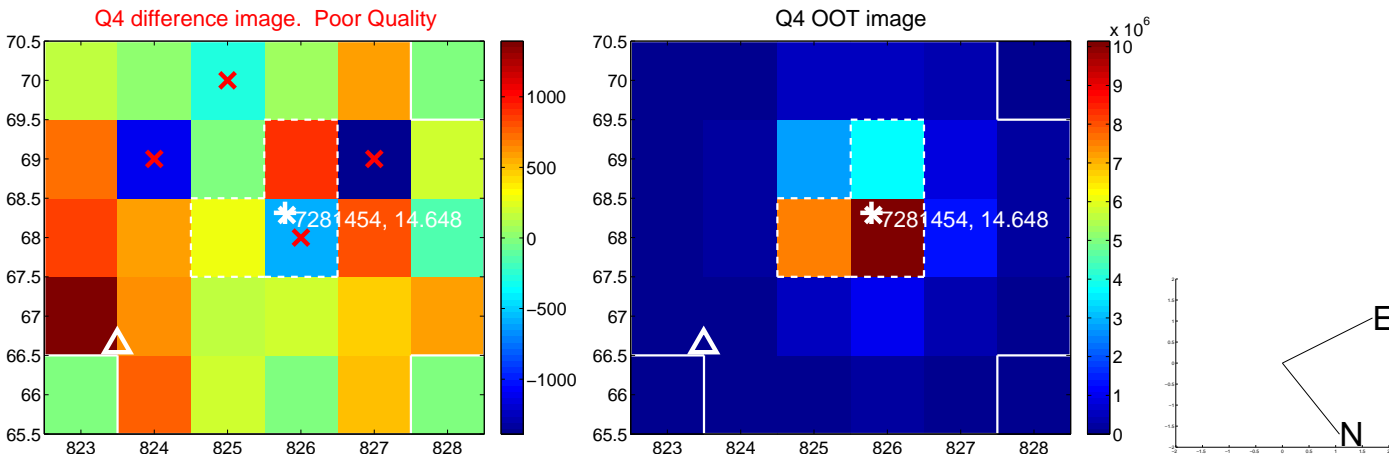
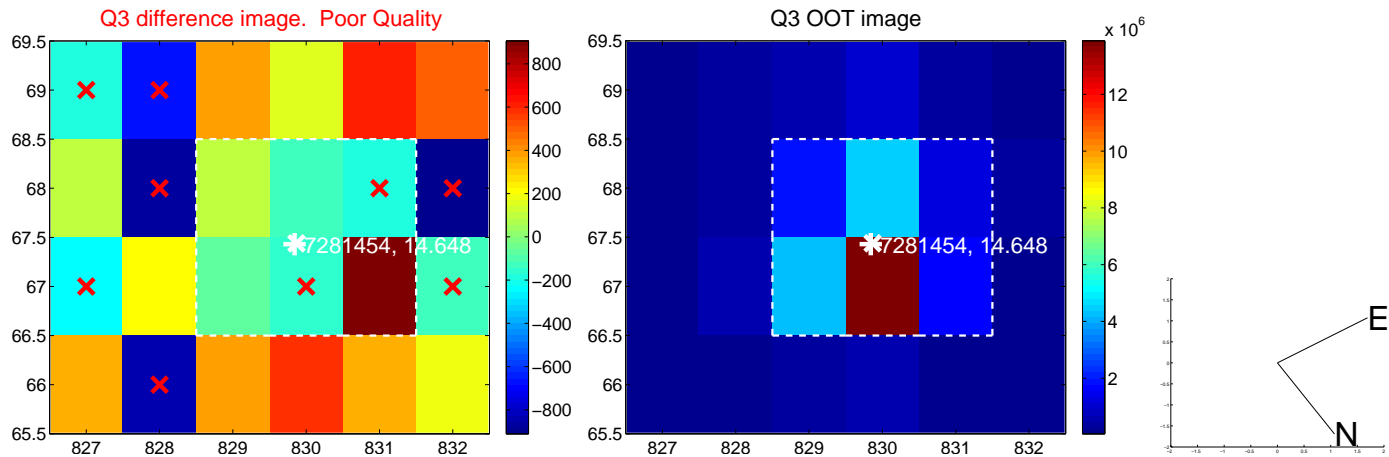
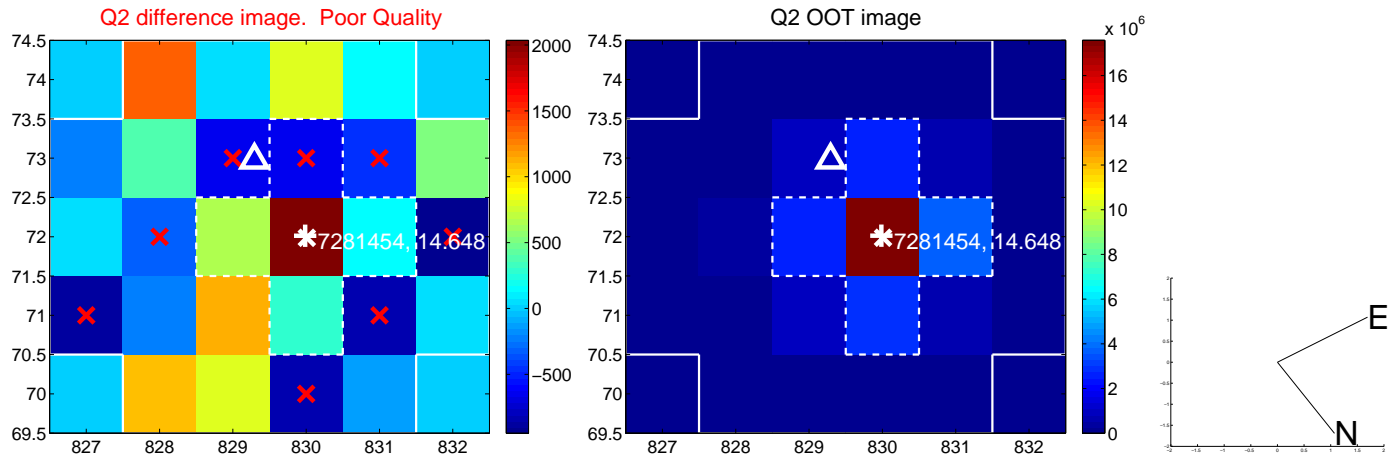
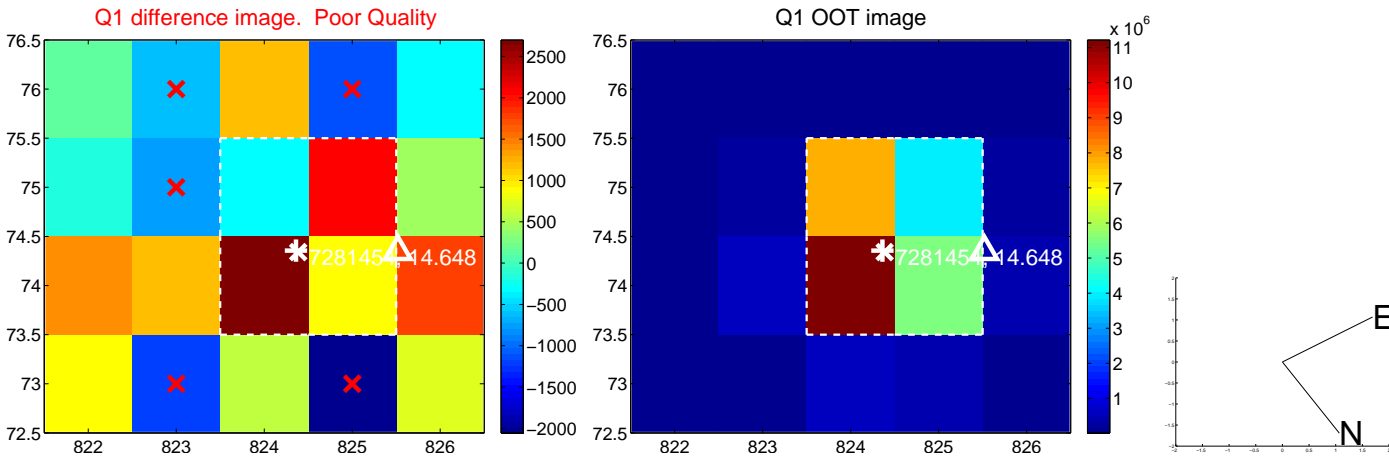


offset from photometric centroids

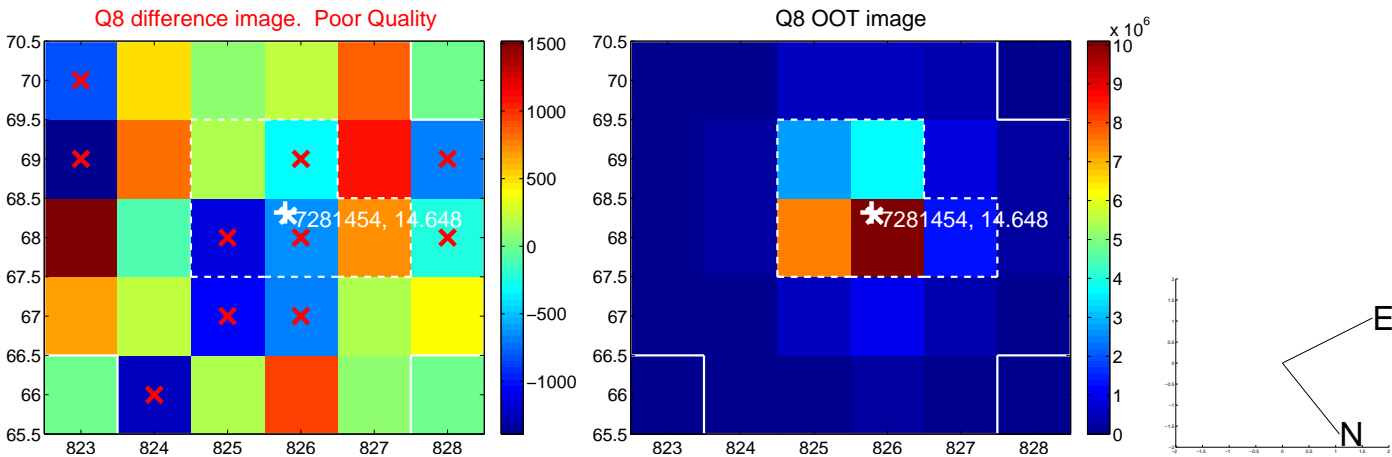
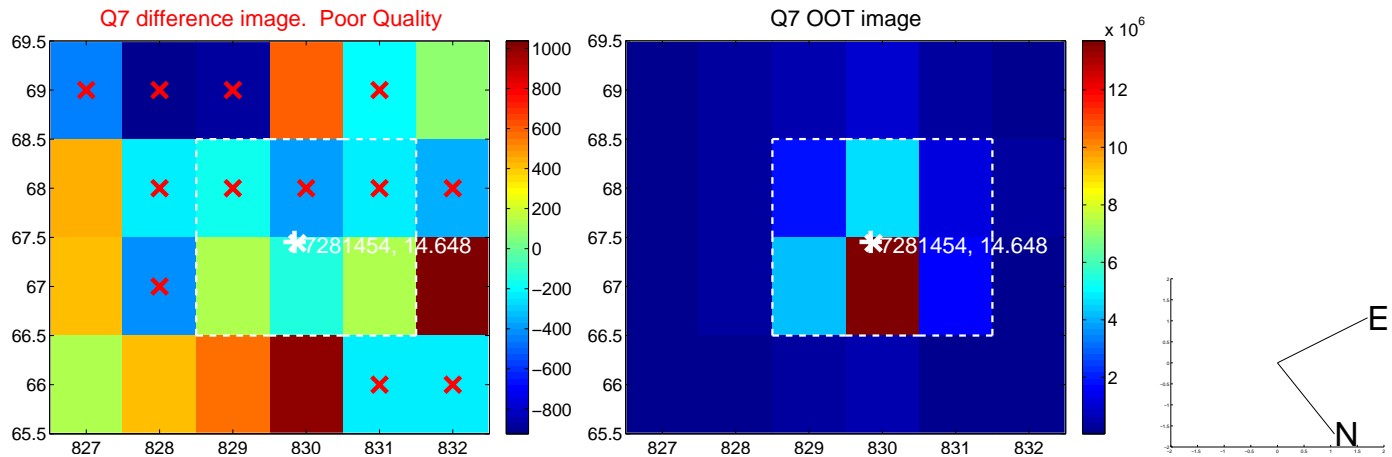
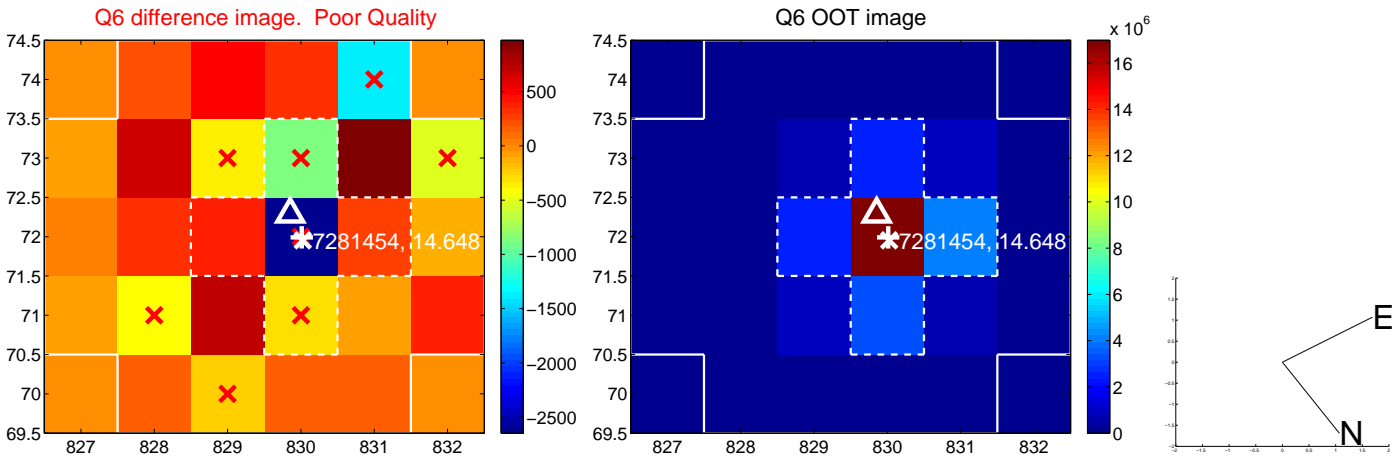
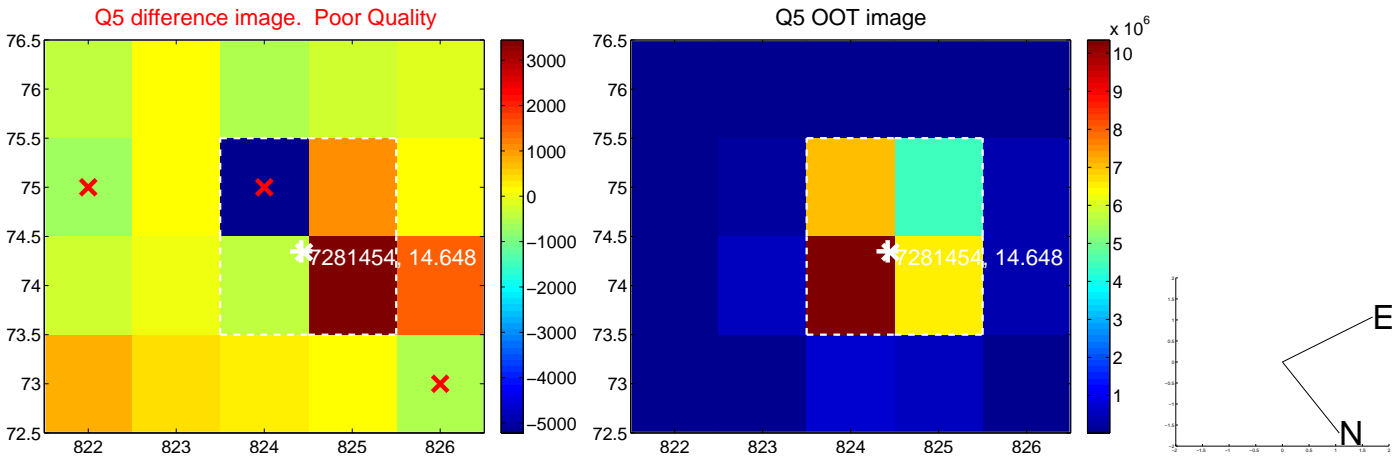


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

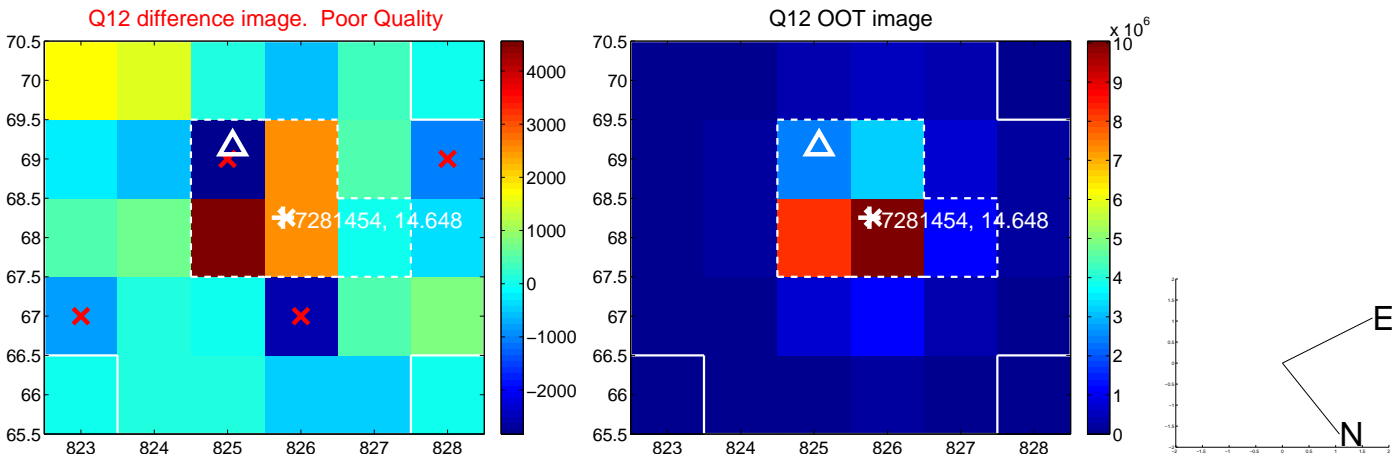
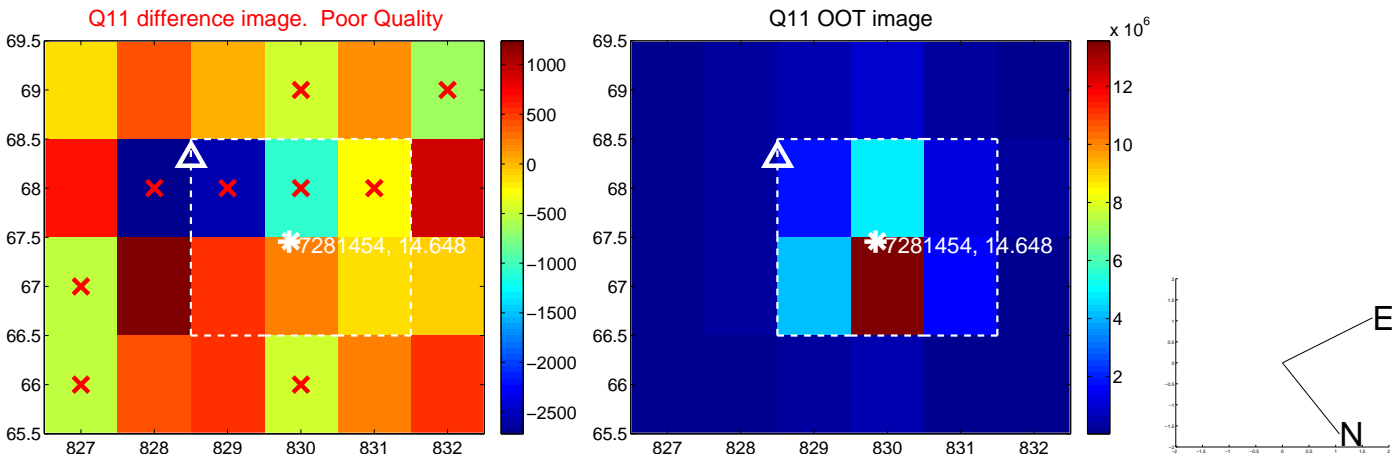
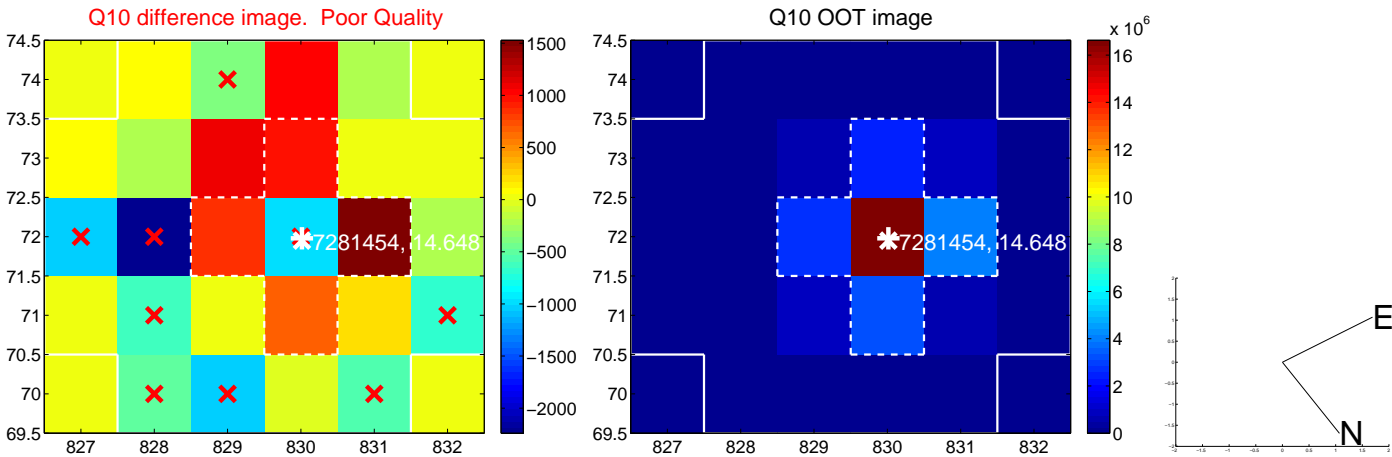
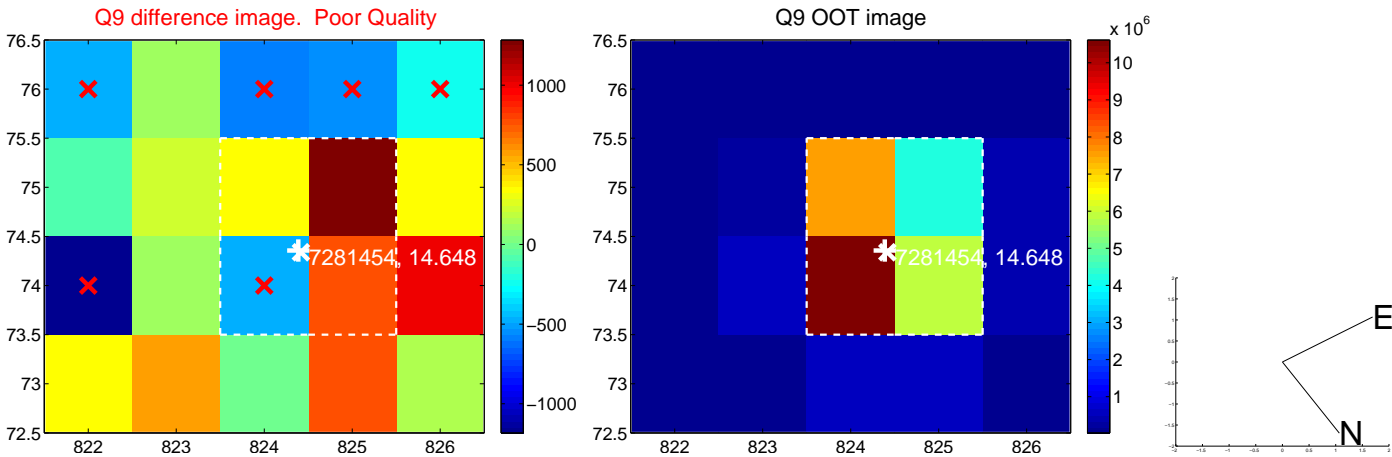
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



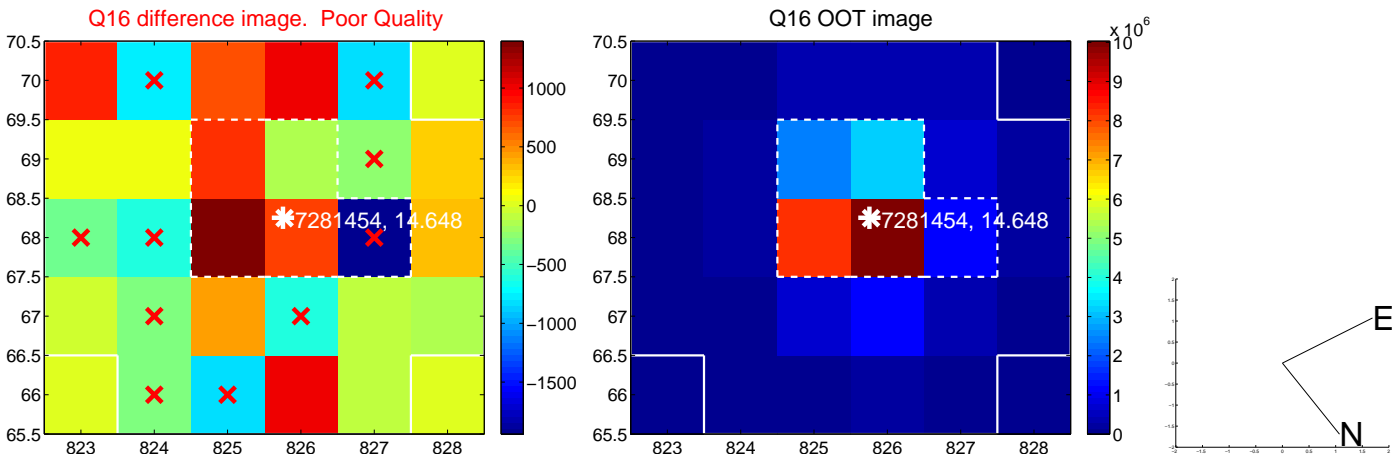
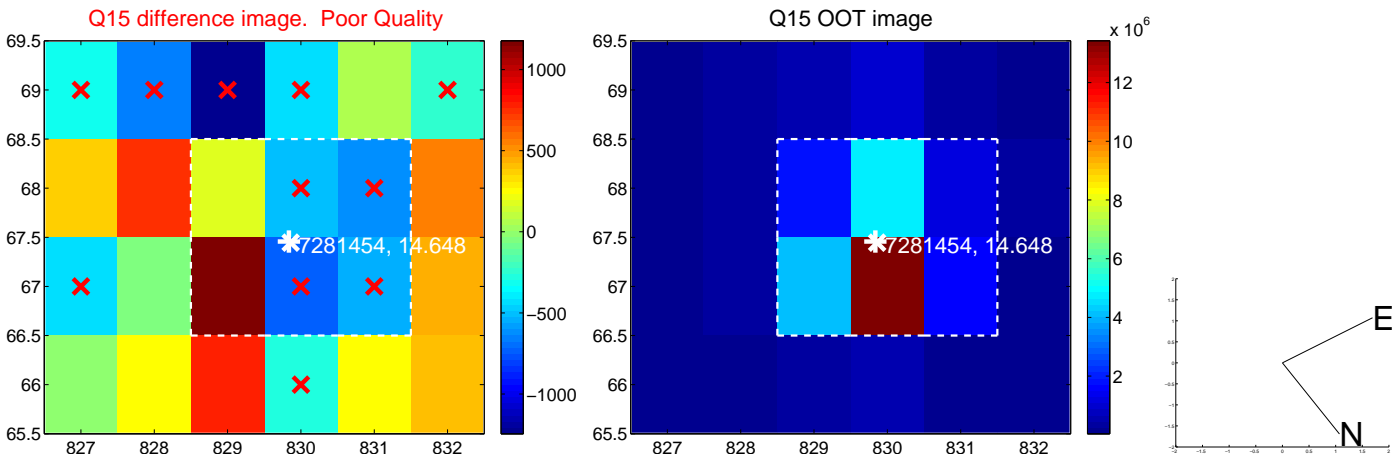
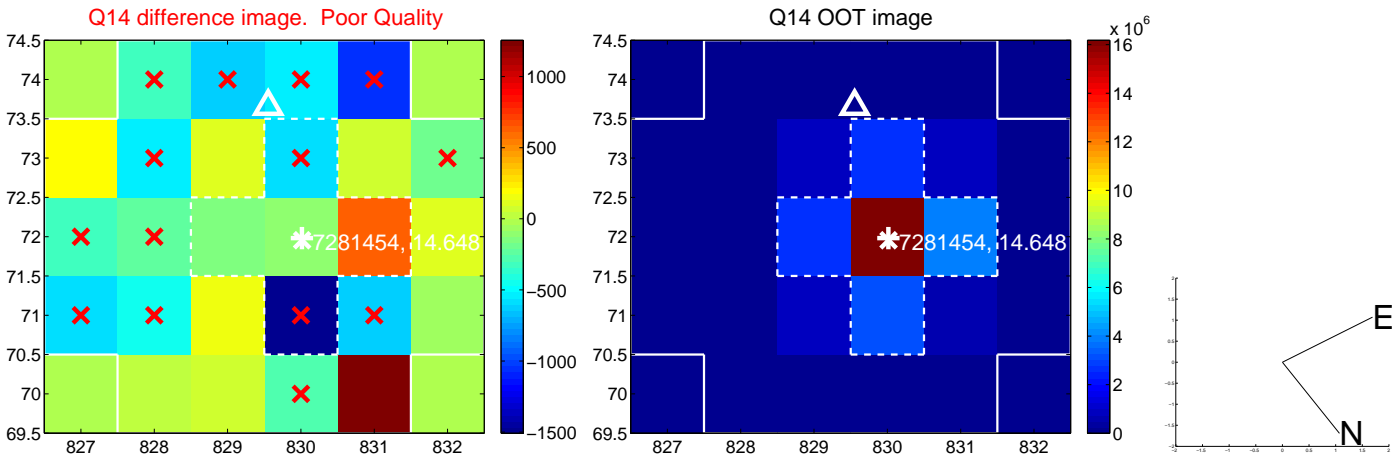
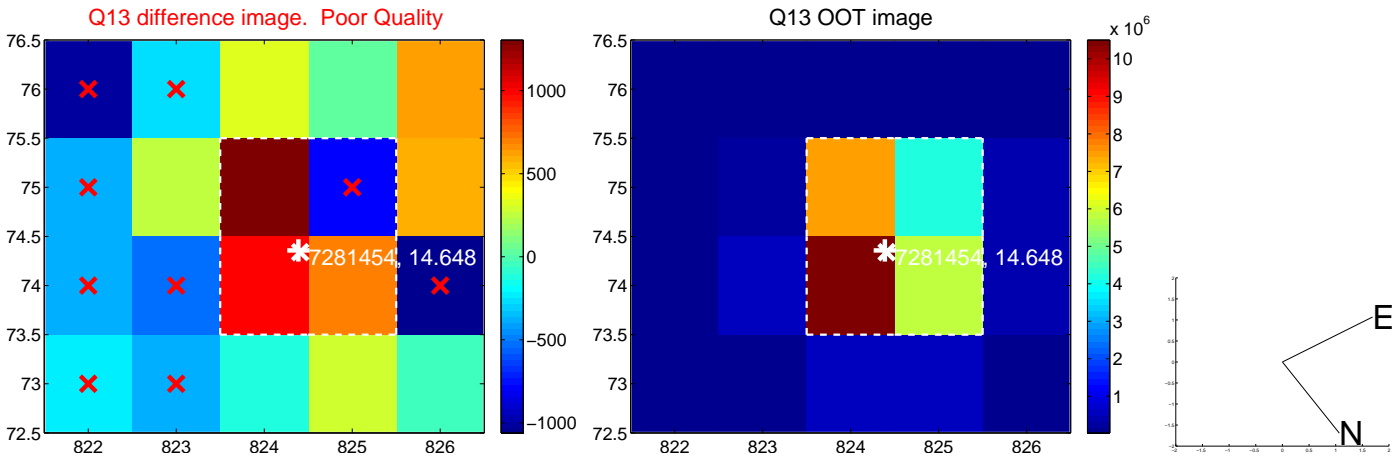
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



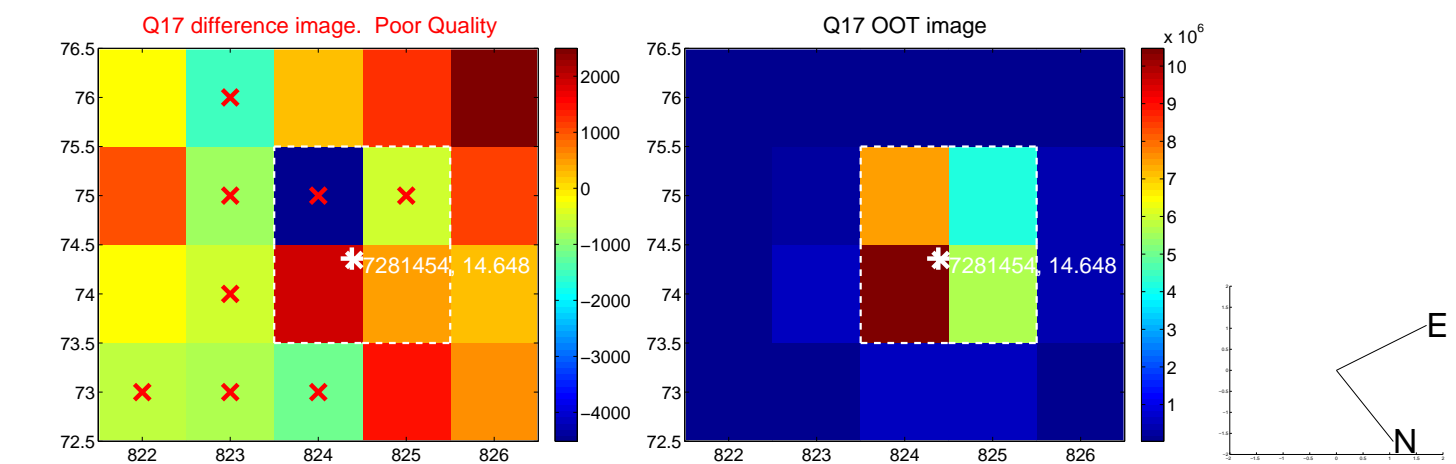
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



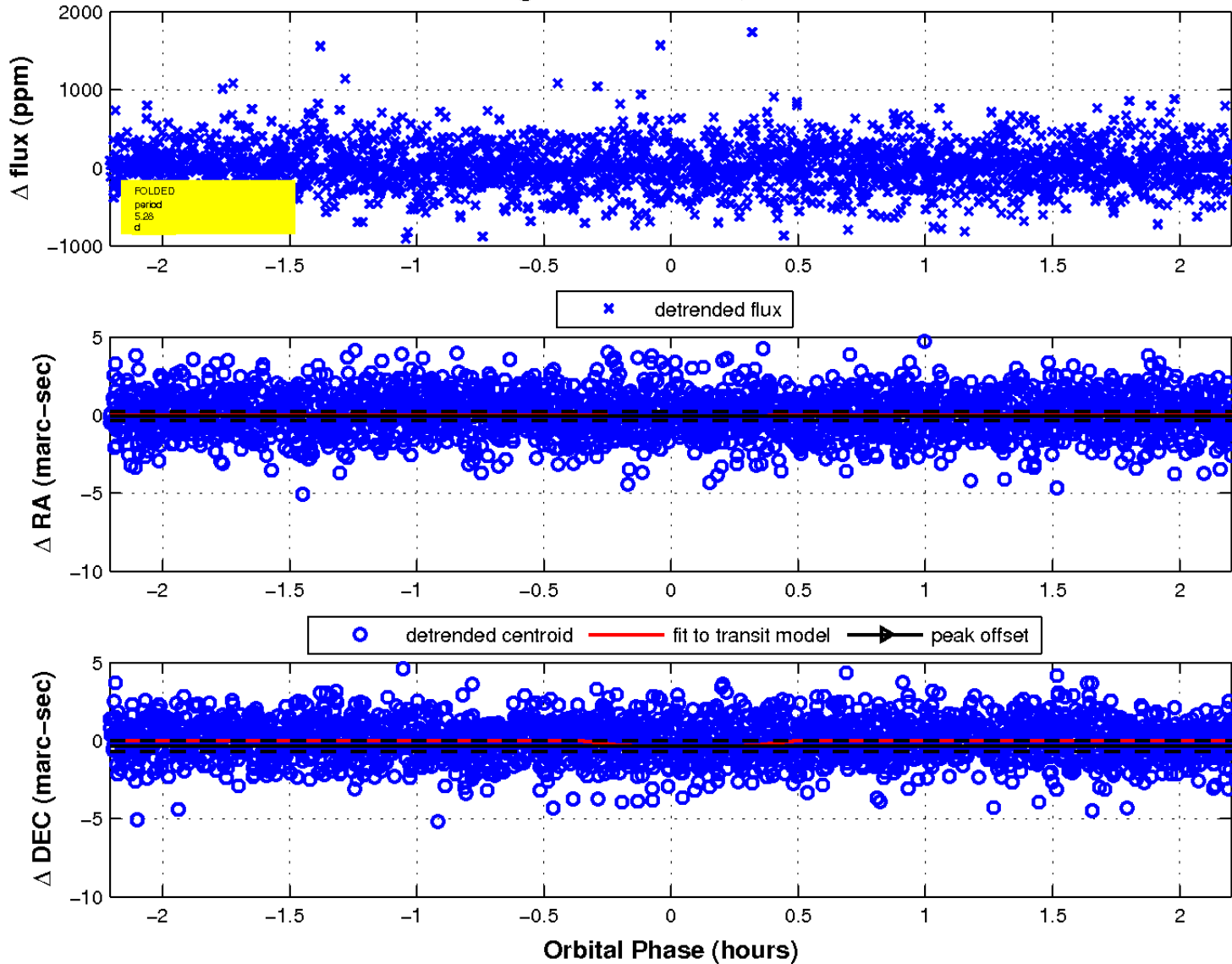
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

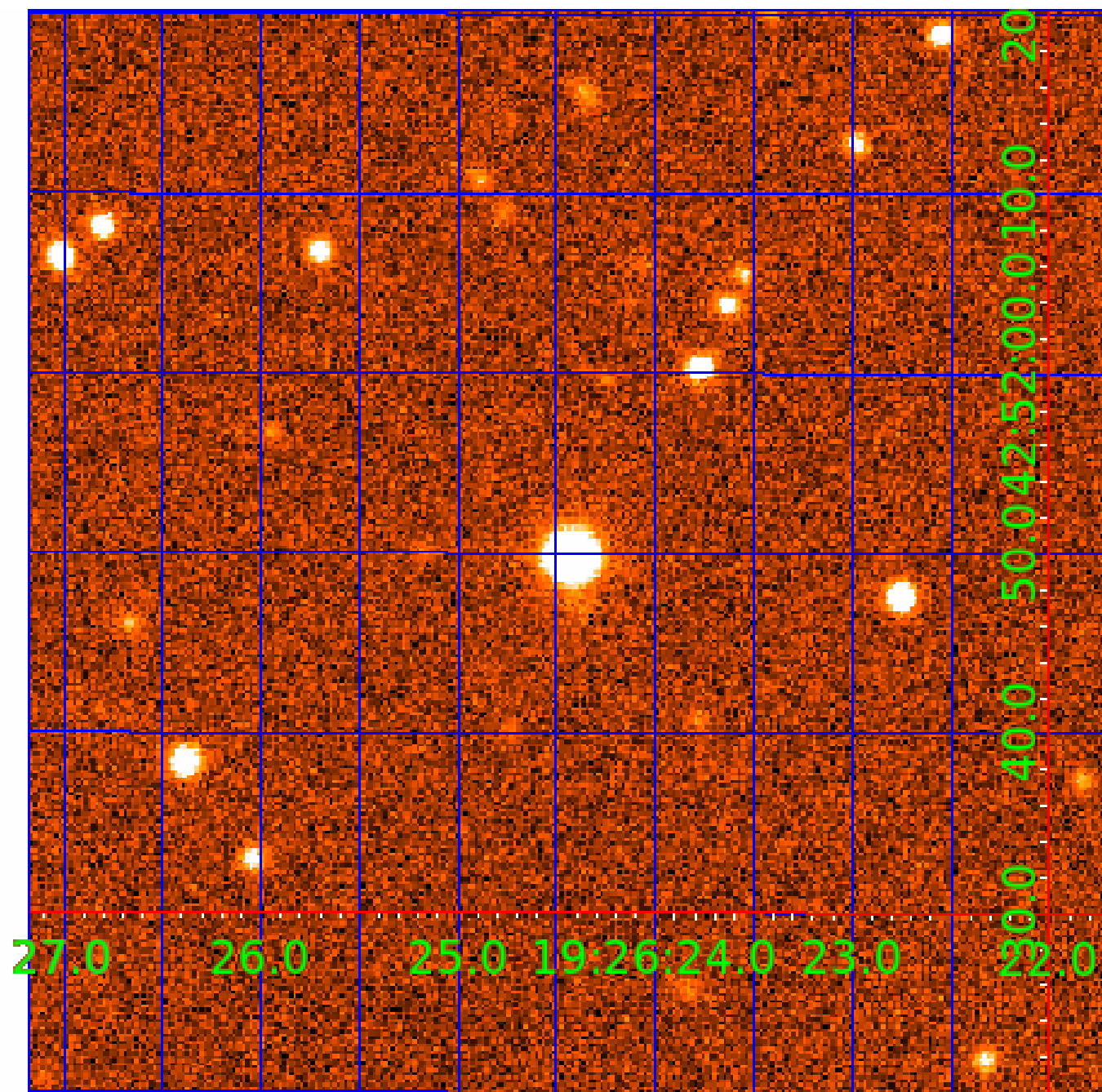


fluxWeightedCentroids, Planet 5 of 8



UKIRT Image

Declination



KIC 007281454

Q1-17 DR25 TCE Parameters

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007281454-03	OBS	No	5.789677	133.205705	680.8	0.712	15.0	17.3	0.55	5000	1.46	62.27
007281454-04	OBS	No	12.853532	142.647659	818.3	0.545	12.5	20.2	0.55	5000	1.65	21.50
007281454-05	OBS	No	5.276778	131.556097	412.6	0.736	14.5	15.6	0.55	5000	1.17	70.47
007281454-06	OBS	No	4.369578	134.114310	246.7	0.943	12.5	12.0	0.55	5000	0.87	90.62
007281454-07	OBS	No	8.141625	136.843060	217.1	1.522	13.5	8.9	0.55	5000	0.81	39.52
007281454-08	OBS	No	3.770951	134.193884	109.6	0.575	8.4	4.0	0.55	5000	0.61	110.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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007281454-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
007281454-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007281454-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007281454-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007281454-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007281454-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV
007281454-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

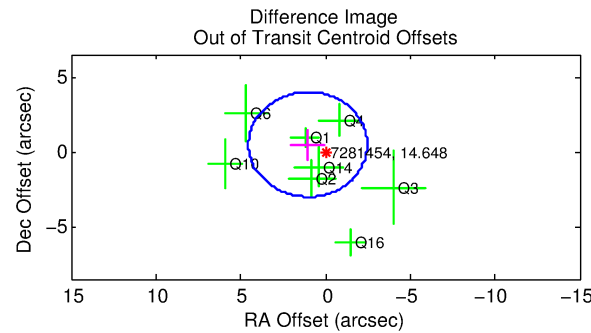
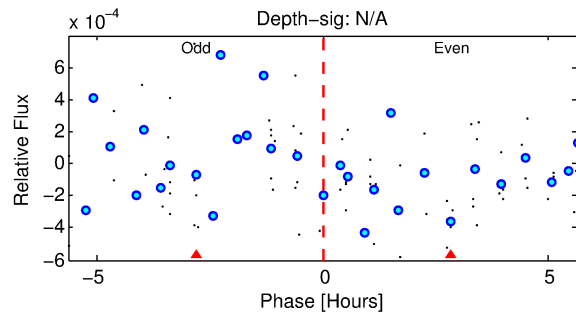
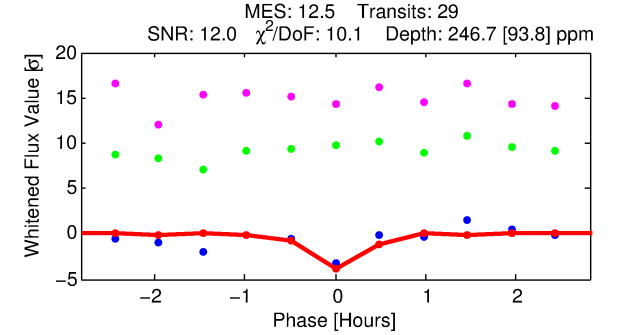
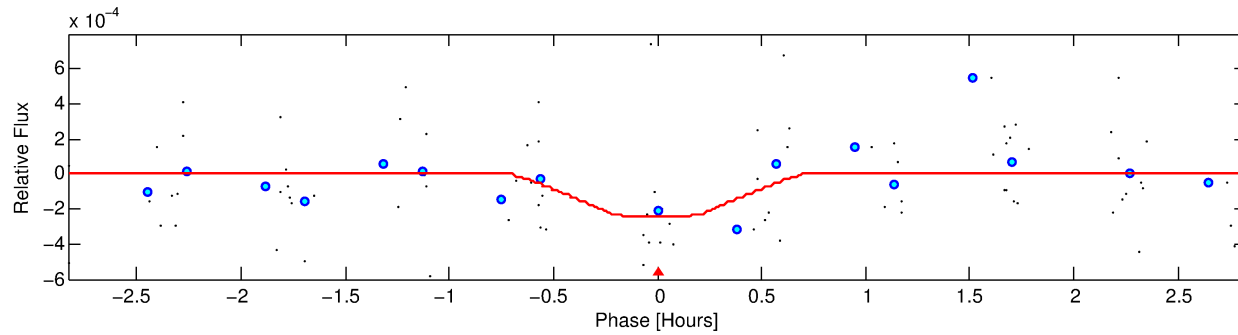
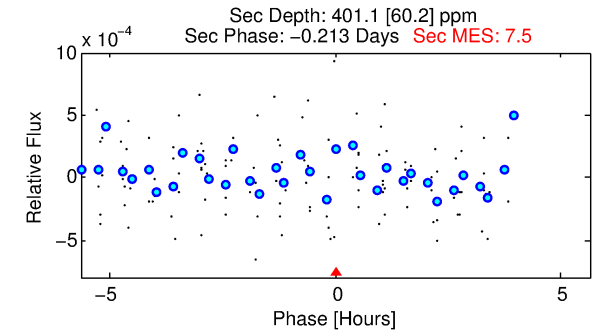
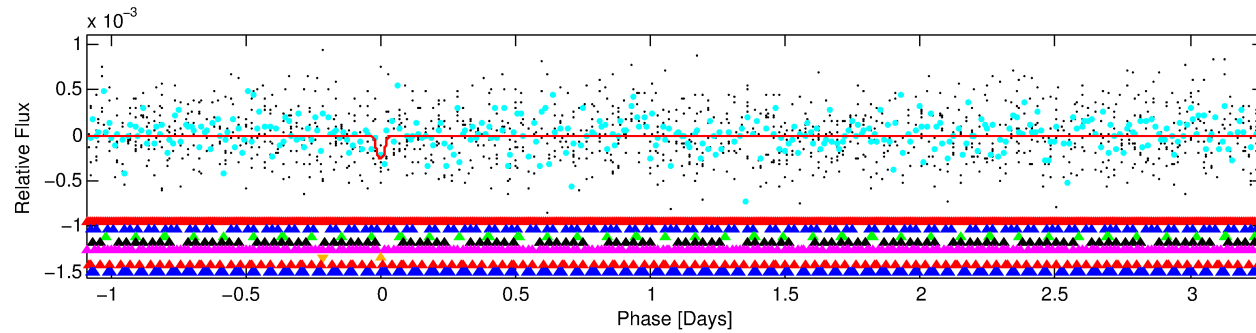
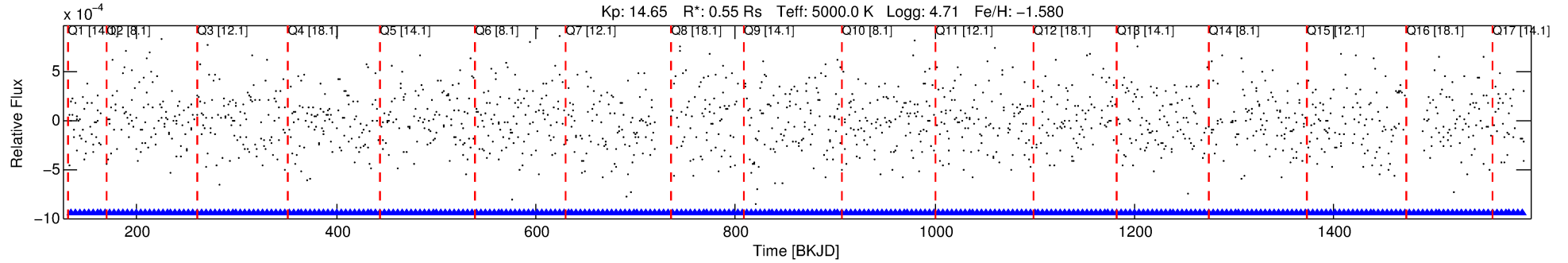
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007281454-06

No Significant Match Found

DV One-Page Summary

KIC: 7281454 Candidate: 6 of 8 Period: 4.370 d
KOI: K03055 Corr: No Ephemeris Match



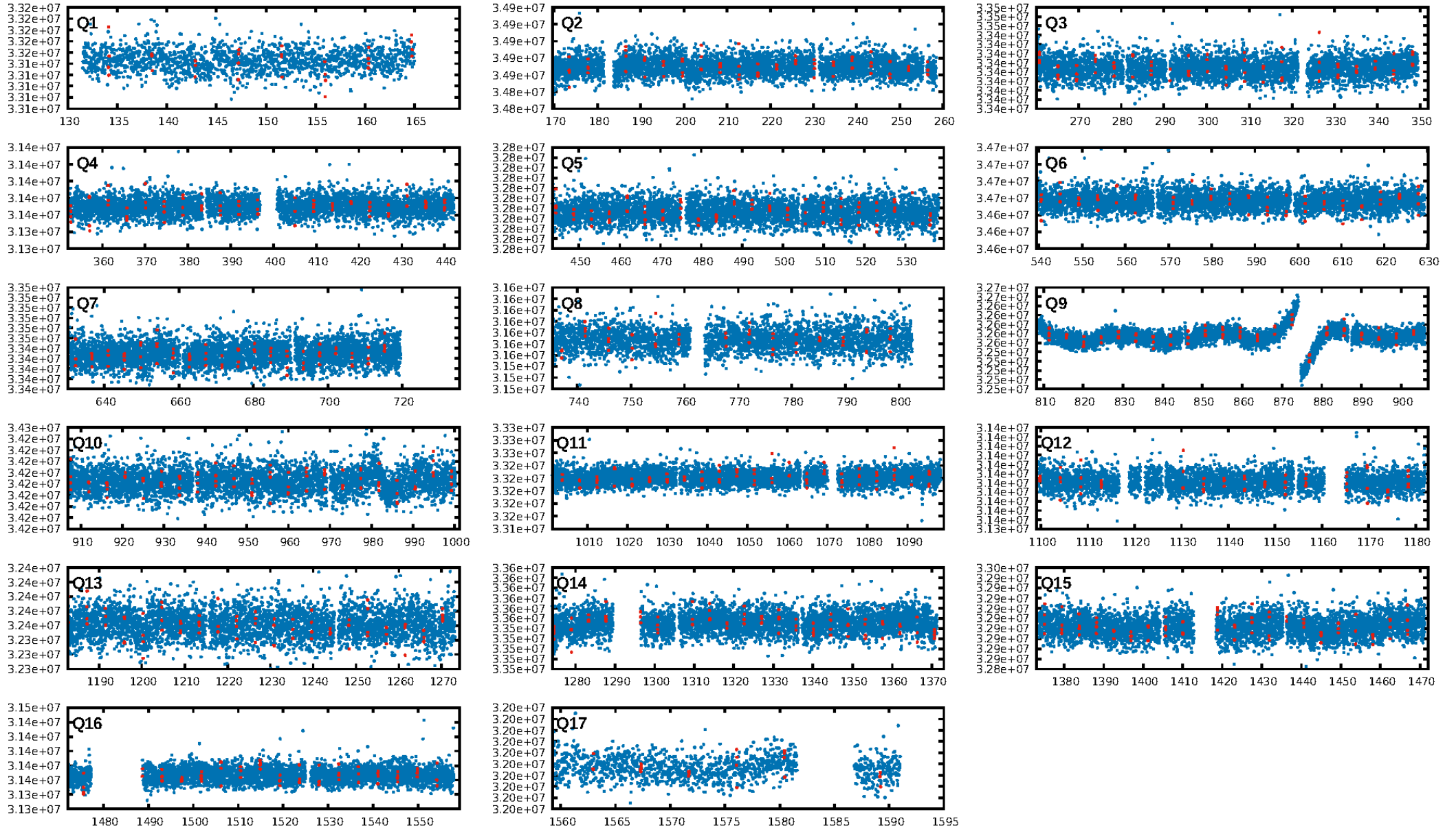
DV Fit Results:

Period = 4.36958 [0.00007] d
Epoch = 134.1143 [0.0100] BKJD
Rp/R* = 0.0145 [0.0732]
a/R* = 35.76 [858.38]
b = 0.09 [264.76]
Seff = 90.62 [13.25]
Teff = 787 [29] K
Rp = 0.87 [4.38] Re
a = 0.0432 [0.0023] AU
Ag = 546.09 [5518.09] [0.10σ]
Teffp = 5880 [14855] K [0.34σ]

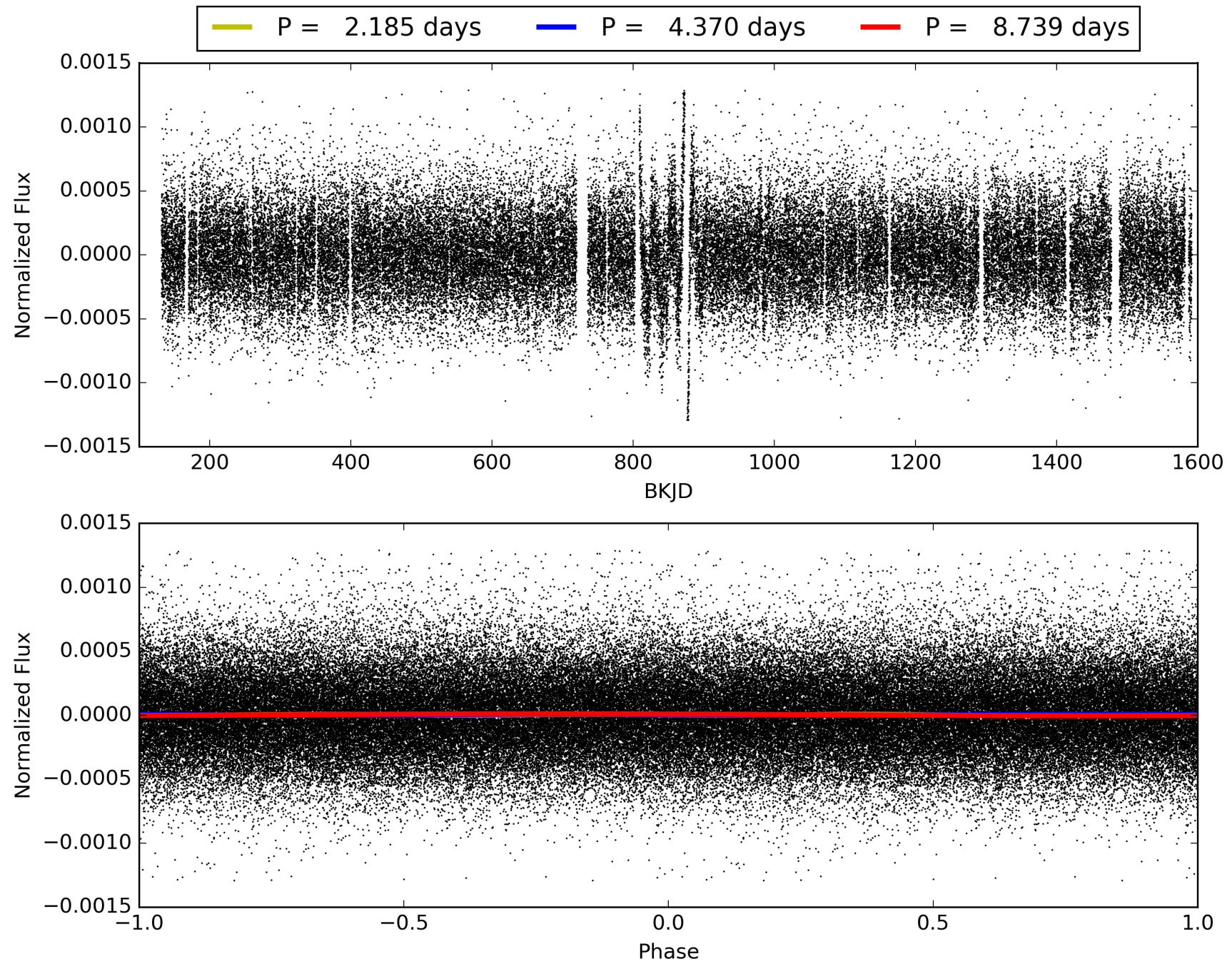
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [13.00σ]
LongPeriod-sig: 100.0% [18.20σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.1%
Bootstrap-pfa: 1.06e-06
RollingBand-fgt: 1.00 [28/28]
GhostDiagnostic-chr: -4.775
Centroid-sig: 7.3%
Centroid-so: 0.909 arcsec [1.29σ]
OotOffset-rm: 1.141 arcsec [0.98σ]
KicOffset-rm: 1.081 arcsec [0.91σ]
OotOffset-st: 4/1/2/1 [8]
KicOffset-st: 4/1/2/1 [8]
DiffImageQuality-fgm: 0.12 [1/8]
DiffImageOverlap-fno: 0.00 [0/17]

TCE 007281454-06, PDC Light Curves

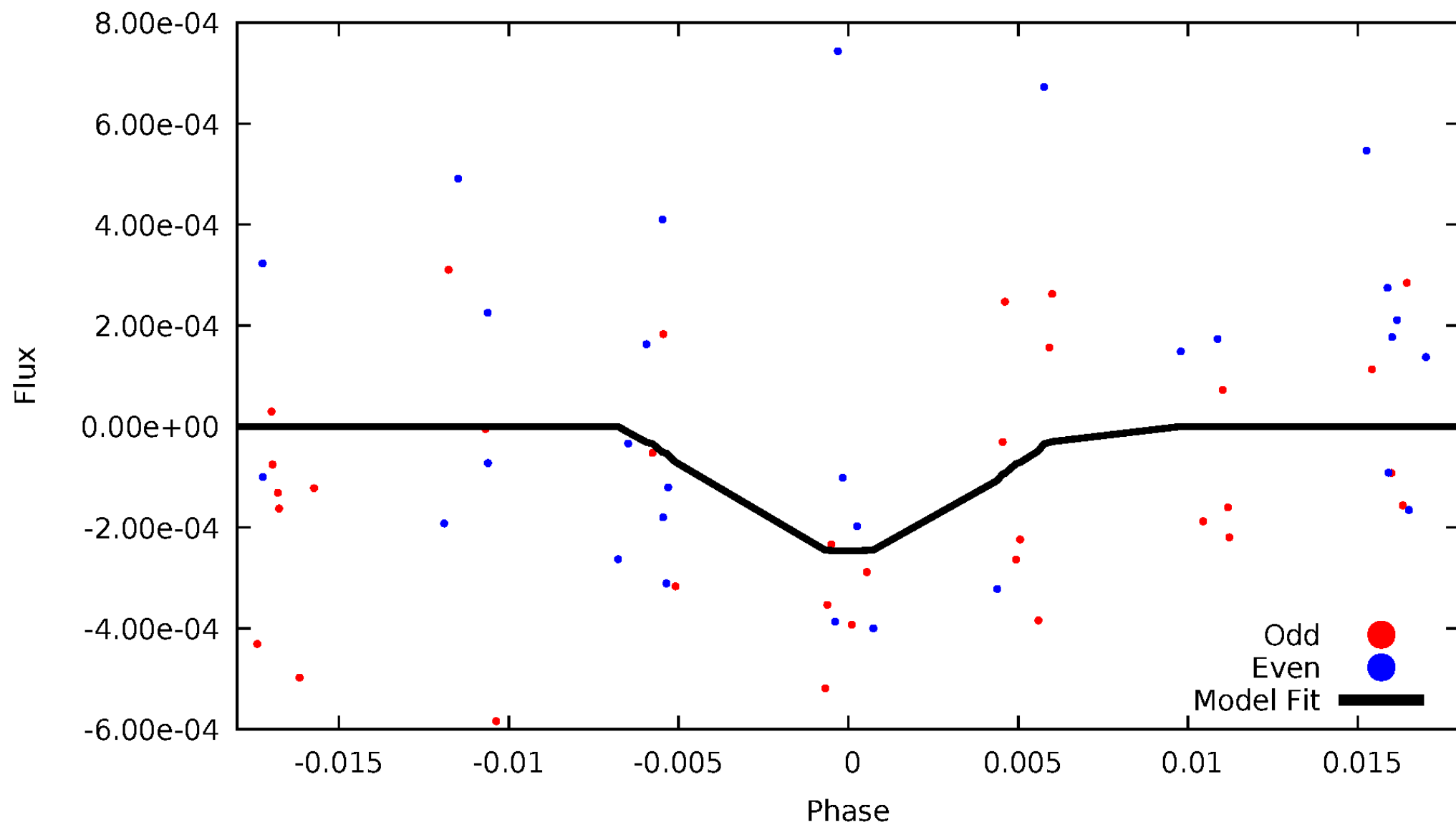


TCE 007281454-06



DV Odd/Even

TCE 007281454-06

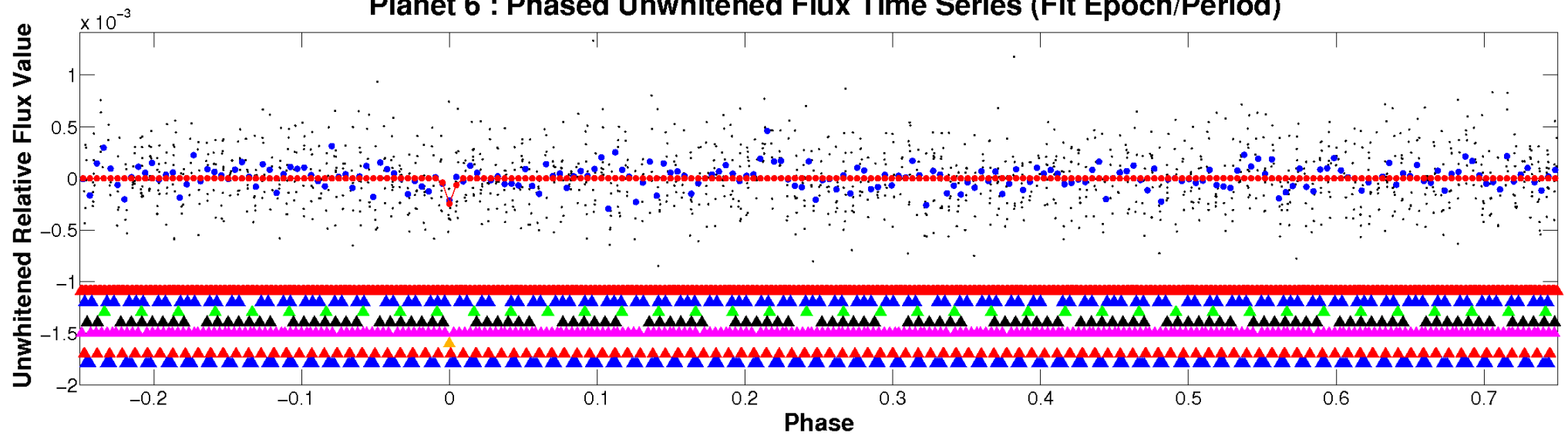


ALT Odd/Even

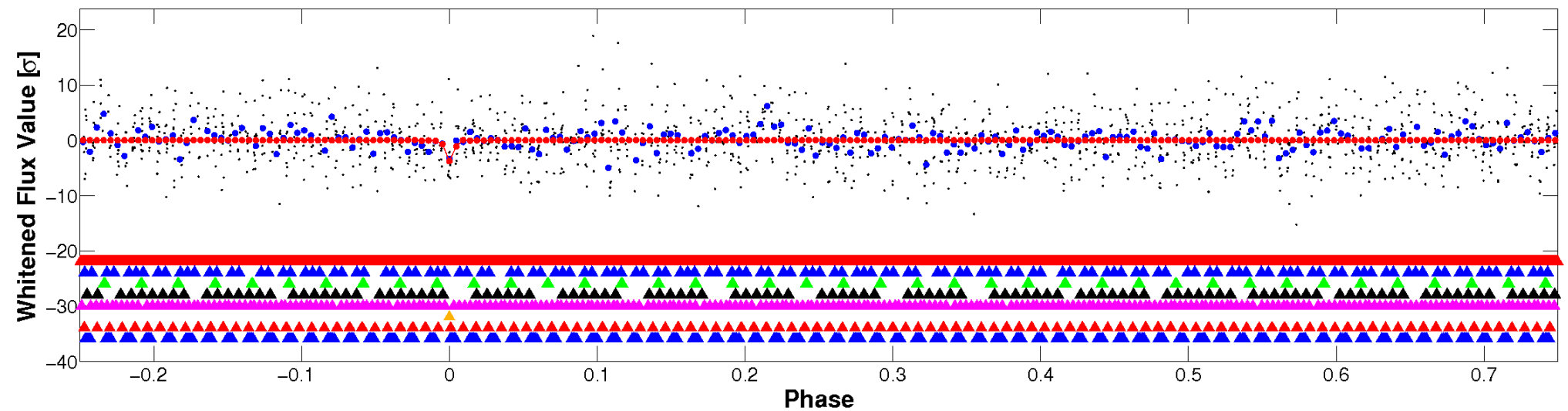
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

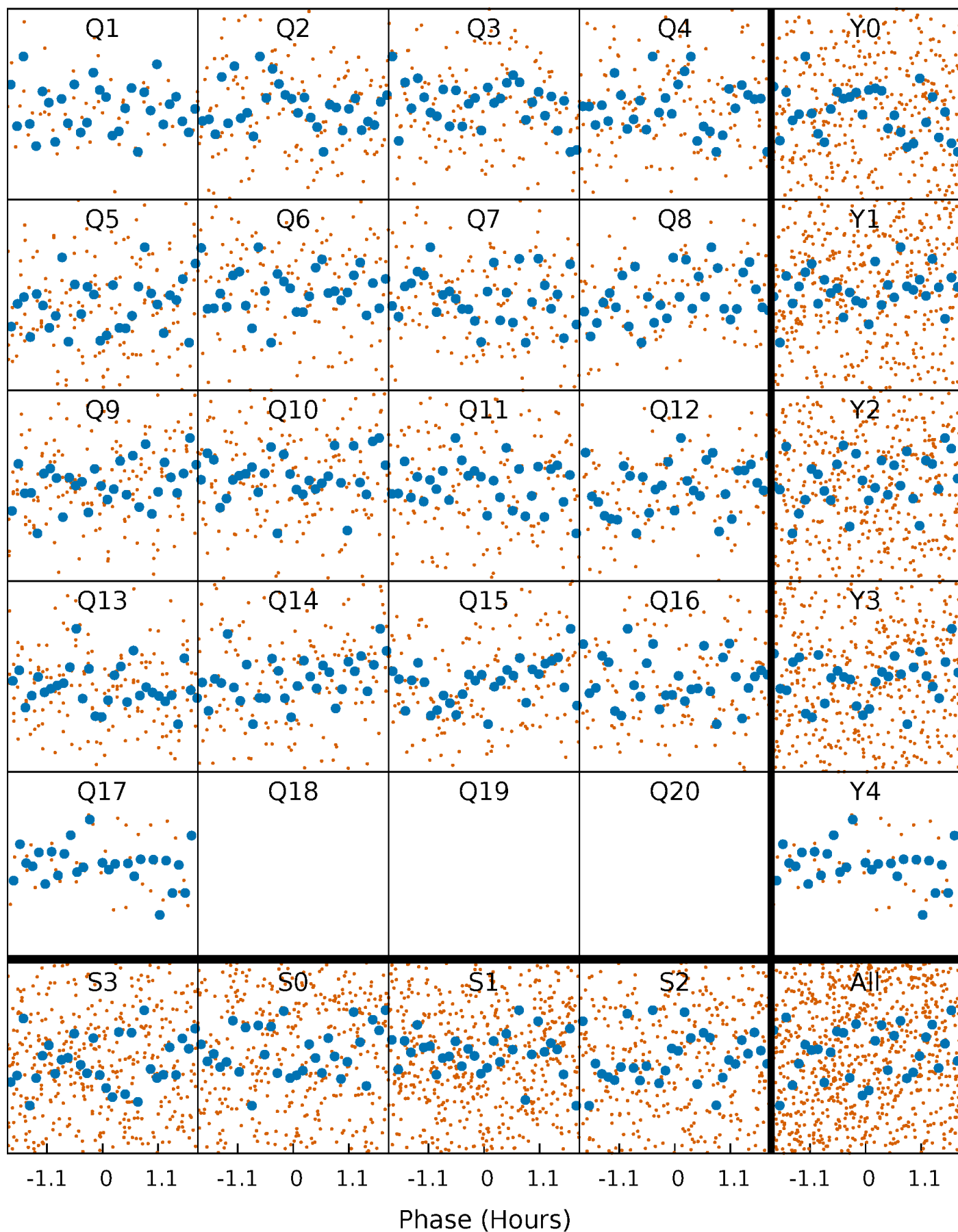


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



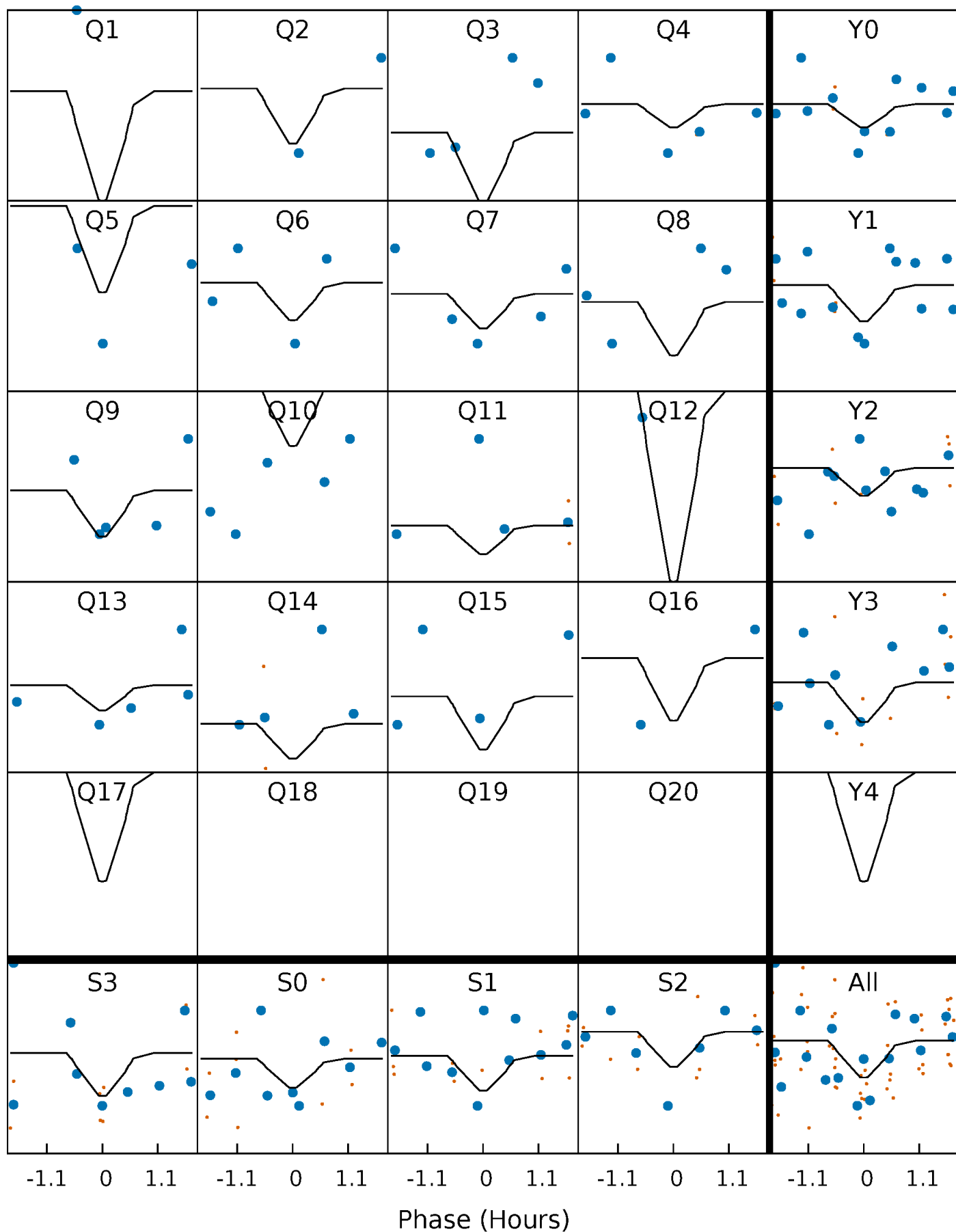
PDC Quarter-Phased Transit Curves

TCE 007281454-06 P= 4.369578 Days $T_0=134.114310$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007281454-06 P= 4.369578 Days $T_0=134.114310$ (BKJD)

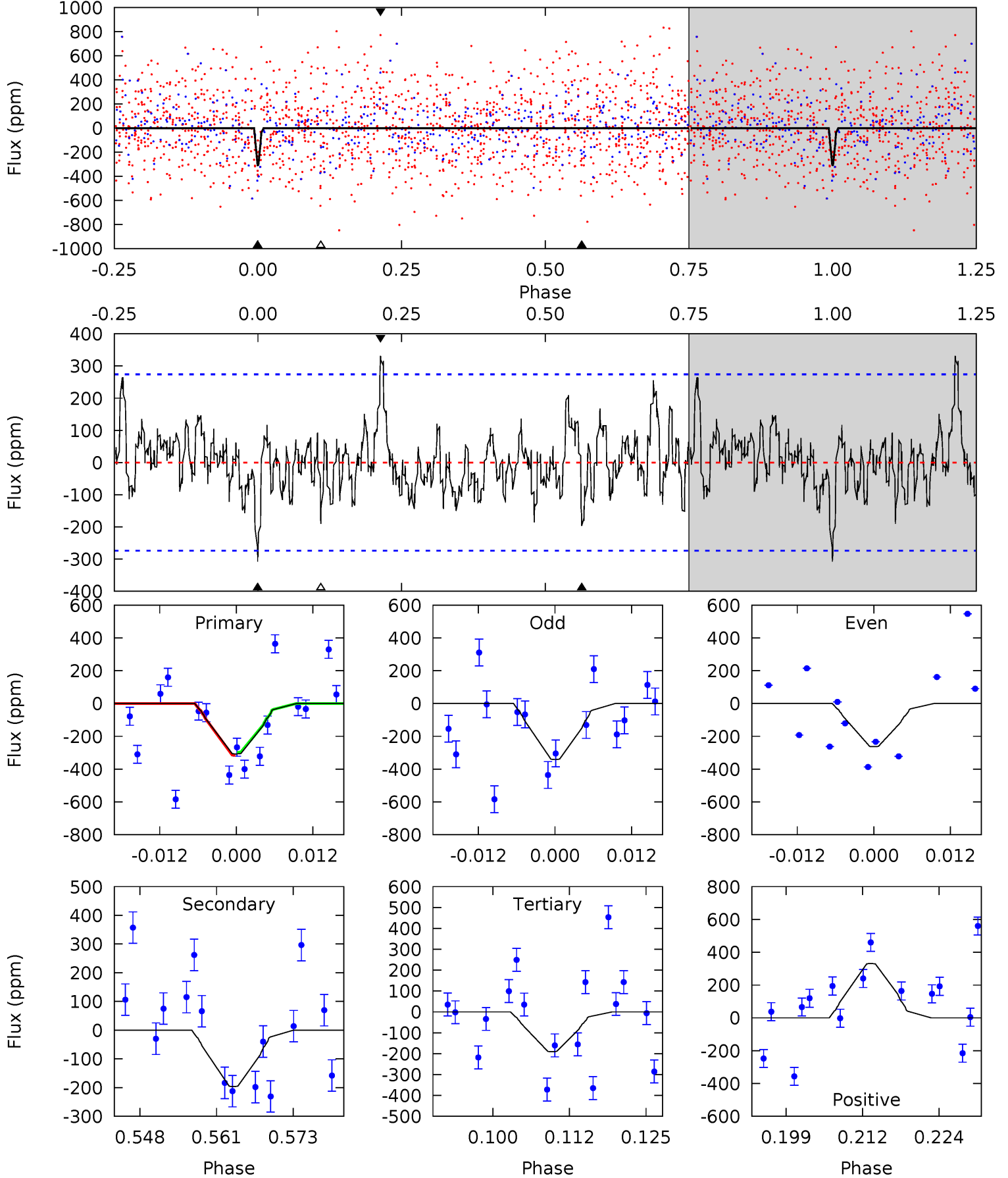


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007281454-06, P = 4.369578 Days, E = 129.744732 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.59	3.57	3.47	6.02	4.98	2.50	1.46	2.12	-0.43	0.10	-2.45	0.71	0	0.52	0.16



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007281454

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5000^{+150}_{-150}	$4.708^{+0.049}_{-0.021}$	$-1.580^{+0.300}_{-0.250}$	$0.549^{+0.025}_{-0.030}$	$0.561^{+0.038}_{-0.017}$	$4.773^{+0.785}_{-0.461}$
	+3%/-3%	+1%/-0%	+19%/-16%	+5%/-5%	+7%/-3%	+16%/-10%
Source	PHO1	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 007281454-06 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-196 ± 55	$3.38^{+3.20}_{-2.31}$	1094^{+38}_{-36}	3081^{+1465}_{-548}	18^{+163}_{-14}
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

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

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

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

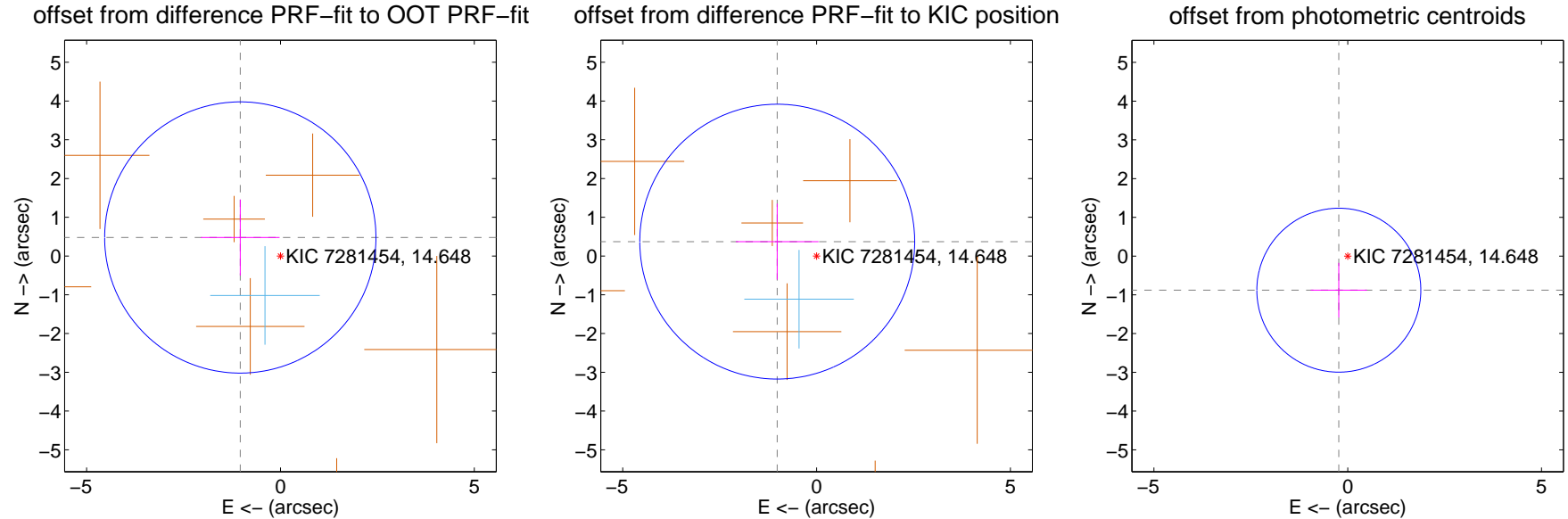
DV Centroid Data

Supplemental centroid analysis for 007281454-06. Kepler magnitude: 14.65. Transit SNR 12.01

There are 1 quarters with good PRF difference image offsets

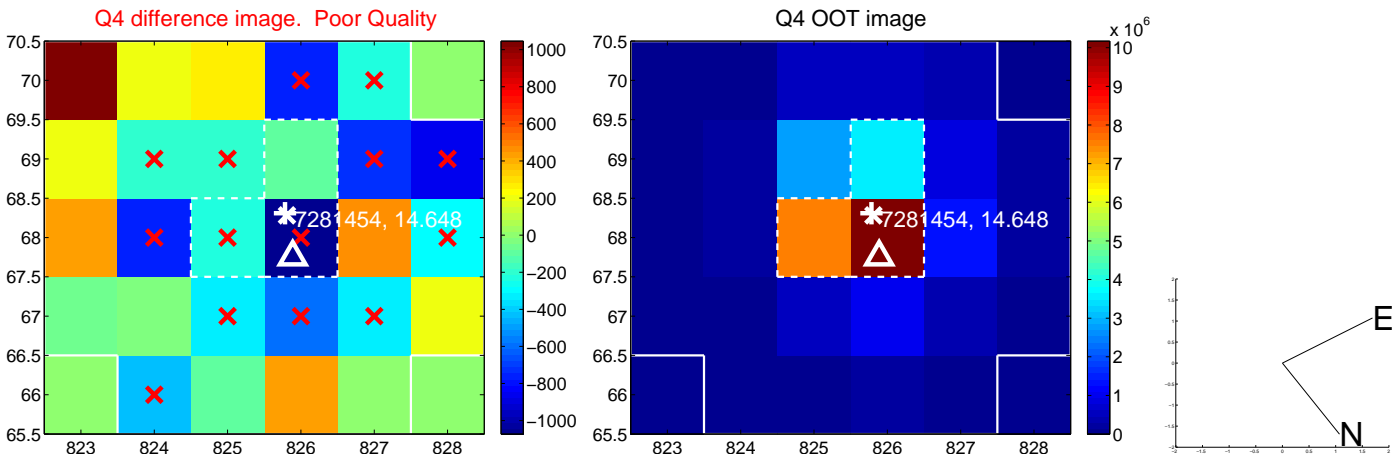
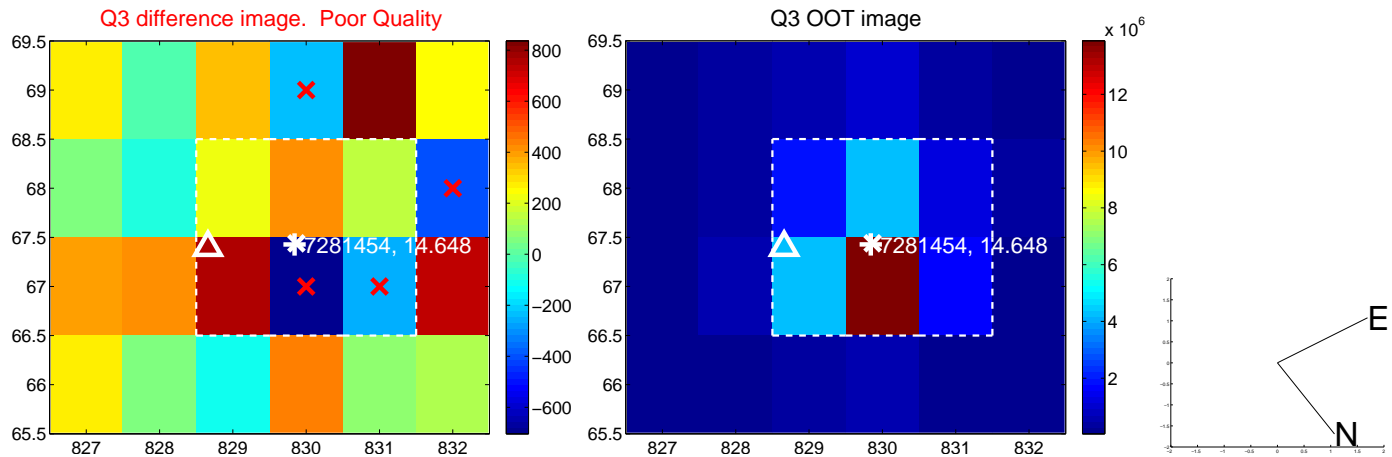
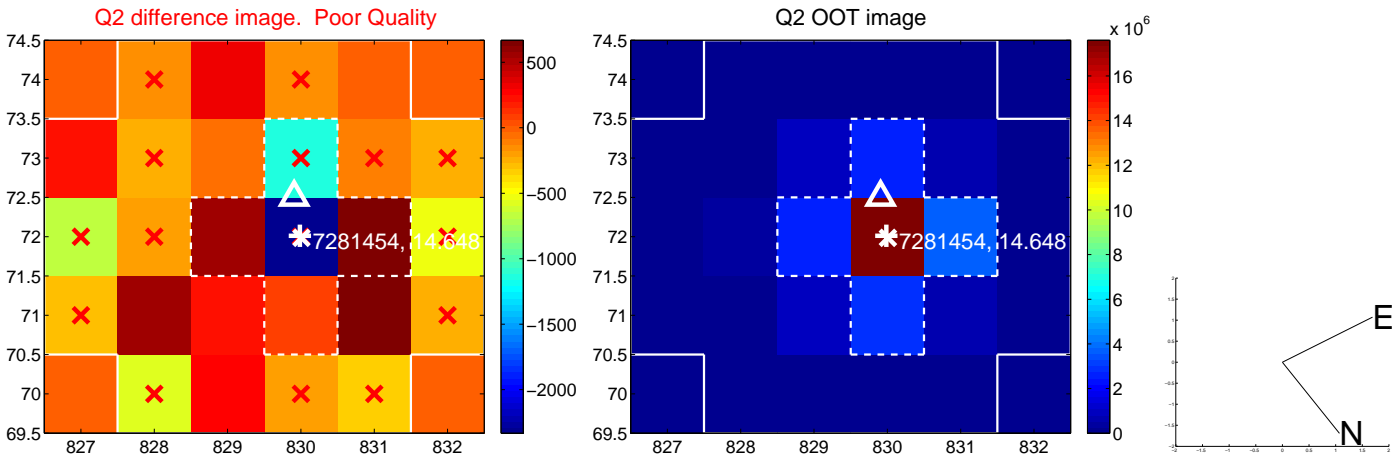
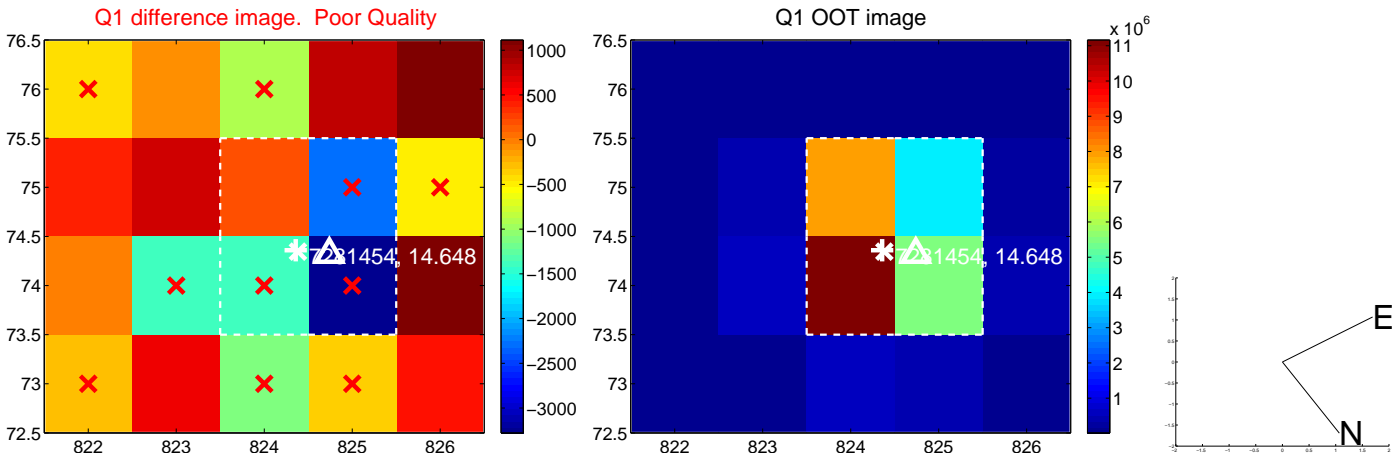
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.141 ± 1.166	0.98	1.036 ± 1.013	0.478 ± 0.982
PRF-fit source offset from KIC position	1.081 ± 1.182	0.91	1.015 ± 1.067	0.371 ± 0.979
photometric centroid source offset	0.91 ± 0.71	1.29	0.23 ± 0.73	-0.88 ± 0.70

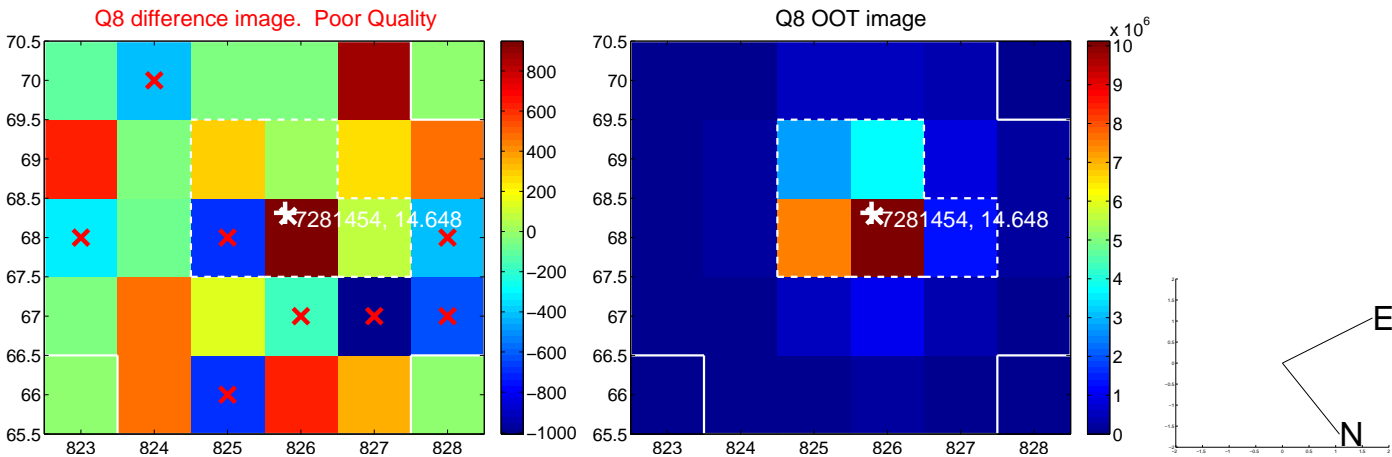
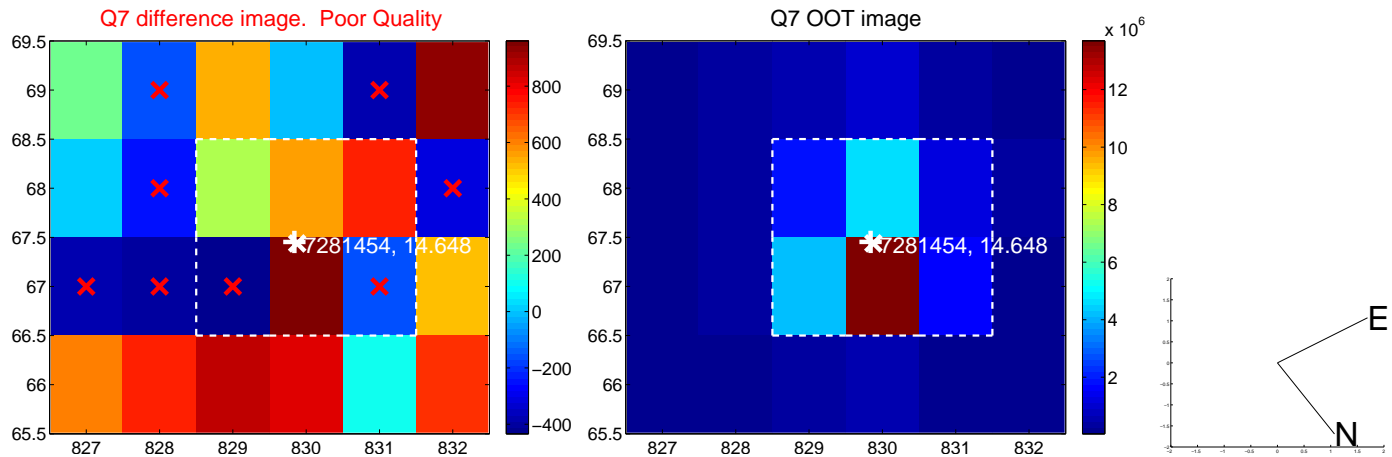
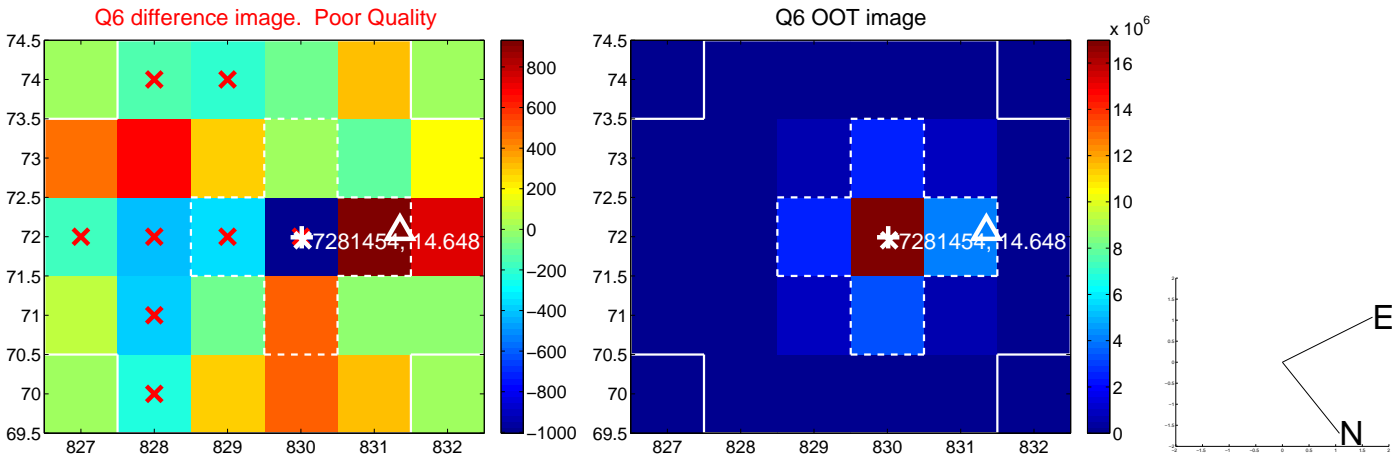
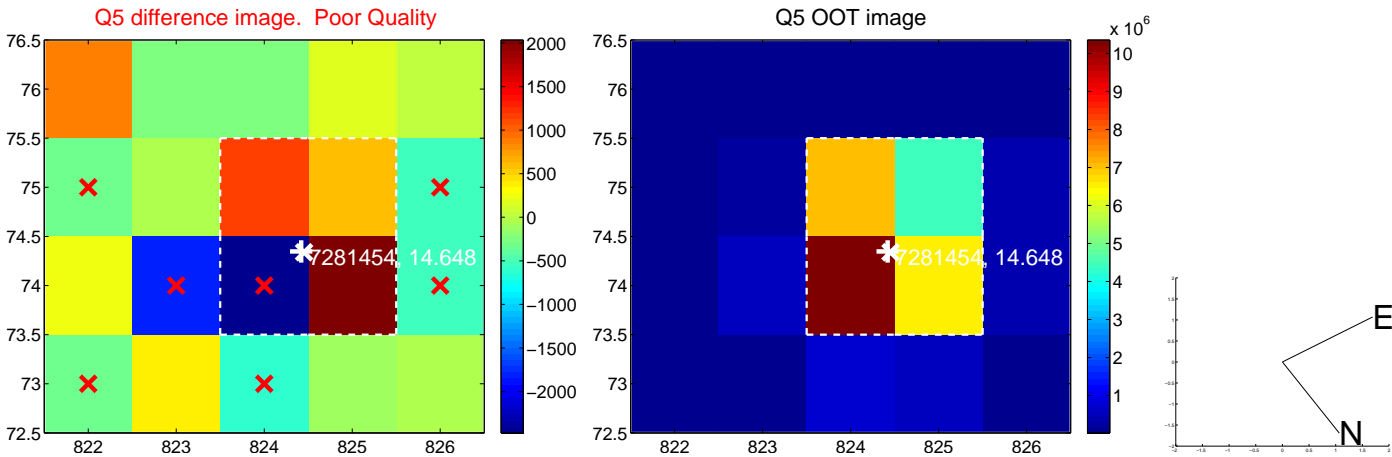


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

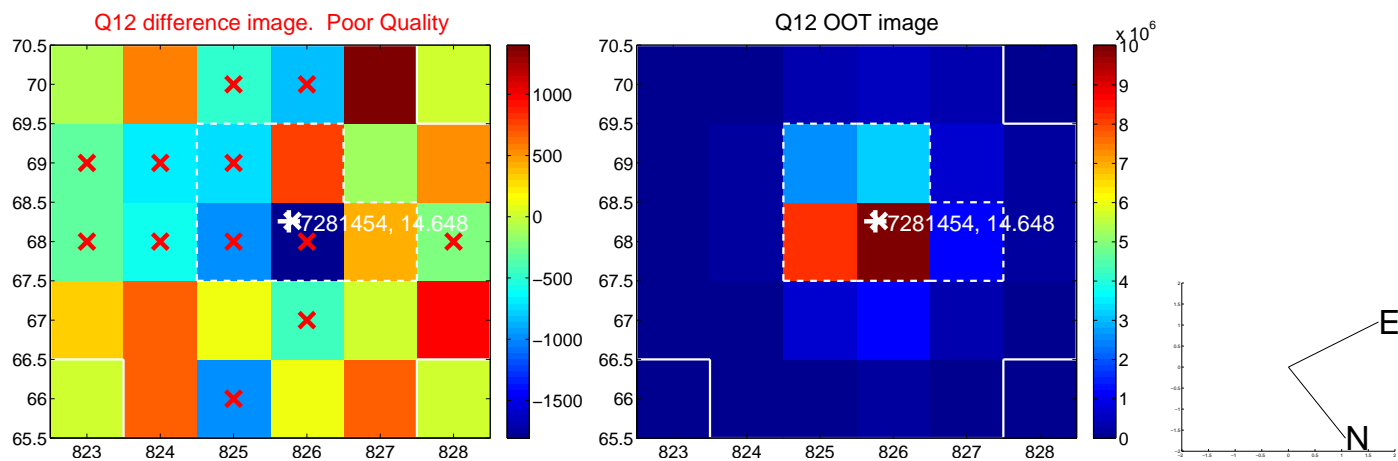
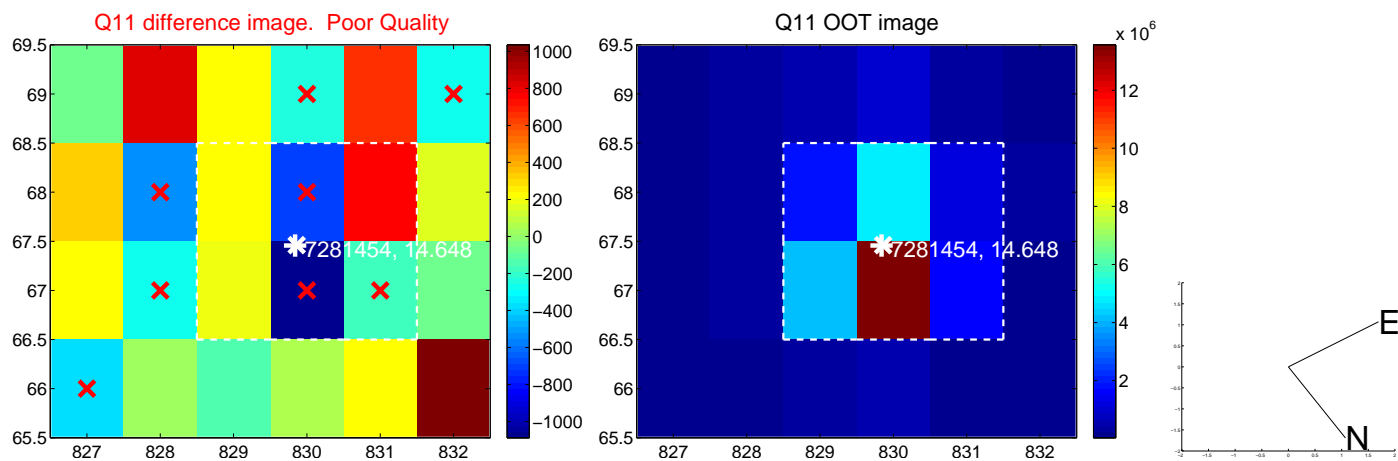
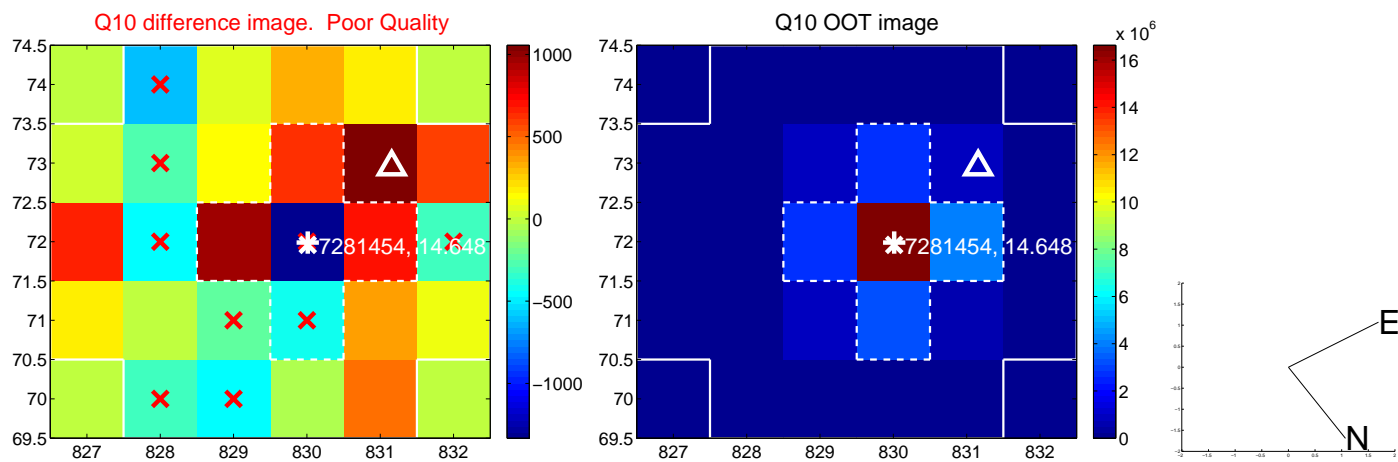
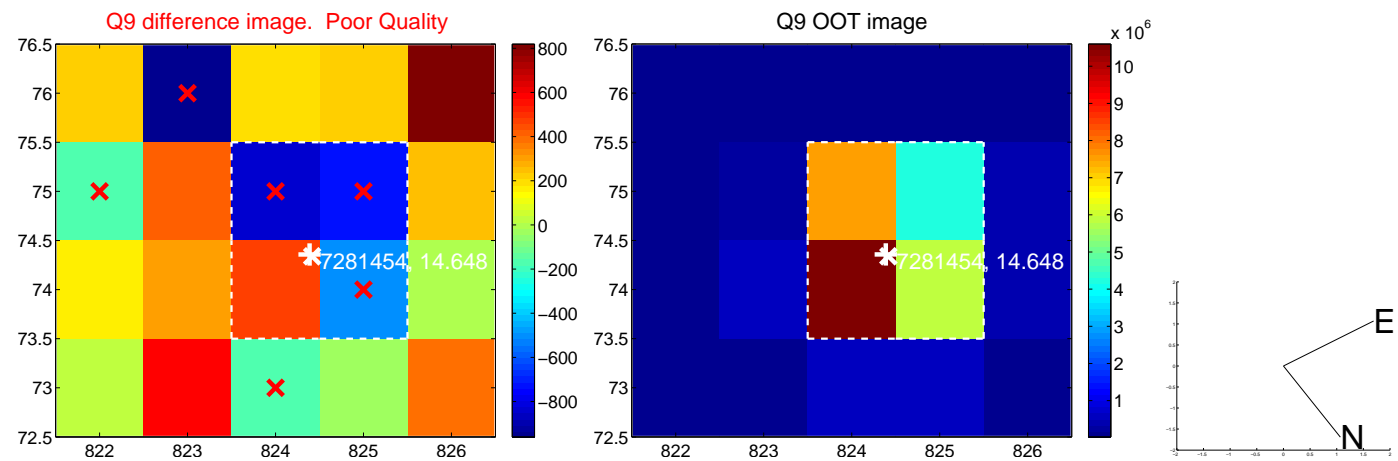
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



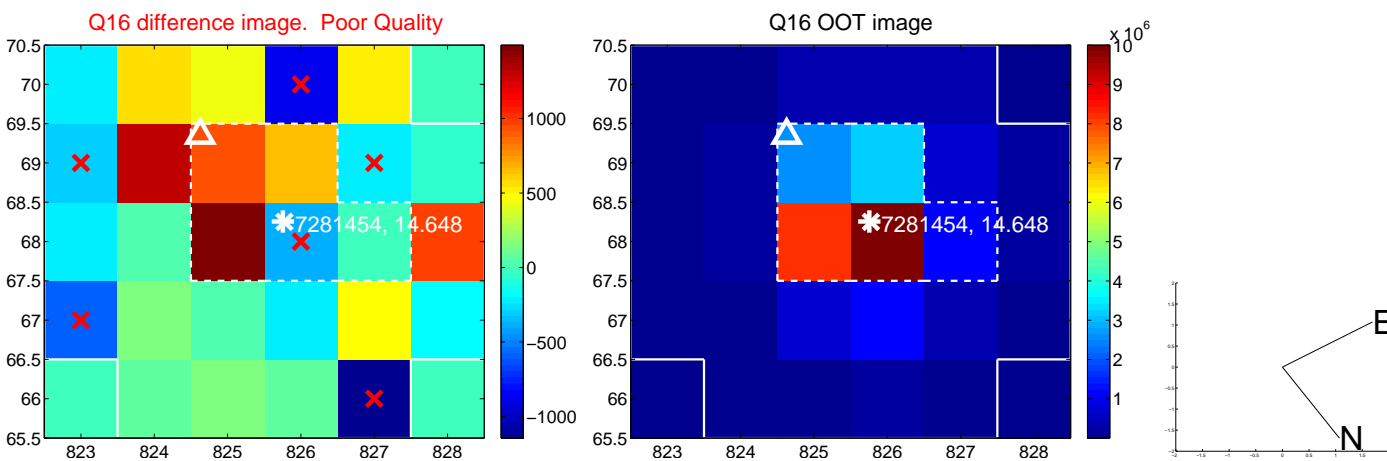
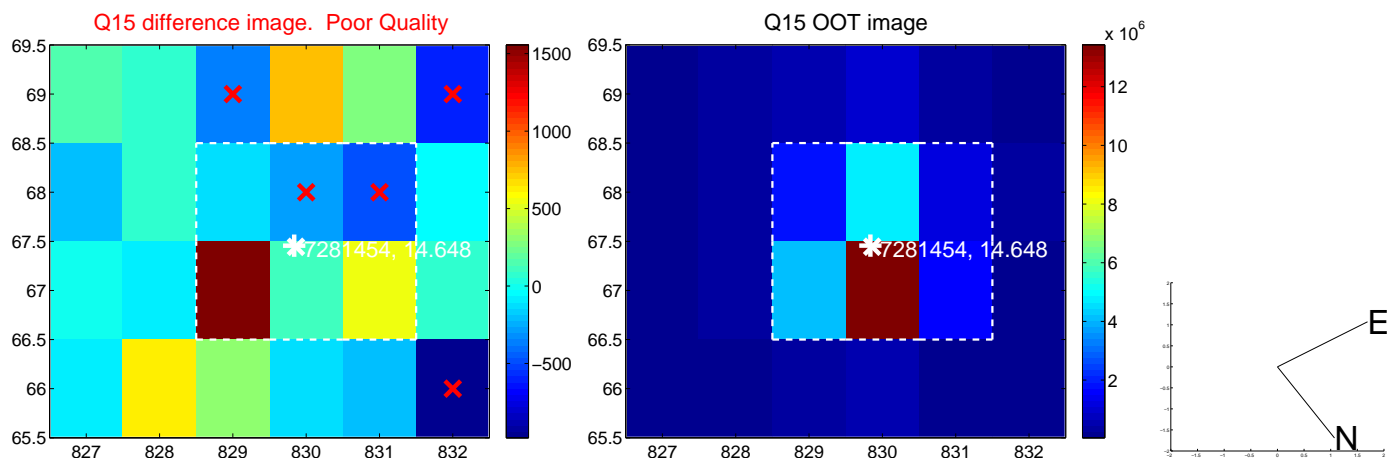
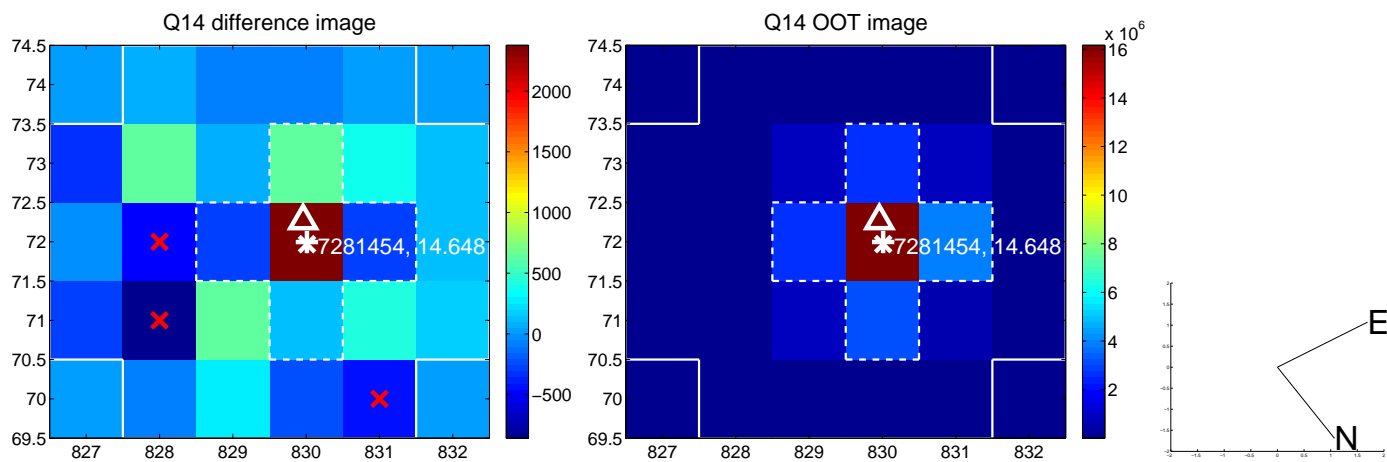
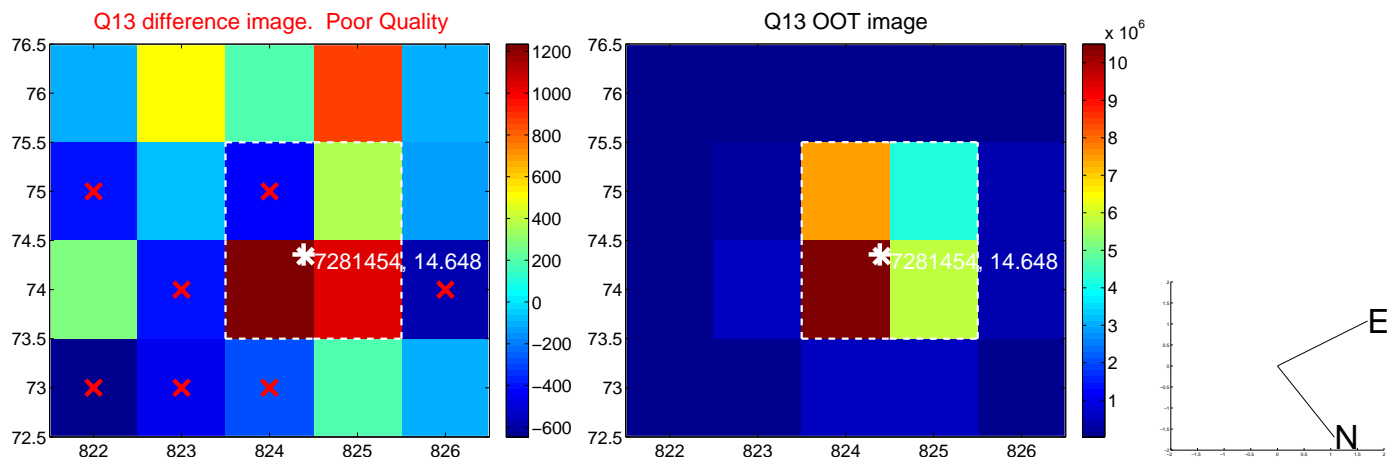
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



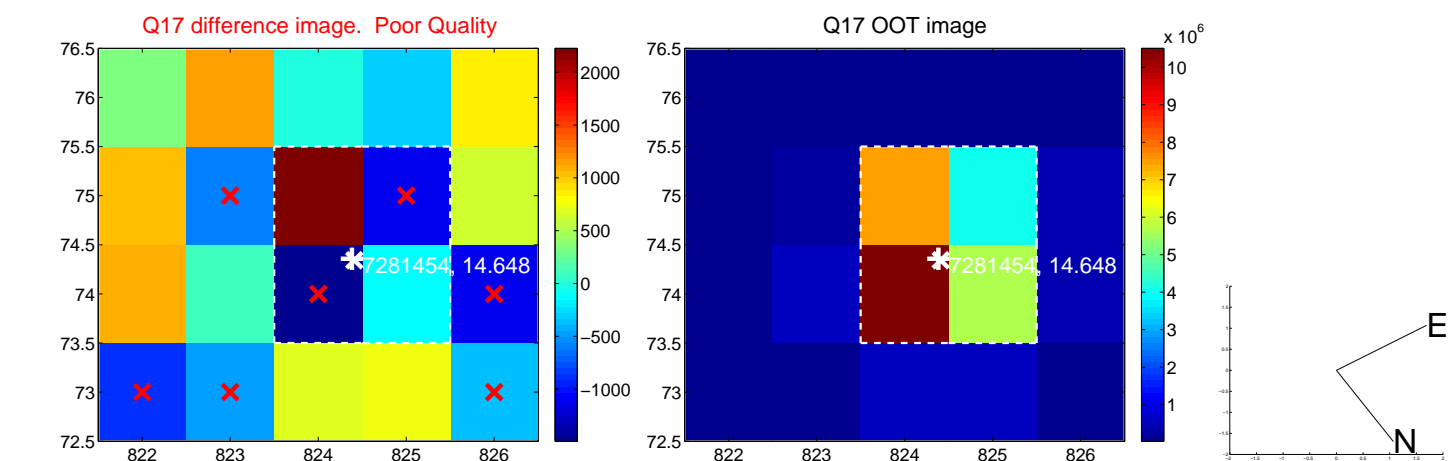
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



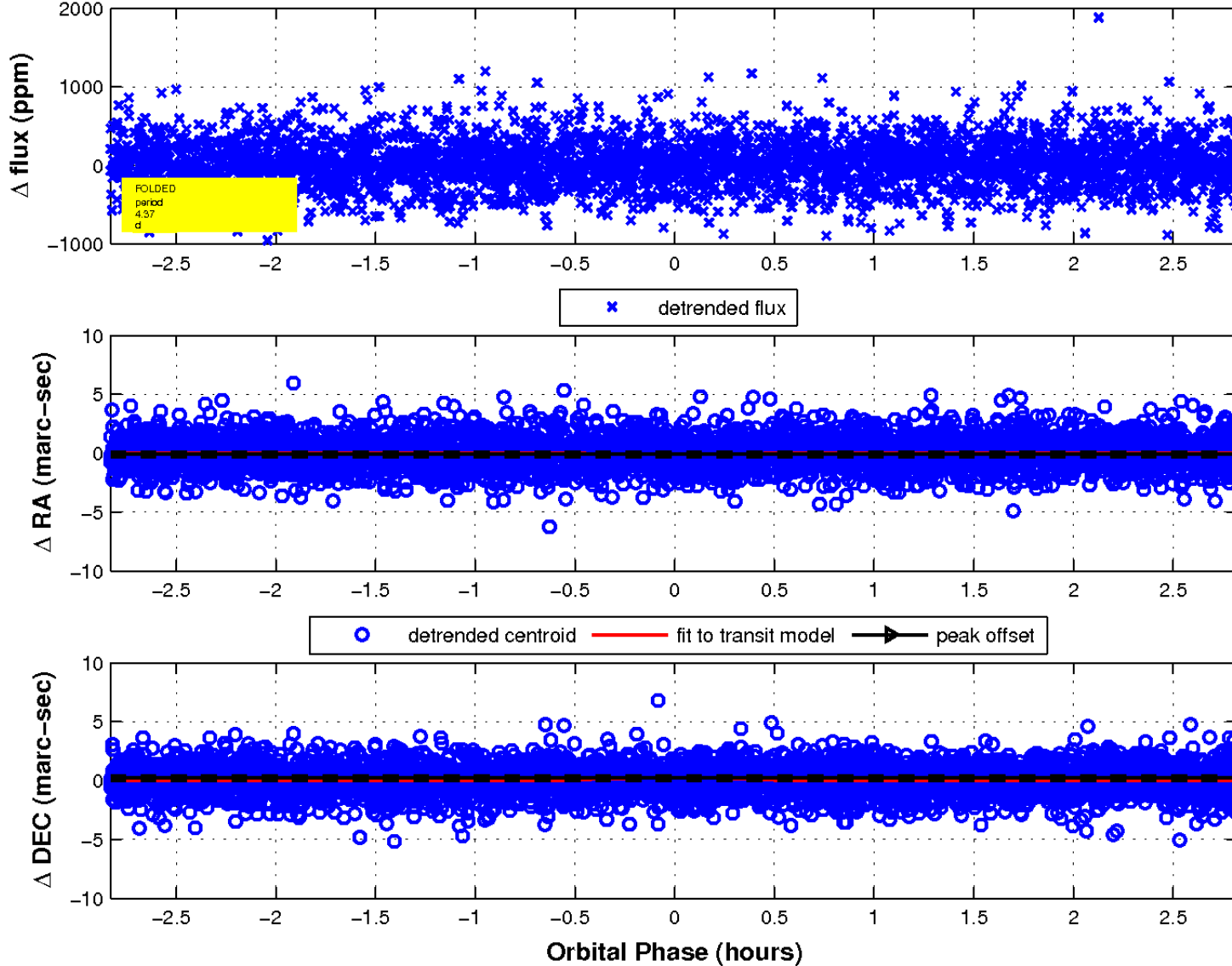
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

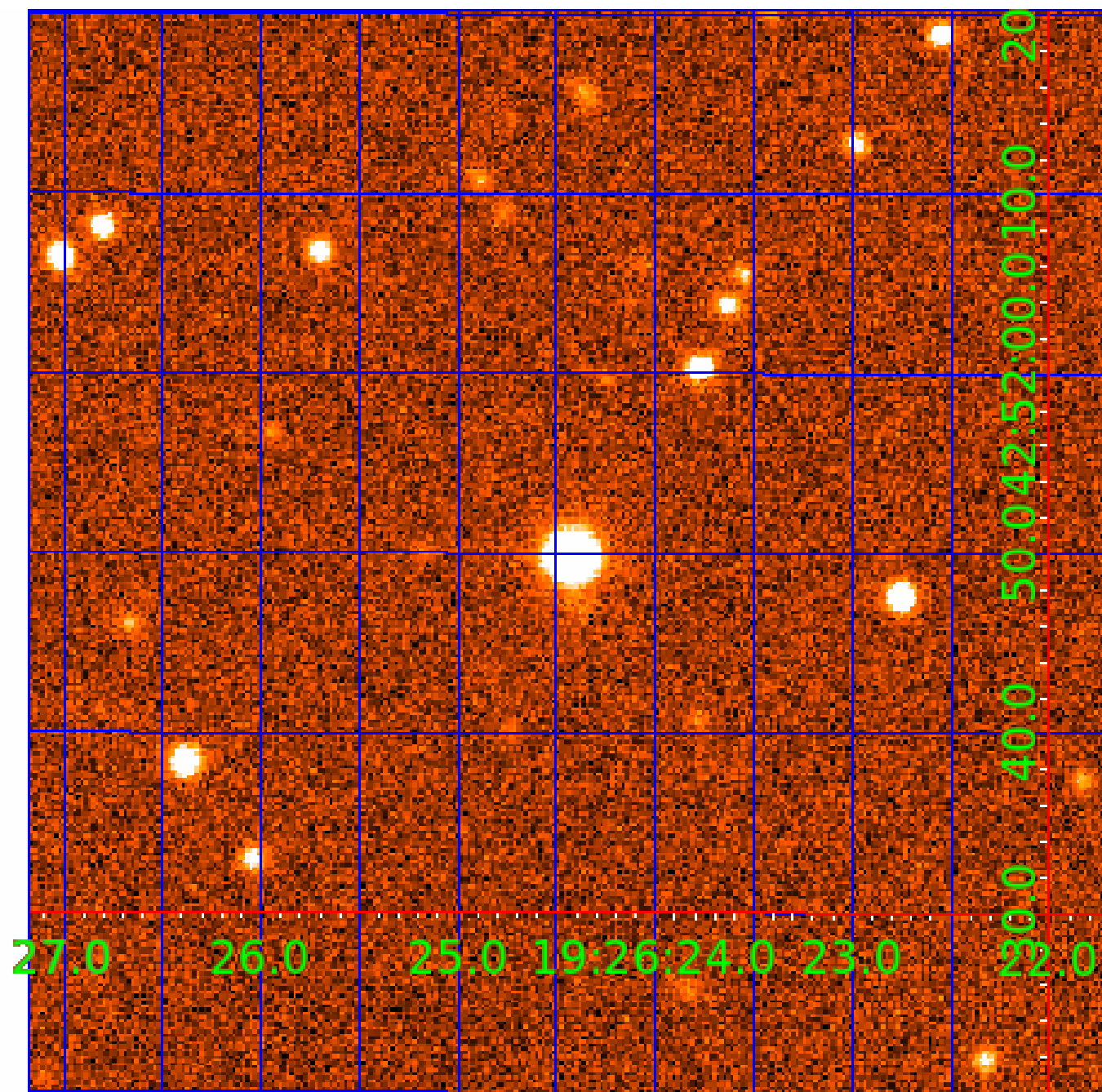


fluxWeightedCentroids, Planet 6 of 8



UKIRT Image

Declination



KIC 007281454

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})
007281454-01	OBS	3055.01	0.566695	131.938748	8.1	4.252	10.4	3.0	0.55	5000	0.16	1380.46
007281454-02	OBS	No	10.739148	137.537077	210.7	1.193	11.1	7.7	0.55	5000	0.85	27.32
007281454-03	OBS	No	5.789677	133.205705	680.8	0.712	15.0	17.3	0.55	5000	1.46	62.27
007281454-04	OBS	No	12.853532	142.647659	818.3	0.545	12.5	20.2	0.55	5000	1.65	21.50
007281454-05	OBS	No	5.276778	131.556097	412.6	0.736	14.5	15.6	0.55	5000	1.17	70.47
007281454-06	OBS	No	4.369578	134.114310	246.7	0.943	12.5	12.0	0.55	5000	0.87	90.62
007281454-07	OBS	No	8.141625	136.843060	217.1	1.522	13.5	8.9	0.55	5000	0.81	39.52
007281454-08	OBS	No	3.770951	134.193884	109.6	0.575	8.4	4.0	0.55	5000	0.61	110.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007281454-01	OBS	FP	0.00	1	0	0	1	LPP_DV—EPHEM_MATCH
007281454-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
007281454-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007281454-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007281454-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007281454-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007281454-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV
007281454-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

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

Ephemeris Match Information For 007281454-07

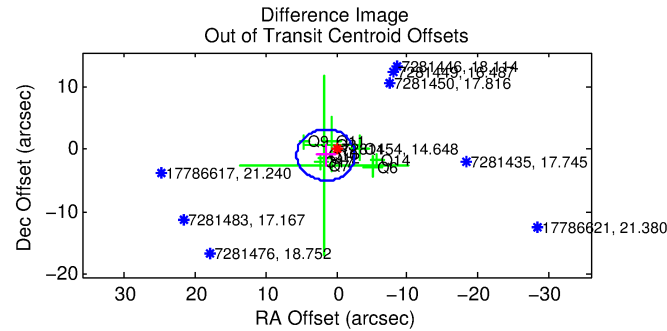
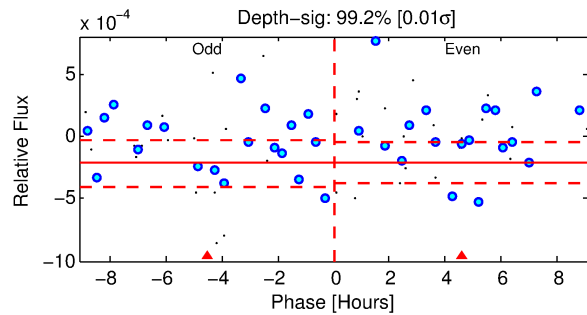
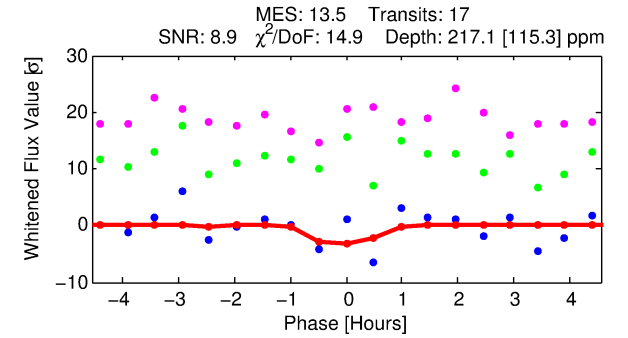
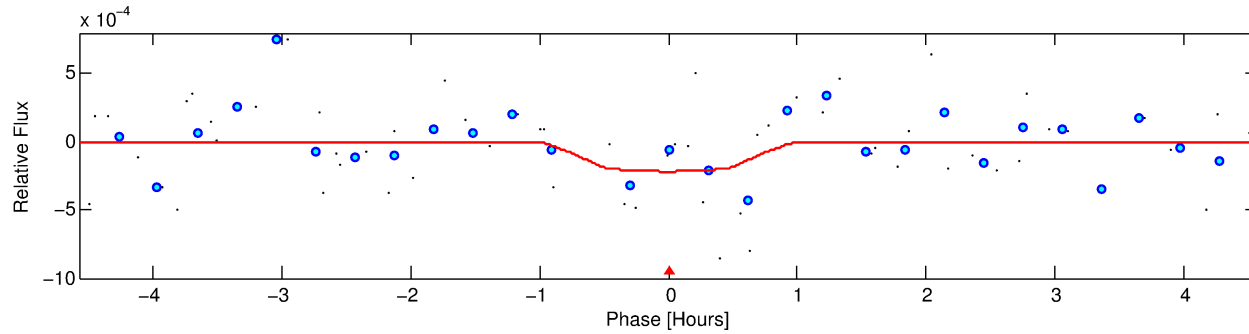
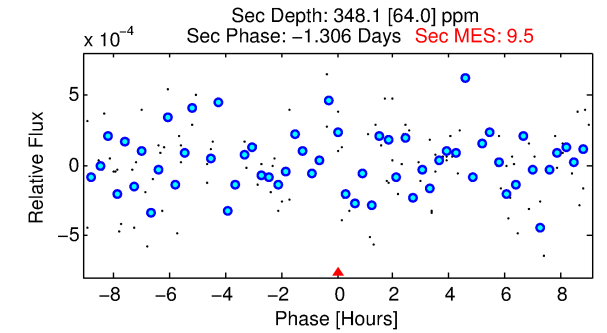
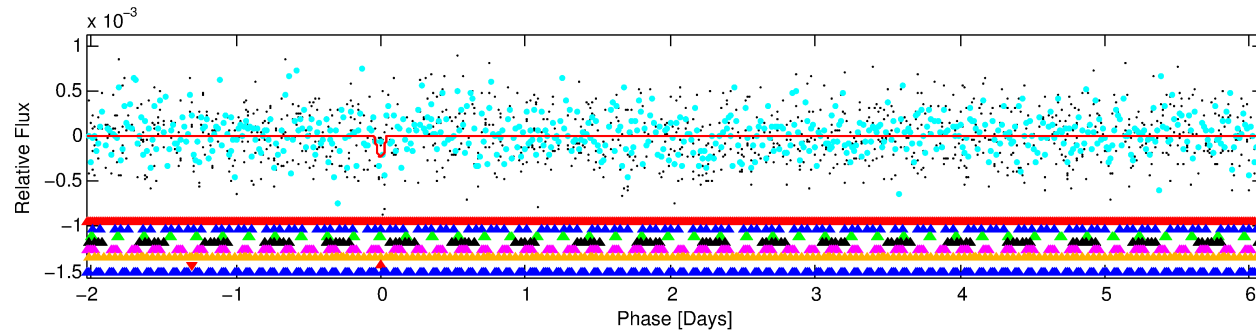
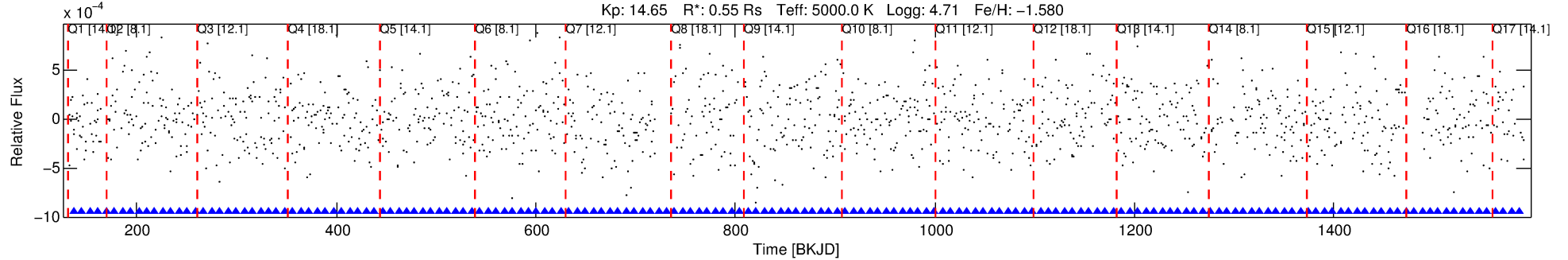
No Significant Match Found

DV One-Page Summary

KIC: 7281454 Candidate: 7 of 8 Period: 8.142 d

KOI: K03055 Corr: No Ephemeris Match

Kp: 14.65 R*: 0.55 Rs Teff: 5000.0 K Logg: 4.71 Fe/H: -1.580



DV Fit Results:

Period = 8.14163 [0.00033] d
Epoch = 136.8431 [0.0269] BKJD
Rp/R* = 0.0135 [0.2062]
a/R* = 41.29 [3041.16]
b = 0.08 [947.06]
Seff = 39.53 [5.78]
Teq = 639 [23] K
Rp = 0.81 [12.35] Re
a = 0.0653 [0.0034] AU
Ag = 1252.00 [38269.94] [0.03σ]
Teff = 5880 [44935] K [0.12σ]

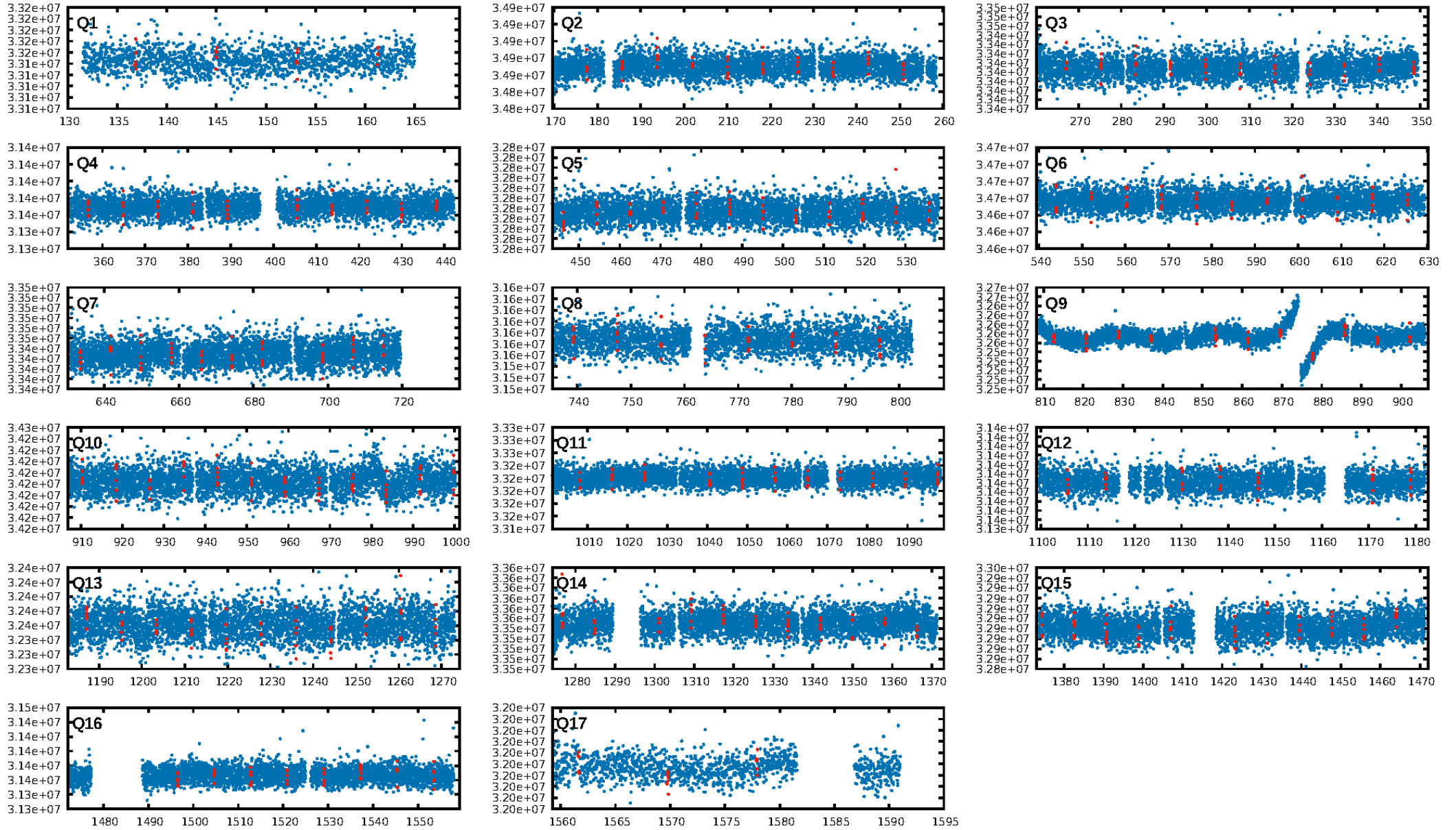
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [33.59σ]
LongPeriod-sig: 100.0% [32.23σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: 3.45e-07
RollingBand-fgt: 1.00 [17/17]
GhostDiagnostic-chr: -1.057
Centroid-sig: 21.2%
Centroid-so: 1.291 arcsec [1.46σ]
OotOffset-rm: 1.786 arcsec [1.31σ]
KicOffset-rm: 1.518 arcsec [1.07σ]
OotOffset-st: 3/3/1/3 [10]
KicOffset-st: 3/3/1/3 [10]
DiffImageQuality-fgm: 0.10 [1/10]
DiffImageOverlap-fno: 0.00 [0/17]

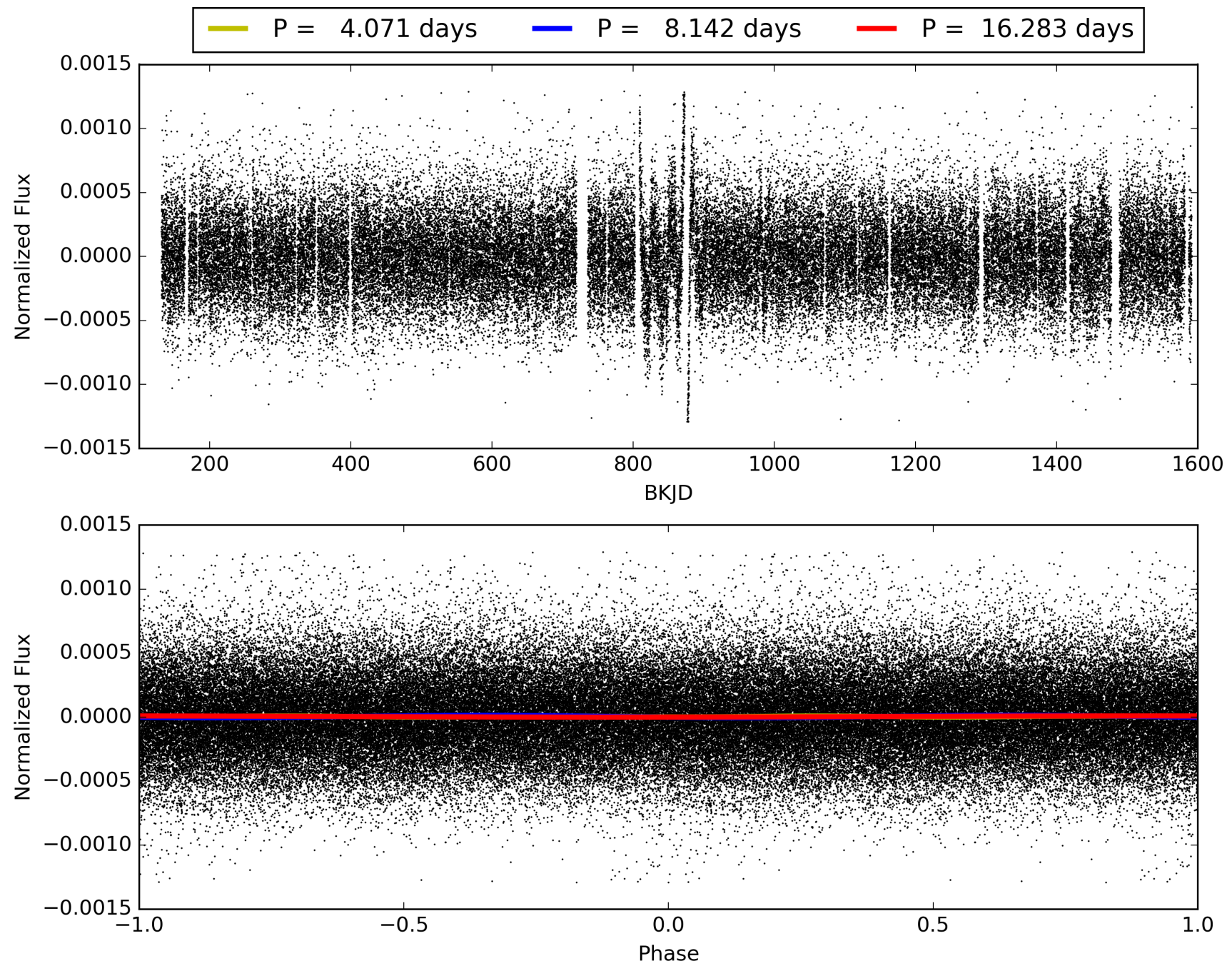
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 10:46:59 Z

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

TCE 007281454-07, PDC Light Curves

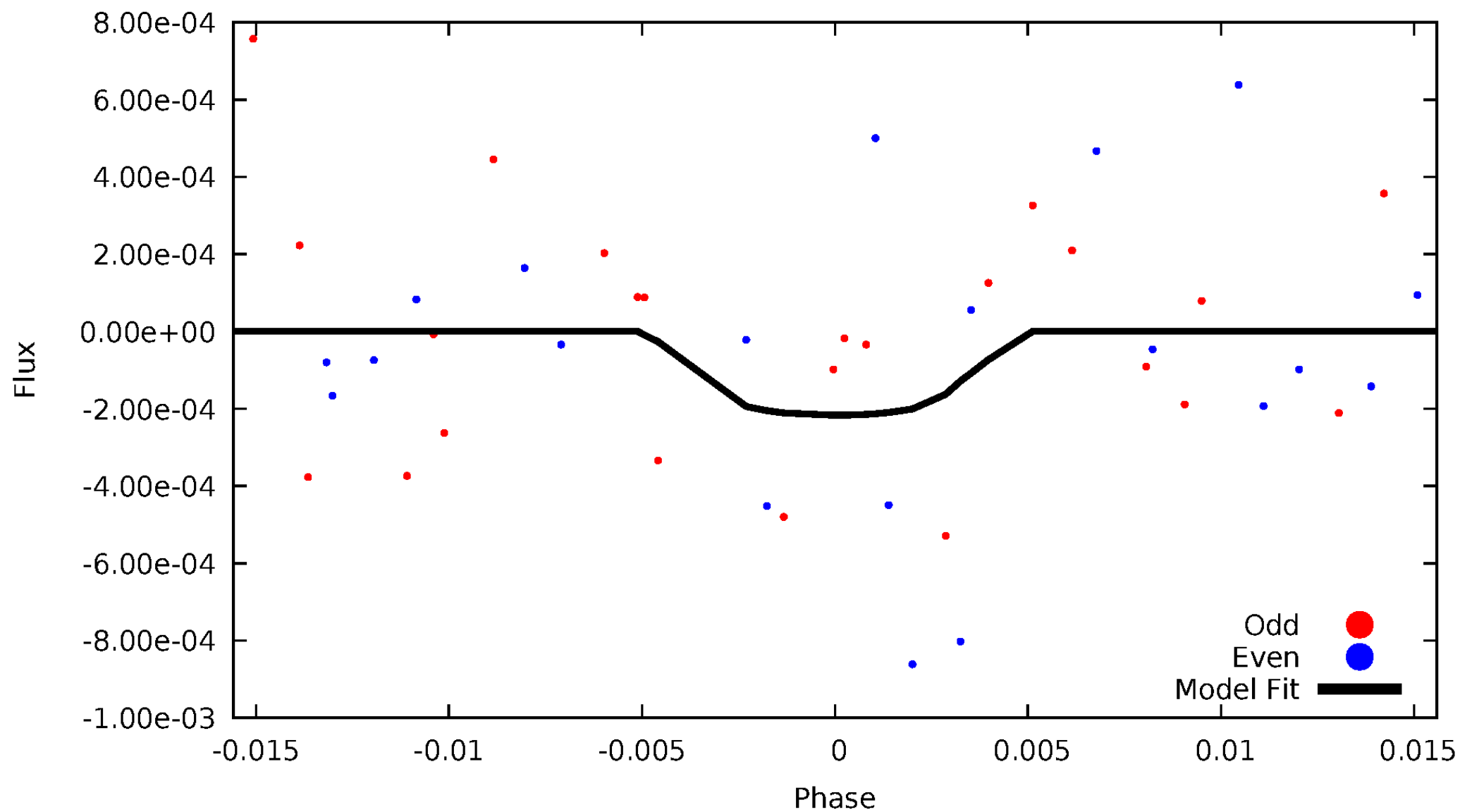


TCE 007281454-07



DV Odd/Even

TCE 007281454-07

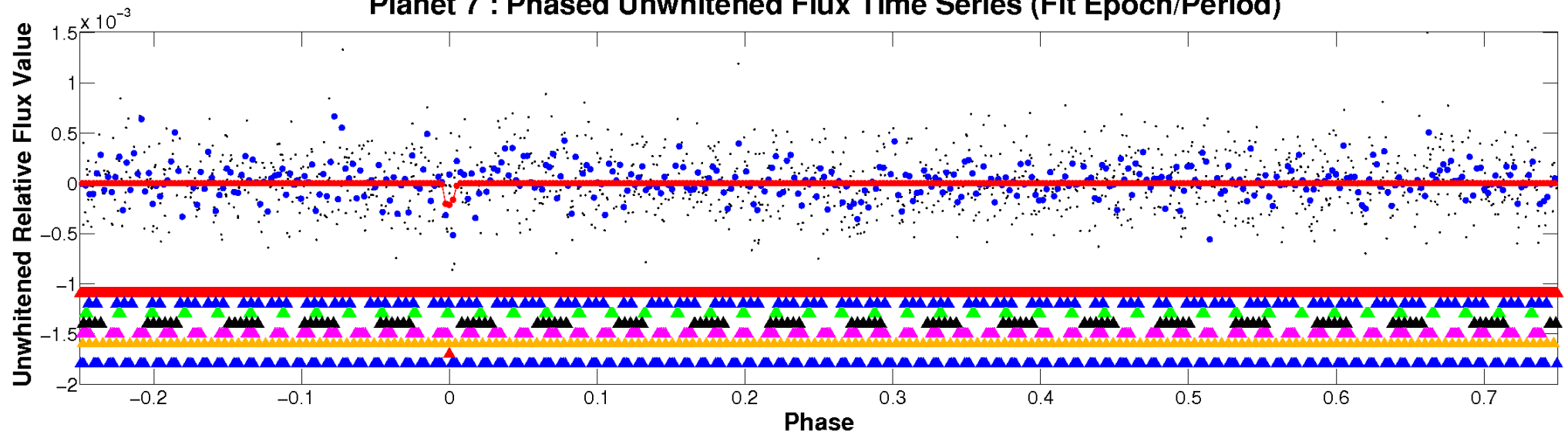


ALT Odd/Even

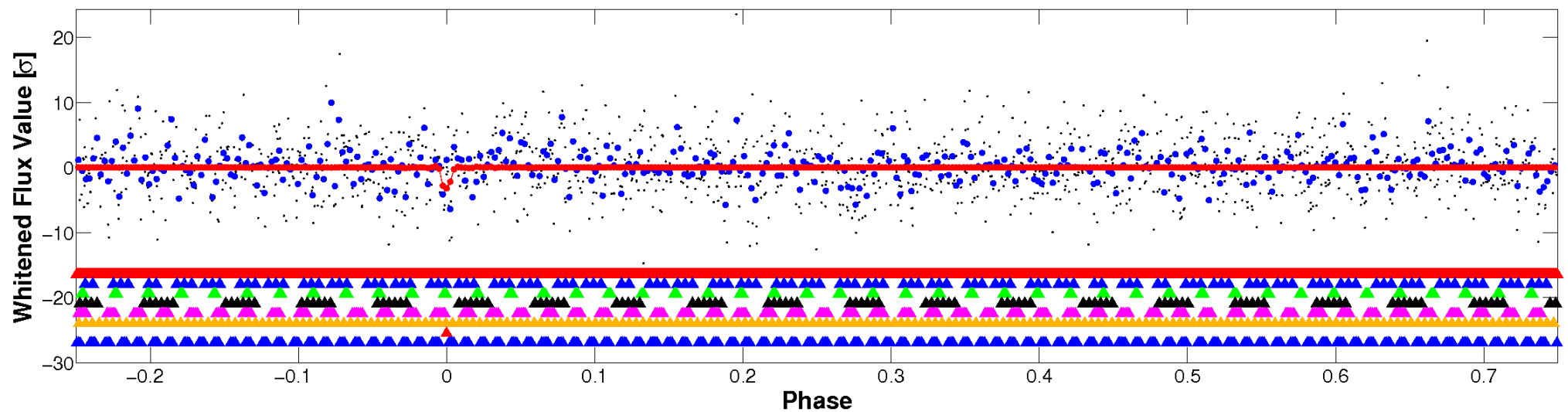
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

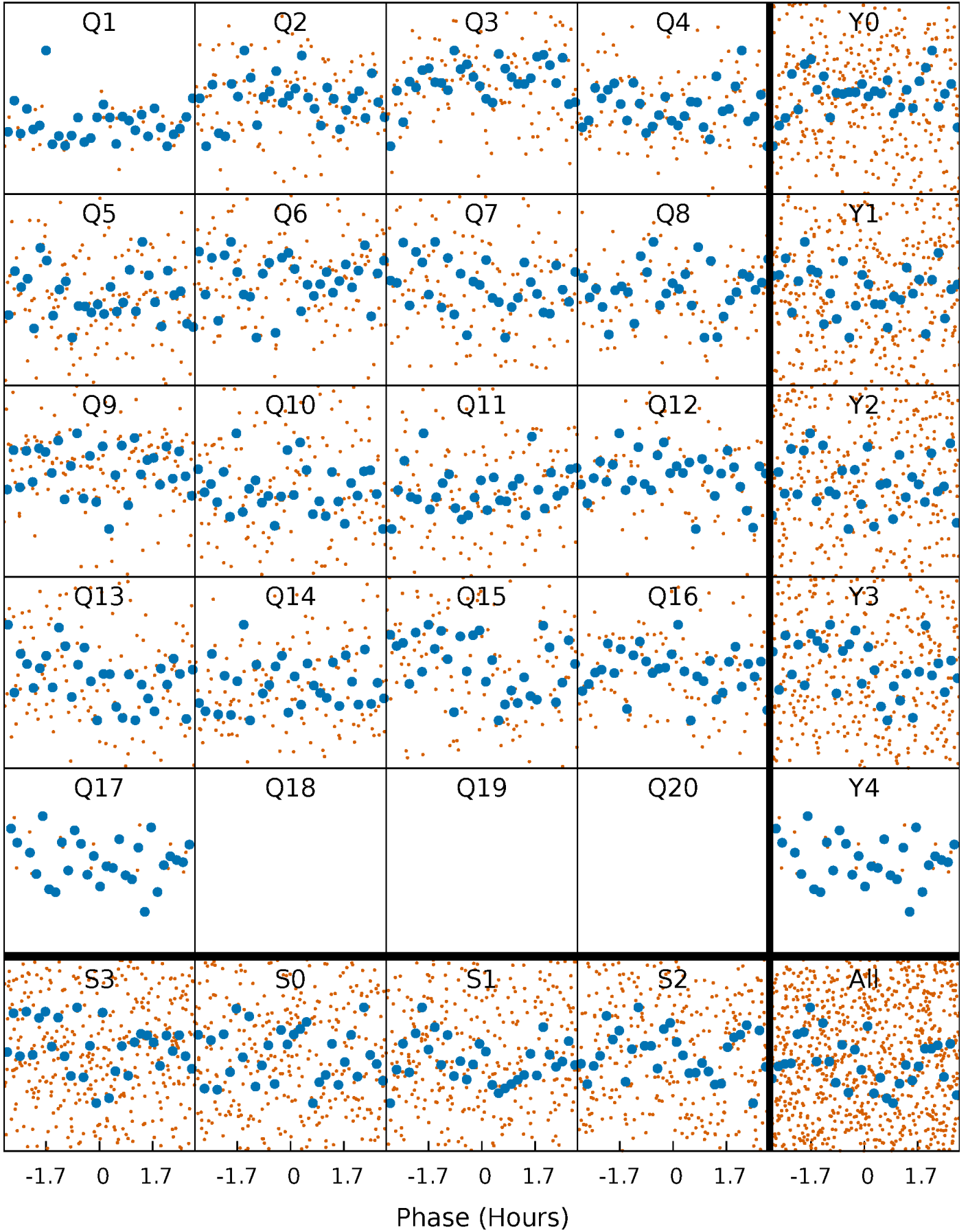


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



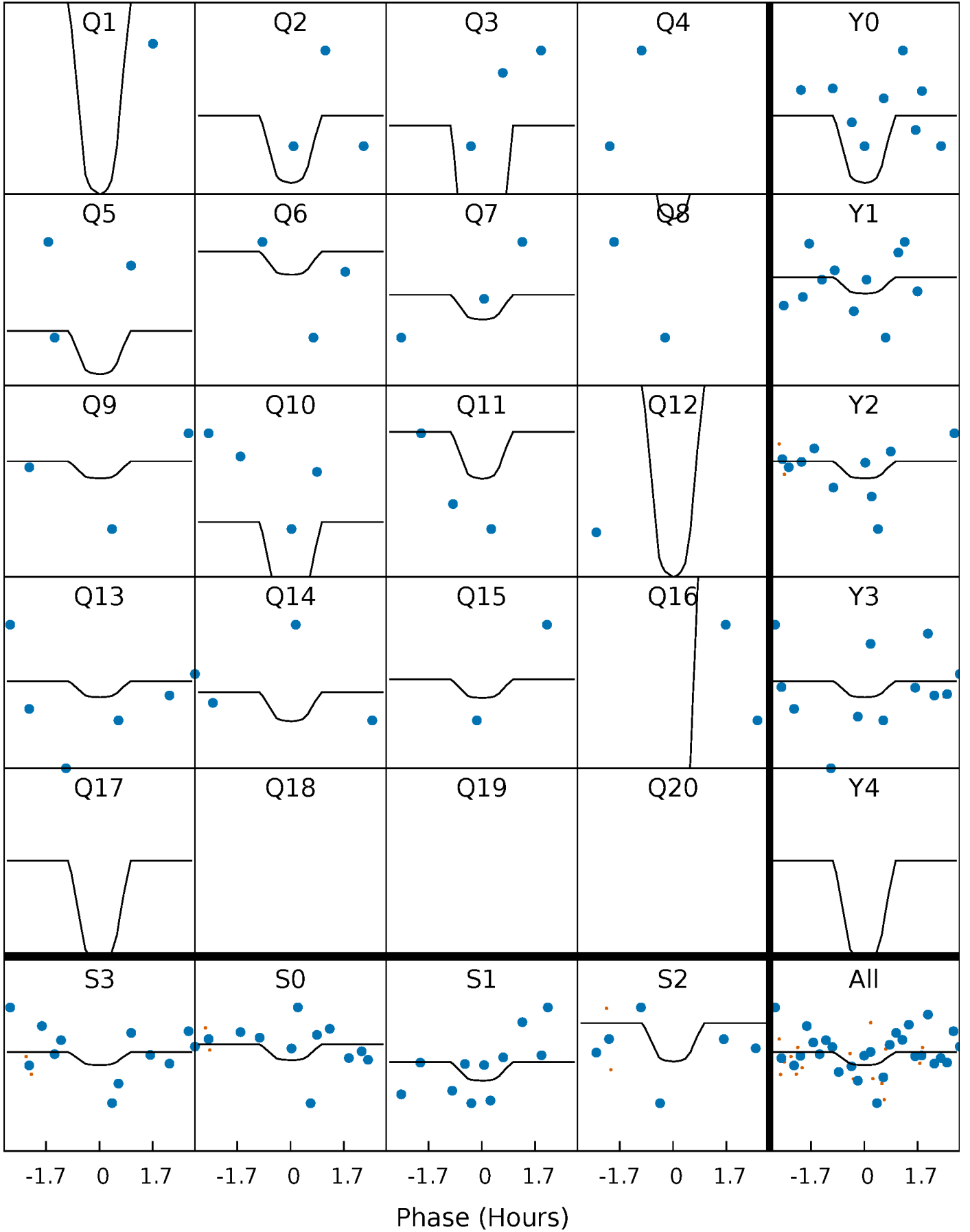
PDC Quarter-Phased Transit Curves

TCE 007281454-07 P= 8.141625 Days $T_0=136.843060$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007281454-07 P= 8.141625 Days $T_0=136.843060$ (BKJD)

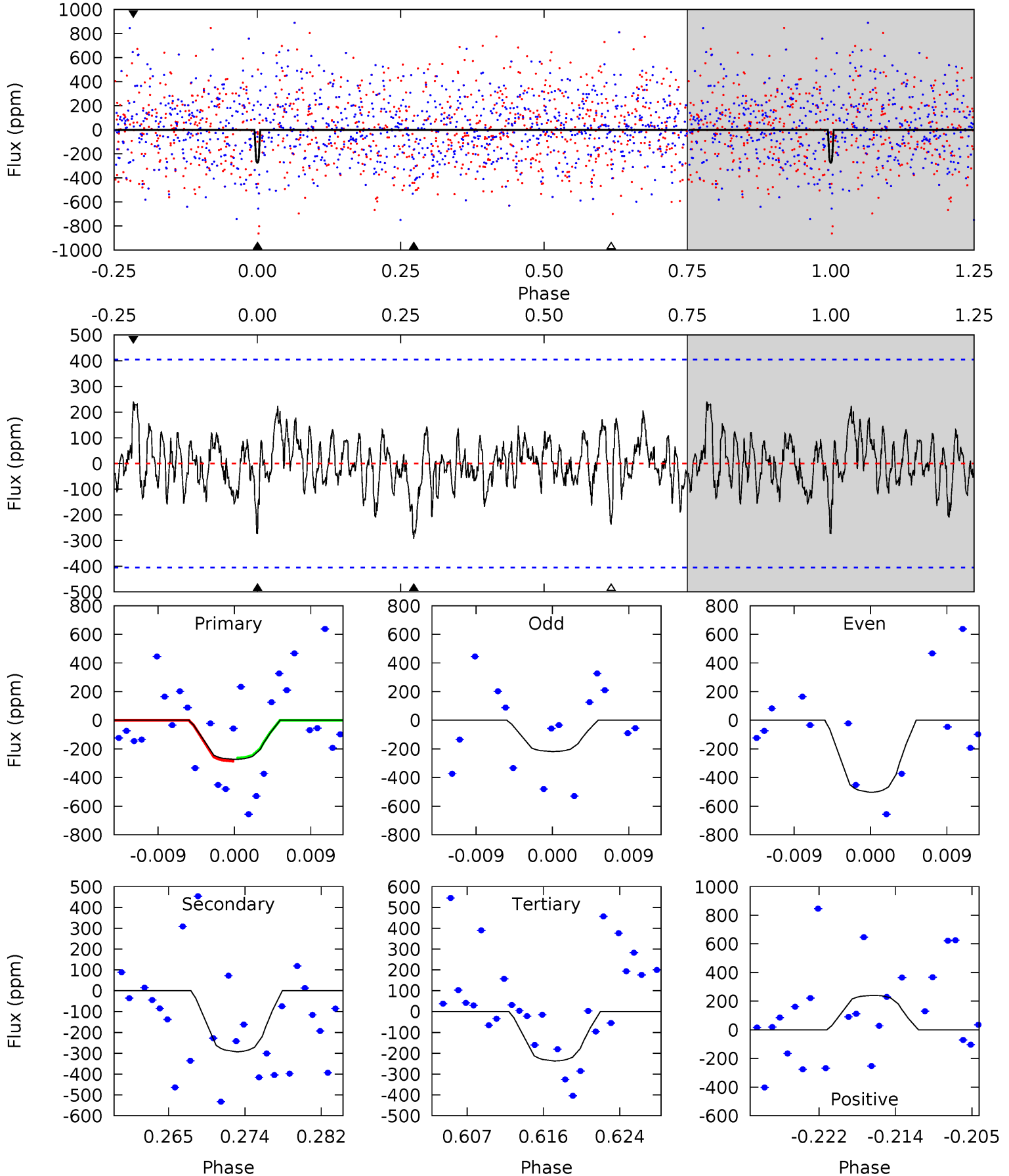


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007281454-07, P = 8.141625 Days, E = 128.701435 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.42	3.66	2.96	3.01	5.06	2.63	1.02	0.46	0.41	0.70	0.65	1.70	0	0.45	0.13



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007281454

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5000^{+150}_{-150}	$4.708^{+0.049}_{-0.021}$	$-1.580^{+0.300}_{-0.250}$	$0.549^{+0.025}_{-0.030}$	$0.561^{+0.038}_{-0.017}$	$4.773^{+0.785}_{-0.461}$
	+3%/-3%	+1%/-0%	+19%/-16%	+5%/-5%	+7%/-3%	+16%/-10%
Source	PHO1	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 007281454-07 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-293 ± 80	$8.78^{+9.64}_{-6.43}$	888^{+28}_{-25}	2512^{+1073}_{-427}	$8.912^{+104.035}_{-6.864}$
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

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

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

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

DV Centroid Data

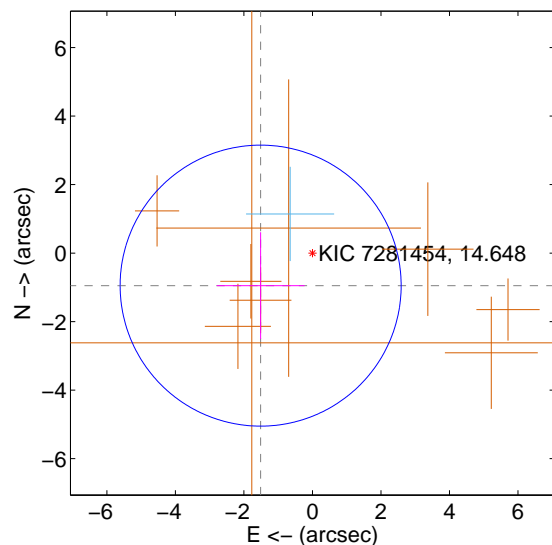
Supplemental centroid analysis for 007281454-07. Kepler magnitude: 14.65. Transit SNR 8.85

There are 1 quarters with good PRF difference image offsets

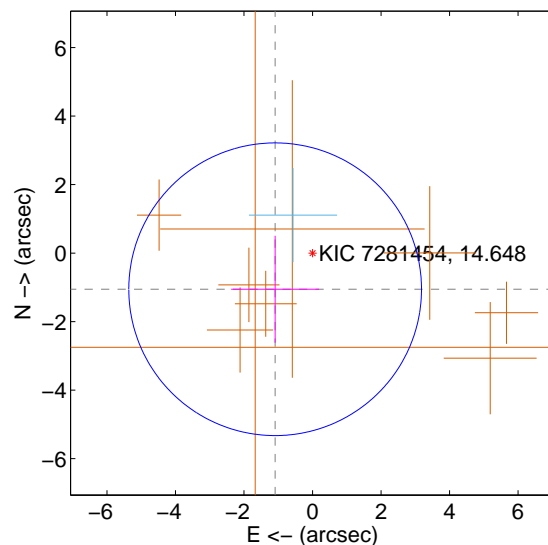
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.786 ± 1.367	1.31	1.512 ± 1.283	-0.950 ± 1.561
PRF-fit source offset from KIC position	1.518 ± 1.424	1.07	1.091 ± 1.283	-1.055 ± 1.561
photometric centroid source offset	1.29 ± 0.89	1.46	-1.28 ± 0.89	0.15 ± 0.85

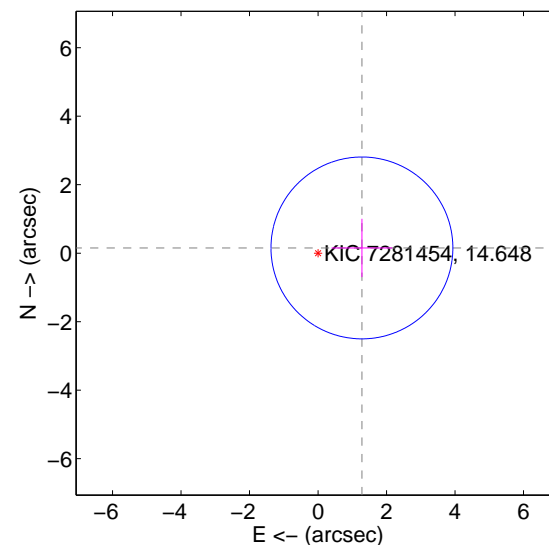
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

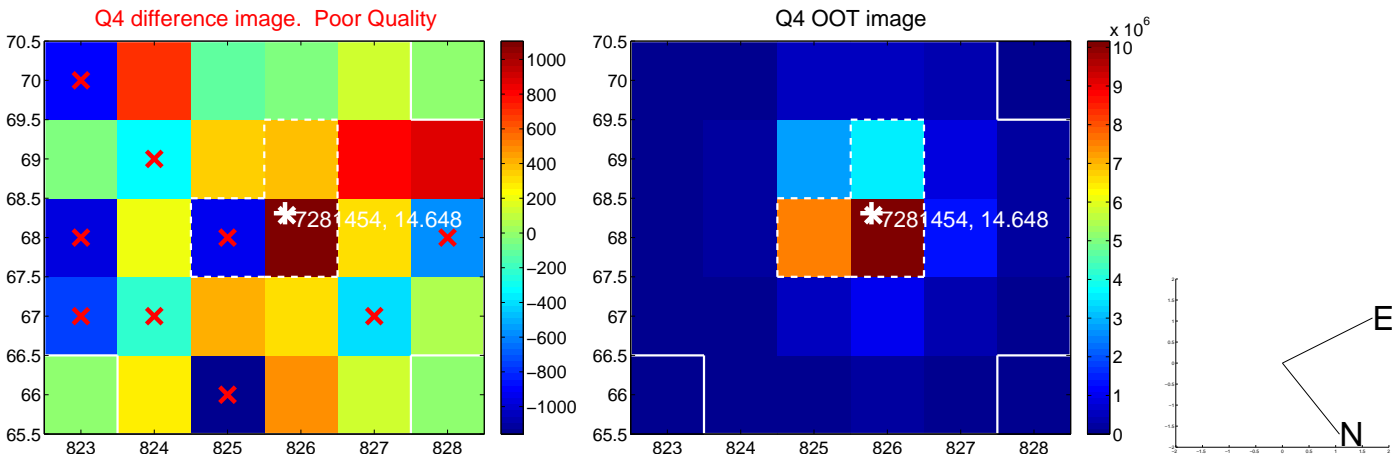
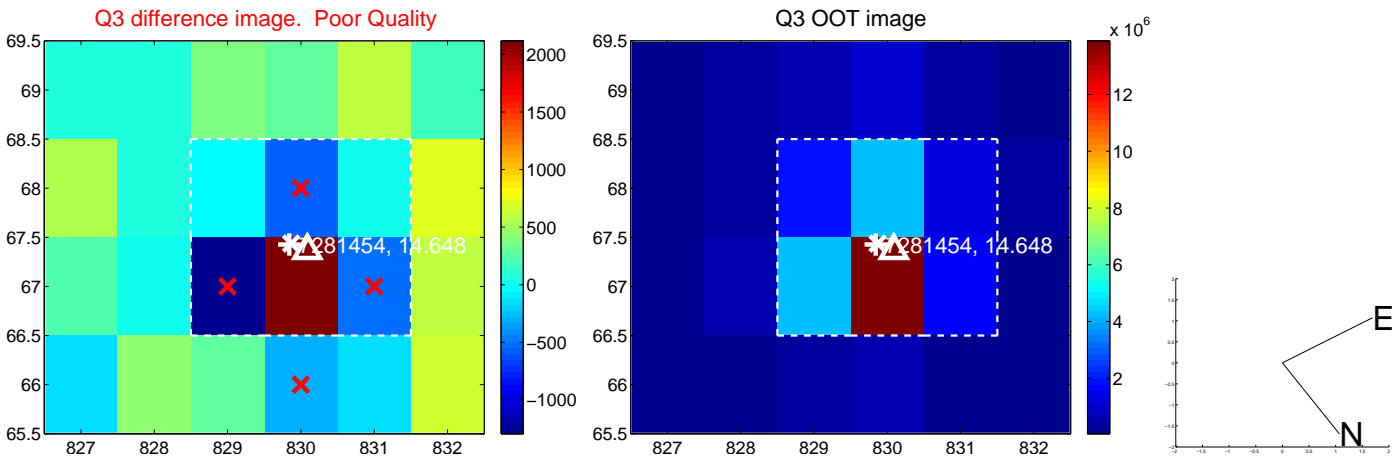
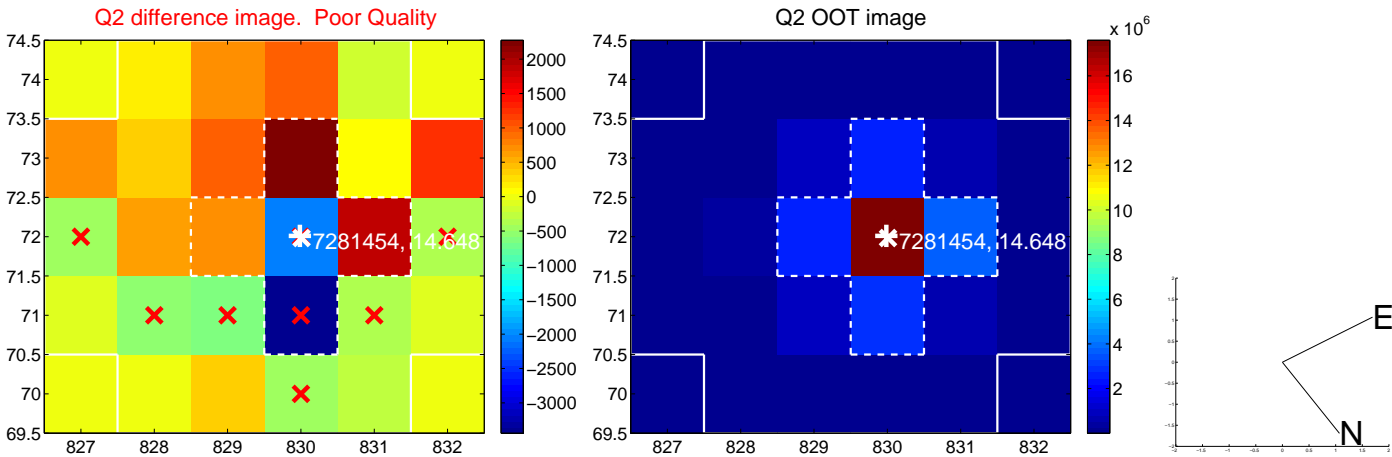
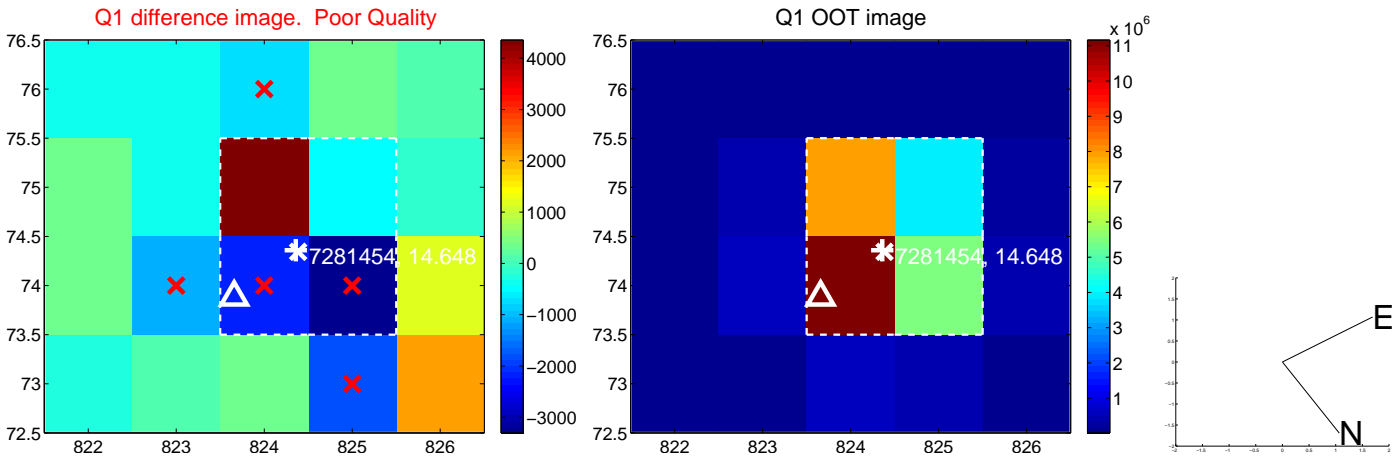


offset from photometric centroids

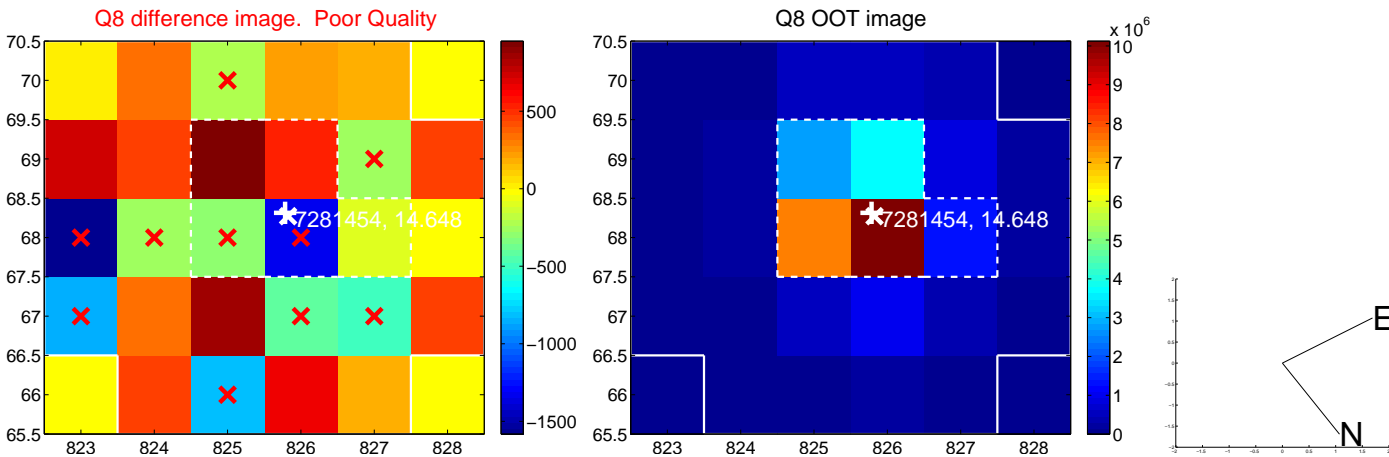
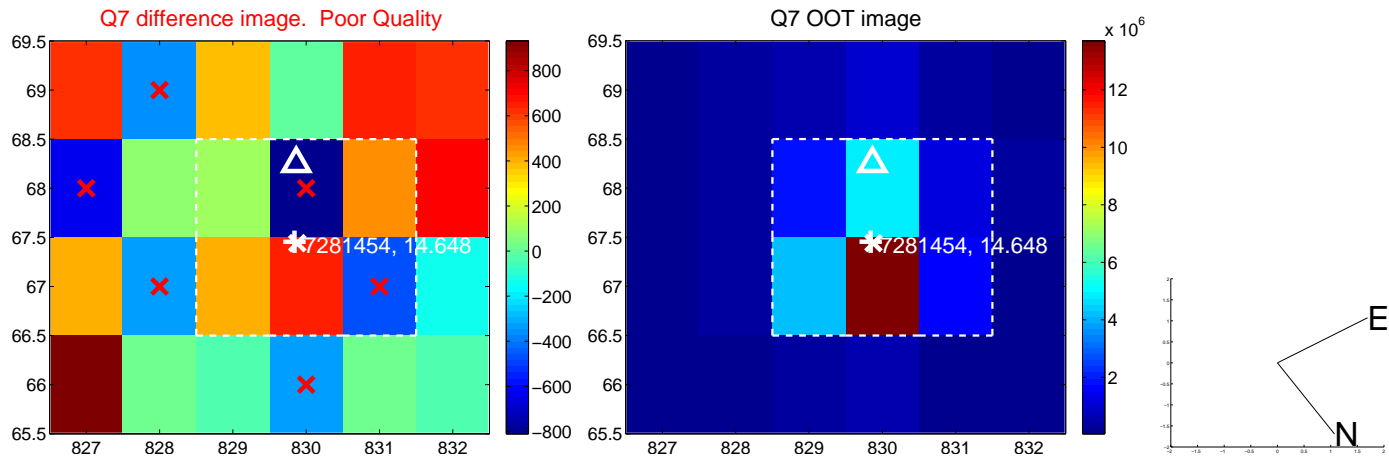
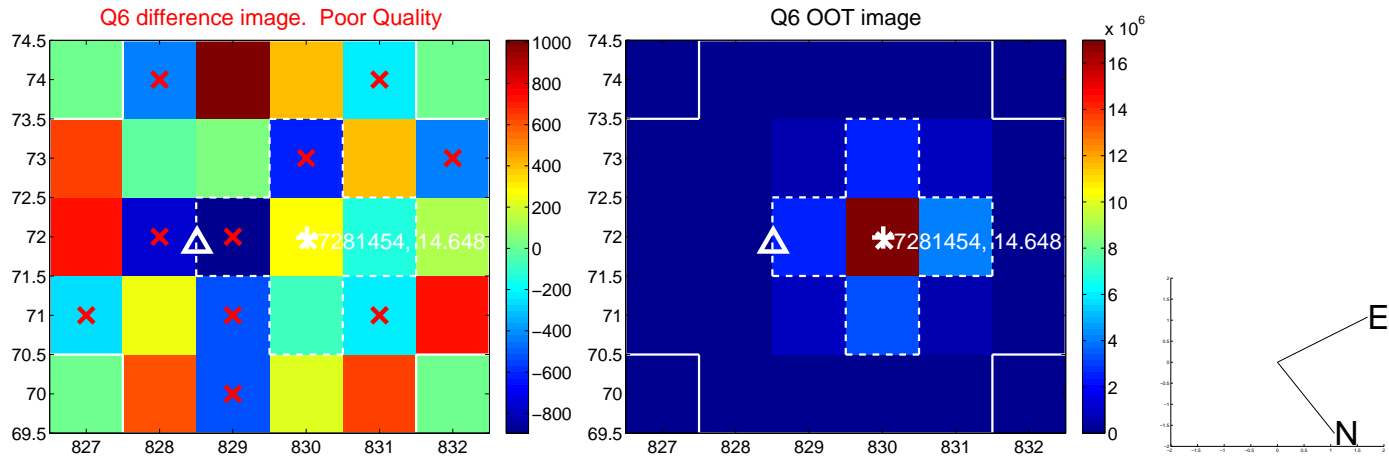
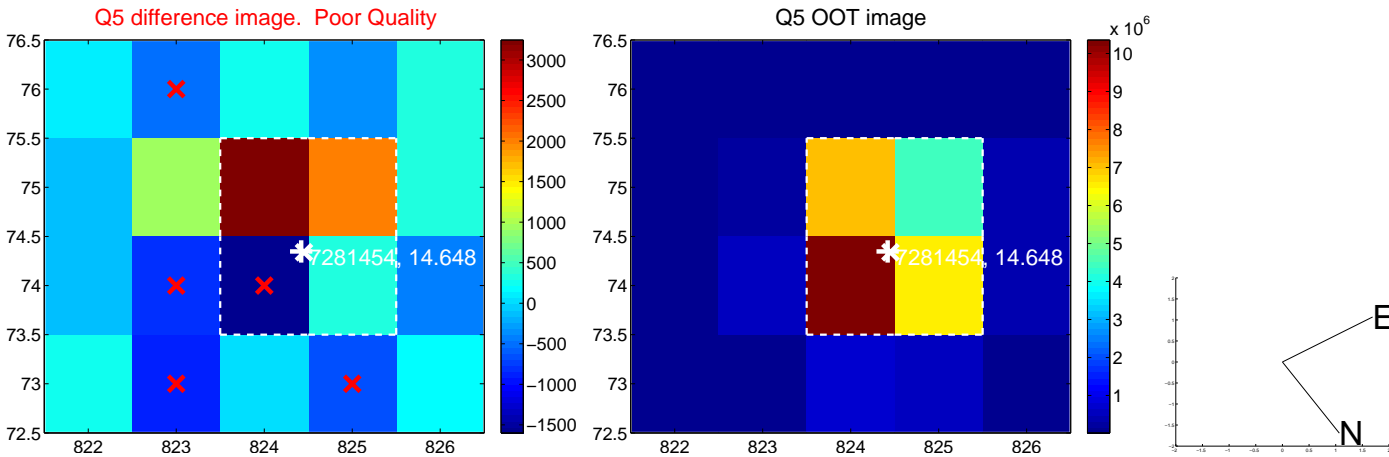


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

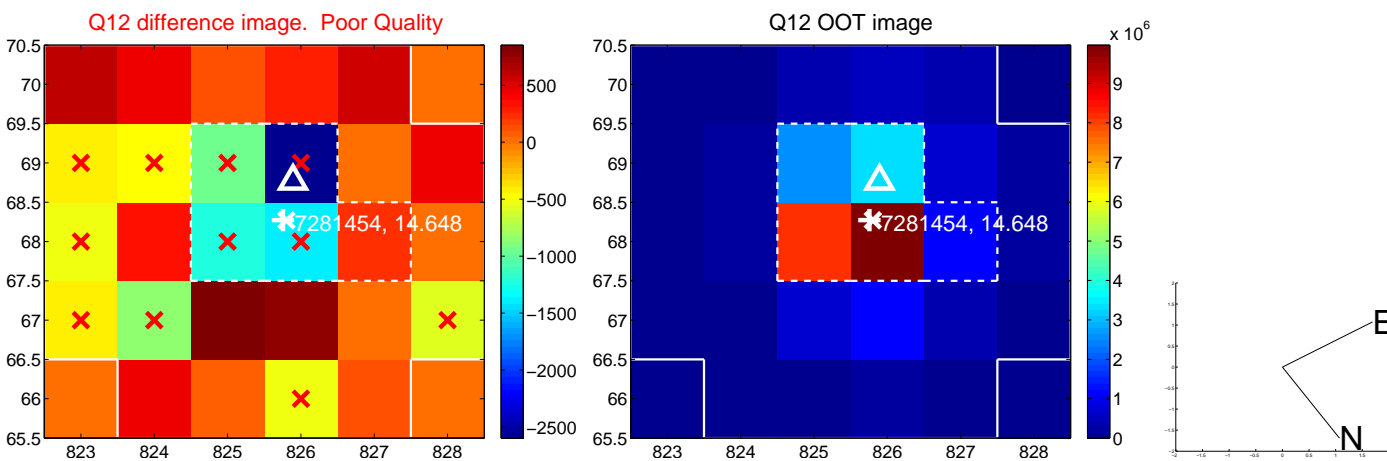
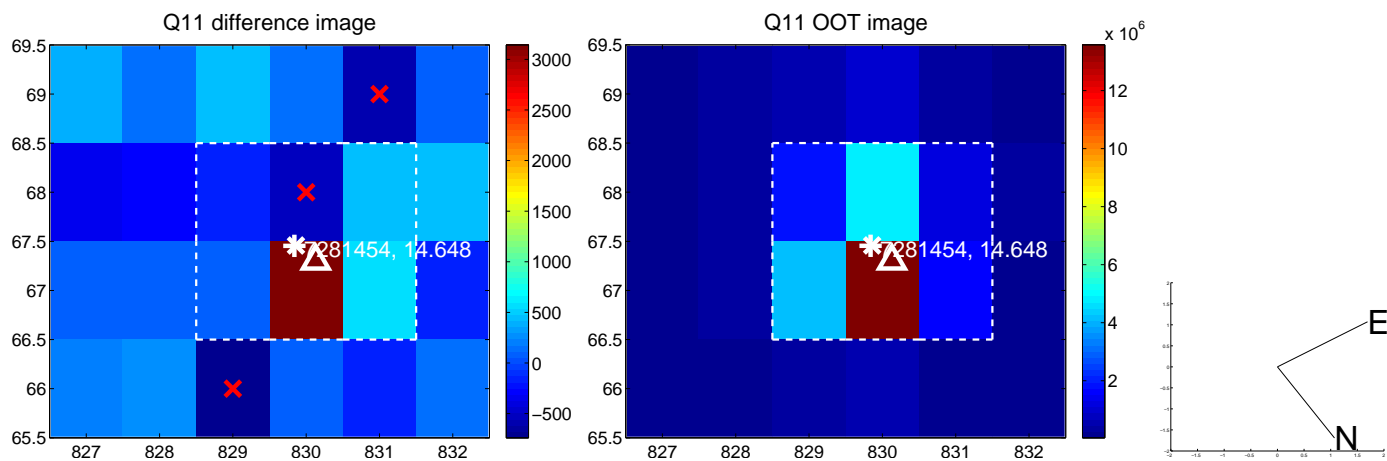
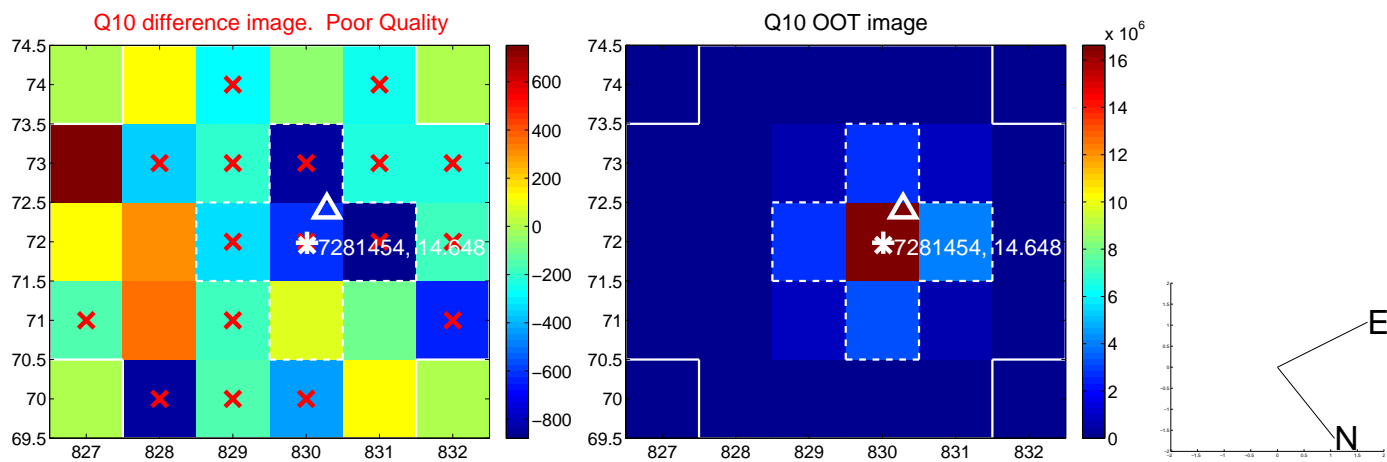
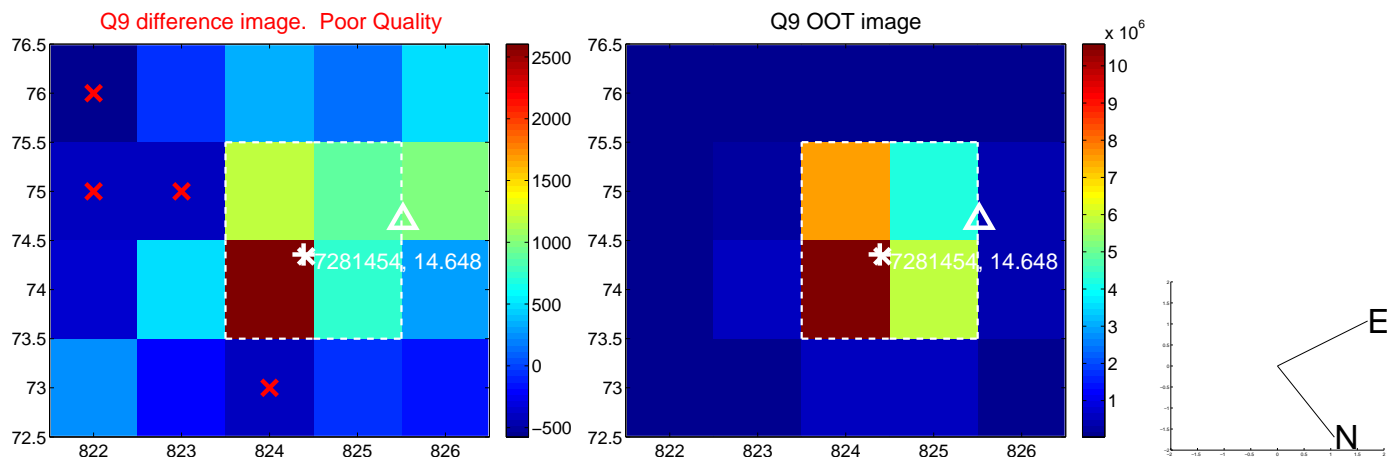
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



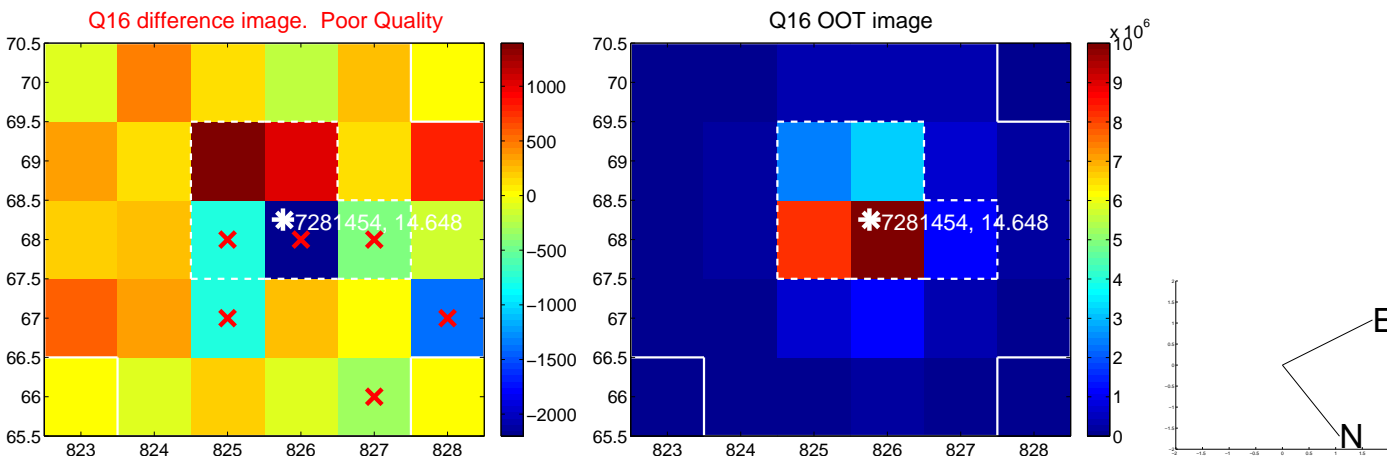
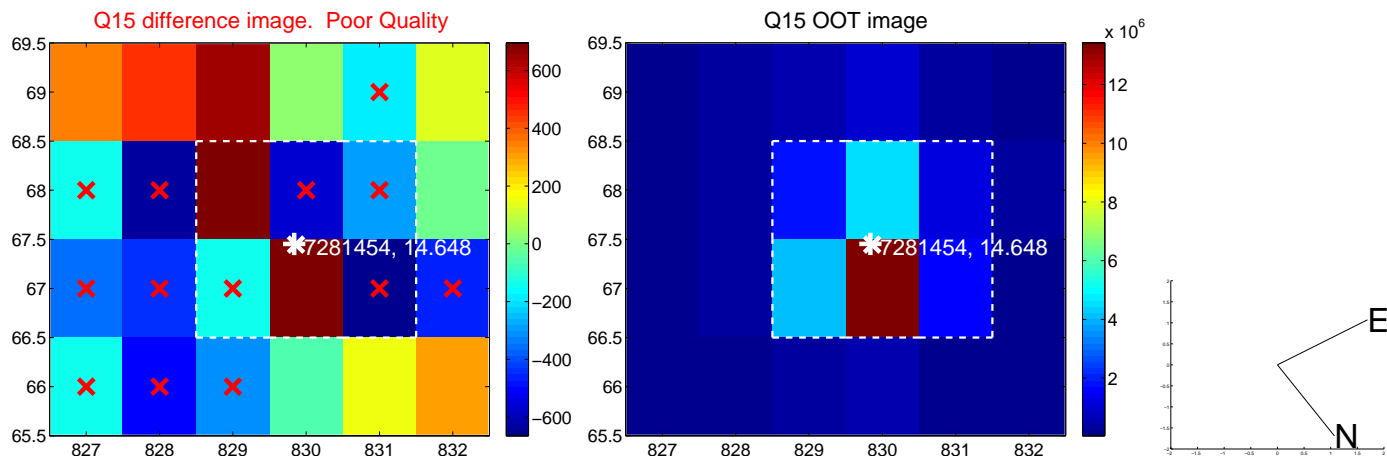
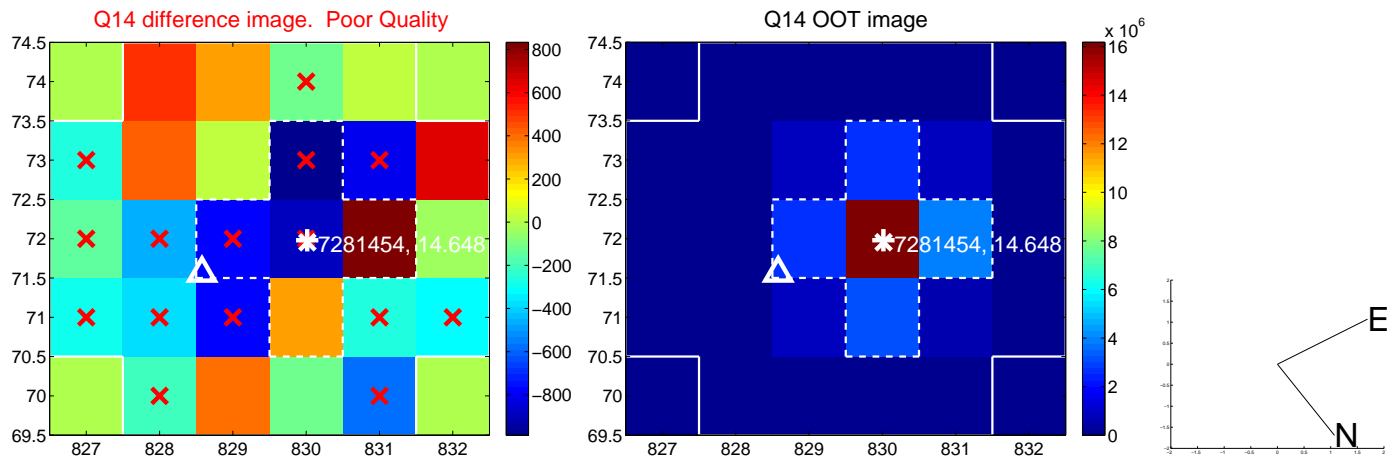
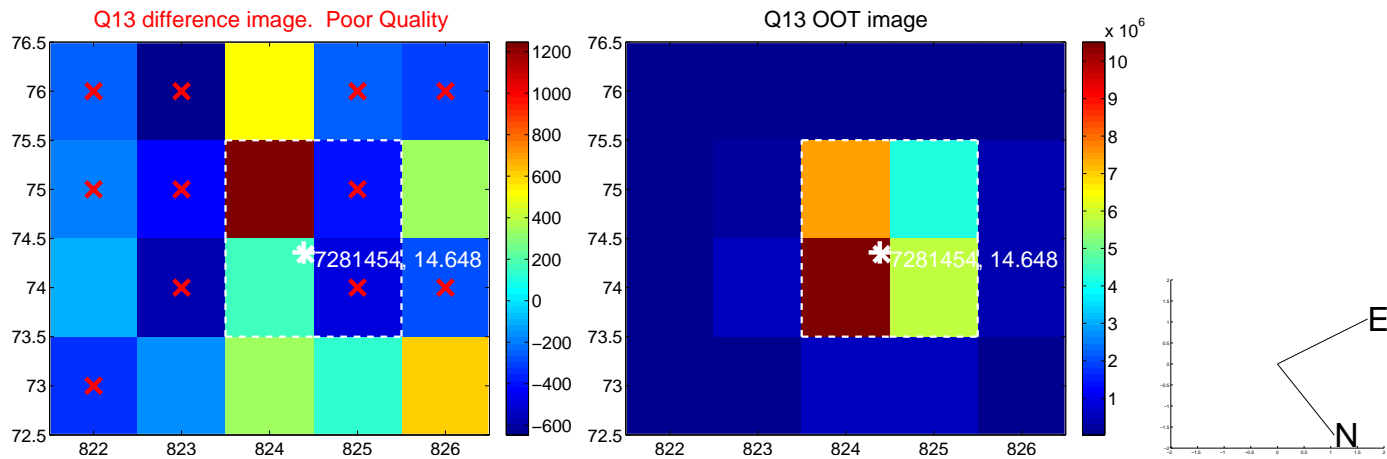
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



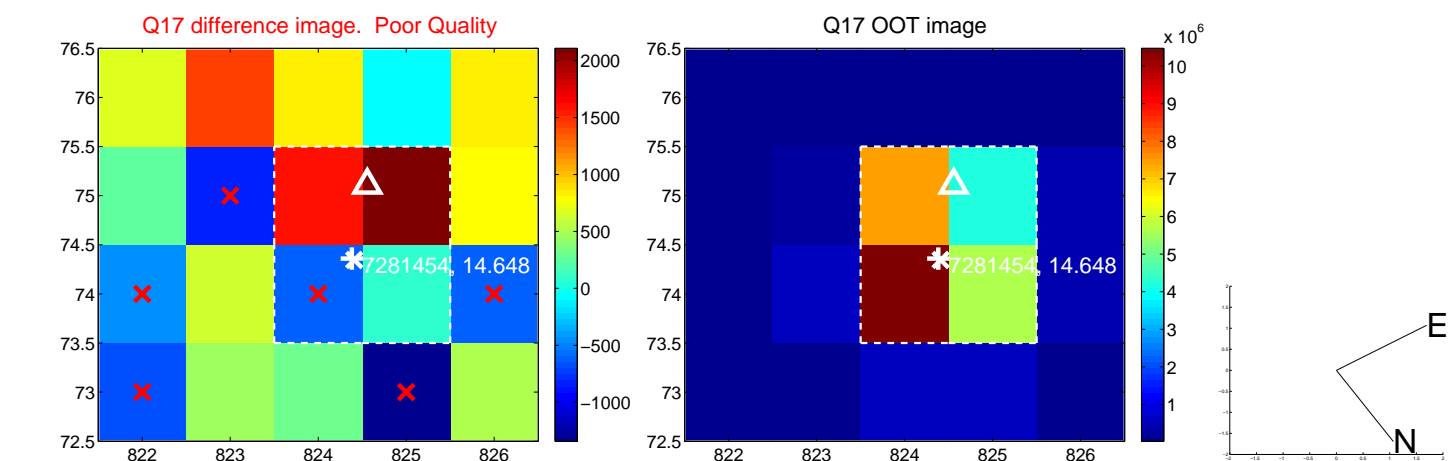
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



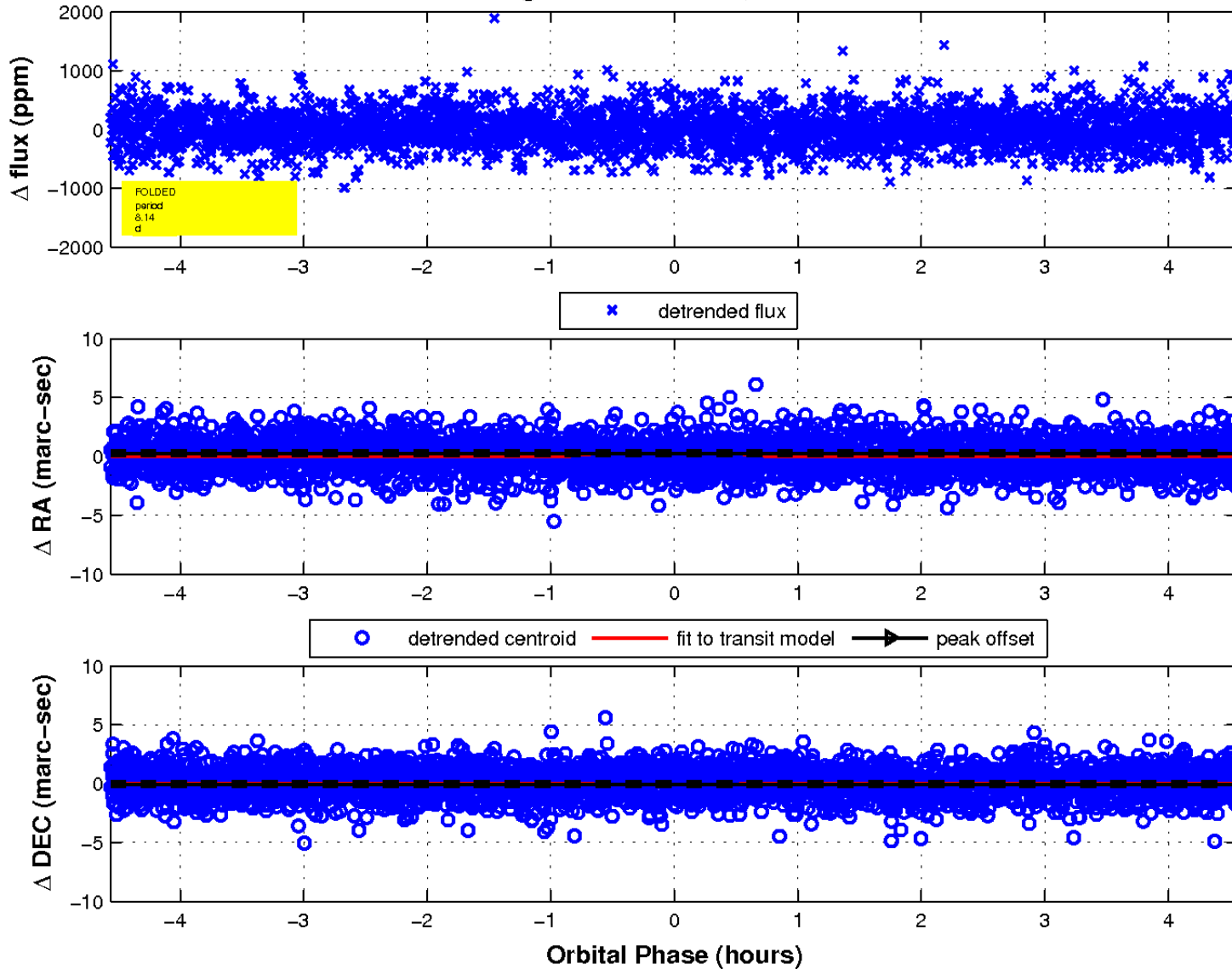
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

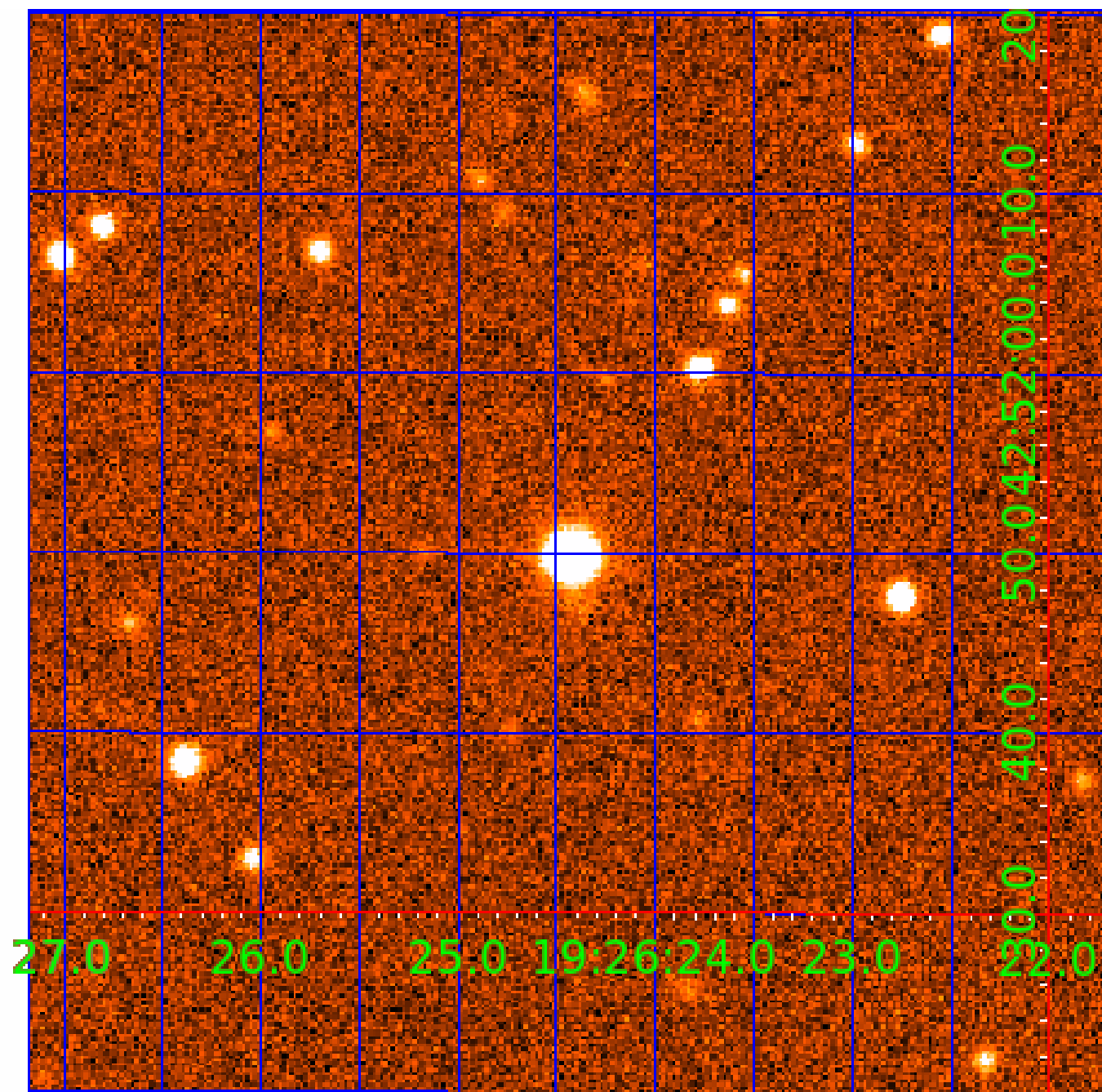


fluxWeightedCentroids, Planet 7 of 8



UKIRT Image

Declination



KIC 007281454

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})
007281454-01	OBS	3055.01	0.566695	131.938748	8.1	4.252	10.4	3.0	0.55	5000	0.16	1380.46
007281454-02	OBS	No	10.739148	137.537077	210.7	1.193	11.1	7.7	0.55	5000	0.85	27.32
007281454-03	OBS	No	5.789677	133.205705	680.8	0.712	15.0	17.3	0.55	5000	1.46	62.27
007281454-04	OBS	No	12.853532	142.647659	818.3	0.545	12.5	20.2	0.55	5000	1.65	21.50
007281454-05	OBS	No	5.276778	131.556097	412.6	0.736	14.5	15.6	0.55	5000	1.17	70.47
007281454-06	OBS	No	4.369578	134.114310	246.7	0.943	12.5	12.0	0.55	5000	0.87	90.62
007281454-07	OBS	No	8.141625	136.843060	217.1	1.522	13.5	8.9	0.55	5000	0.81	39.52
007281454-08	OBS	No	3.770951	134.193884	109.6	0.575	8.4	4.0	0.55	5000	0.61	110.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007281454-01	OBS	FP	0.00	1	0	0	1	LPP_DV—EPHEM_MATCH
007281454-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
007281454-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007281454-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007281454-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007281454-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007281454-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV
007281454-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

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

Ephemeris Match Information For 007281454-08

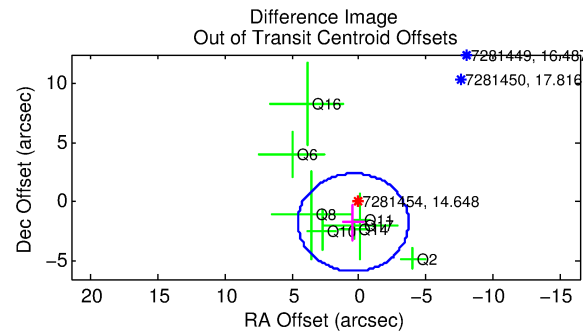
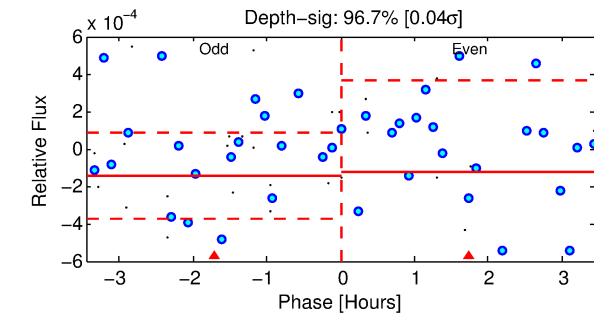
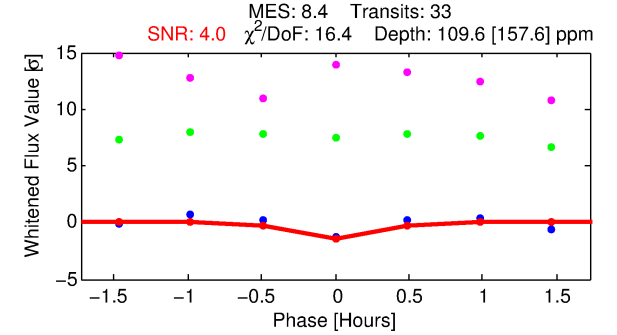
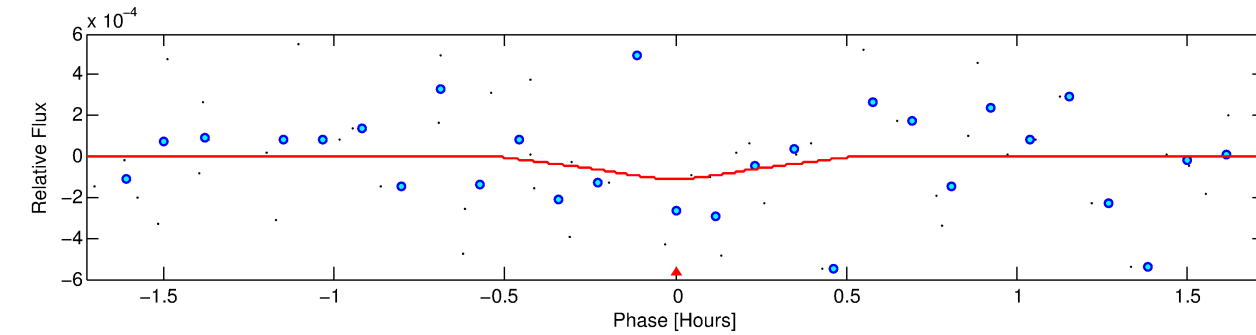
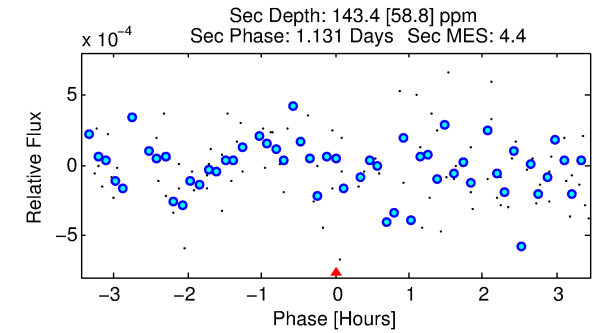
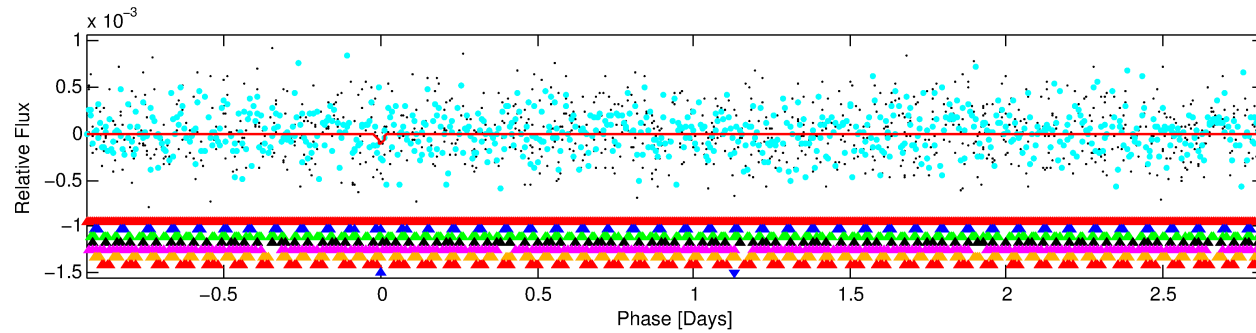
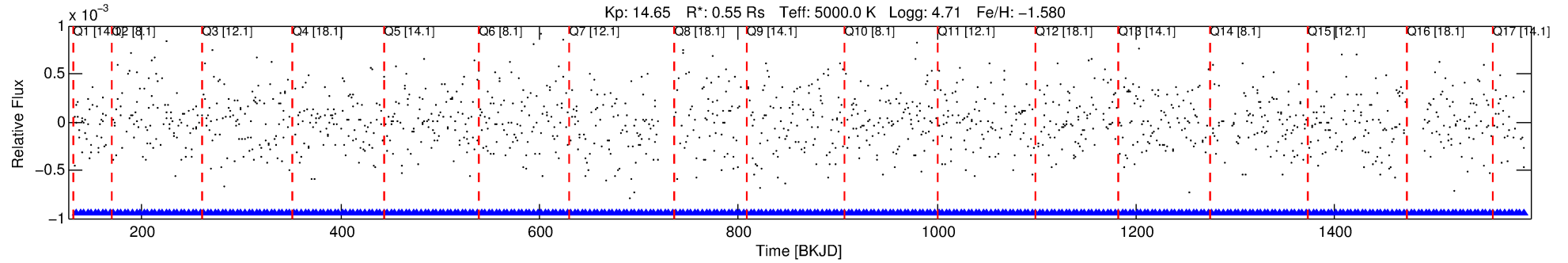
No Significant Match Found

DV One-Page Summary

KIC: 7281454 Candidate: 8 of 8 Period: 3.771 d

KOI: K03055 Corr: No Ephemeris Match

Kp: 14.65 R*: 0.55 Rs Teff: 5000.0 K Logg: 4.71 Fe/H: -1.580



DV Fit Results:

Period = 3.77095 [0.00015] d
Epoch = 134.1939 [0.0178] BKJD
Rp/R* = 0.0102 [0.1713]
a/R* = 44.25 [3669.62]
b = 0.49 [127.50]
Seff = 110.29 [16.13]
Teff = 826 [30] K
Rp = 0.61 [10.26] Re
a = 0.0391 [0.0020] AU
Ag = 326.09 [11003.09] [0.03σ]
Teffp = 5429 [45799] K [0.10σ]

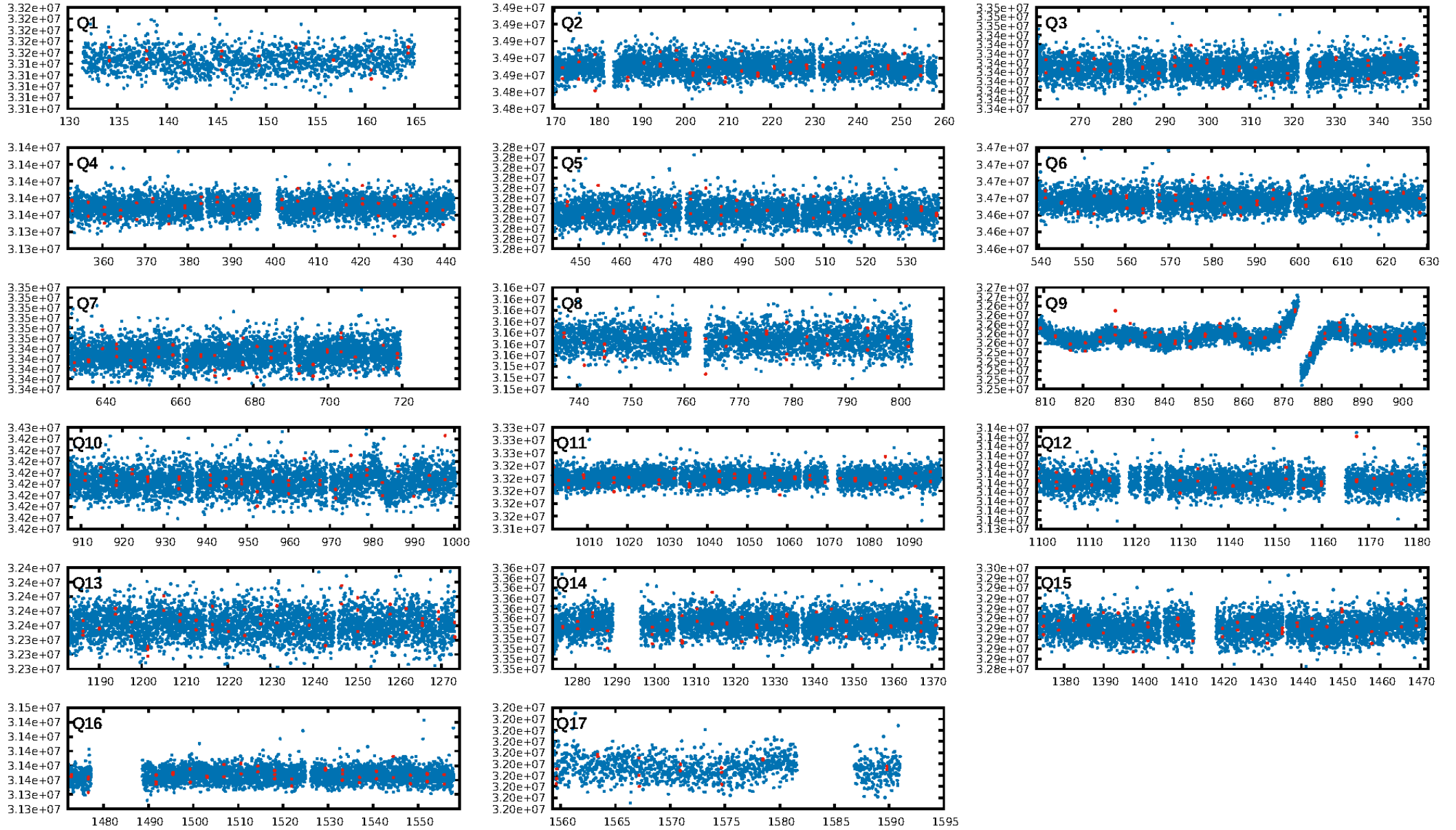
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [17.92σ]
LongPeriod-sig: 100.0% [13.00σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: 5.78e-08
RollingBand-fgt: 1.00 [31/31]
GhostDiagnostic-chr: 0.5443
Centroid-sig: 6.3%
Centroid-so: 2.688 arcsec [1.37σ]
OotOffset-rm: 1.776 arcsec [1.29σ]
KicOffset-rm: 1.820 arcsec [1.41σ]
OotOffset-st: 4/1/2/1 [8]
KicOffset-st: 4/1/2/1 [8]
DiffImageQuality-fgm: 0.12 [1/8]
DiffImageOverlap-fno: 0.00 [0/17]

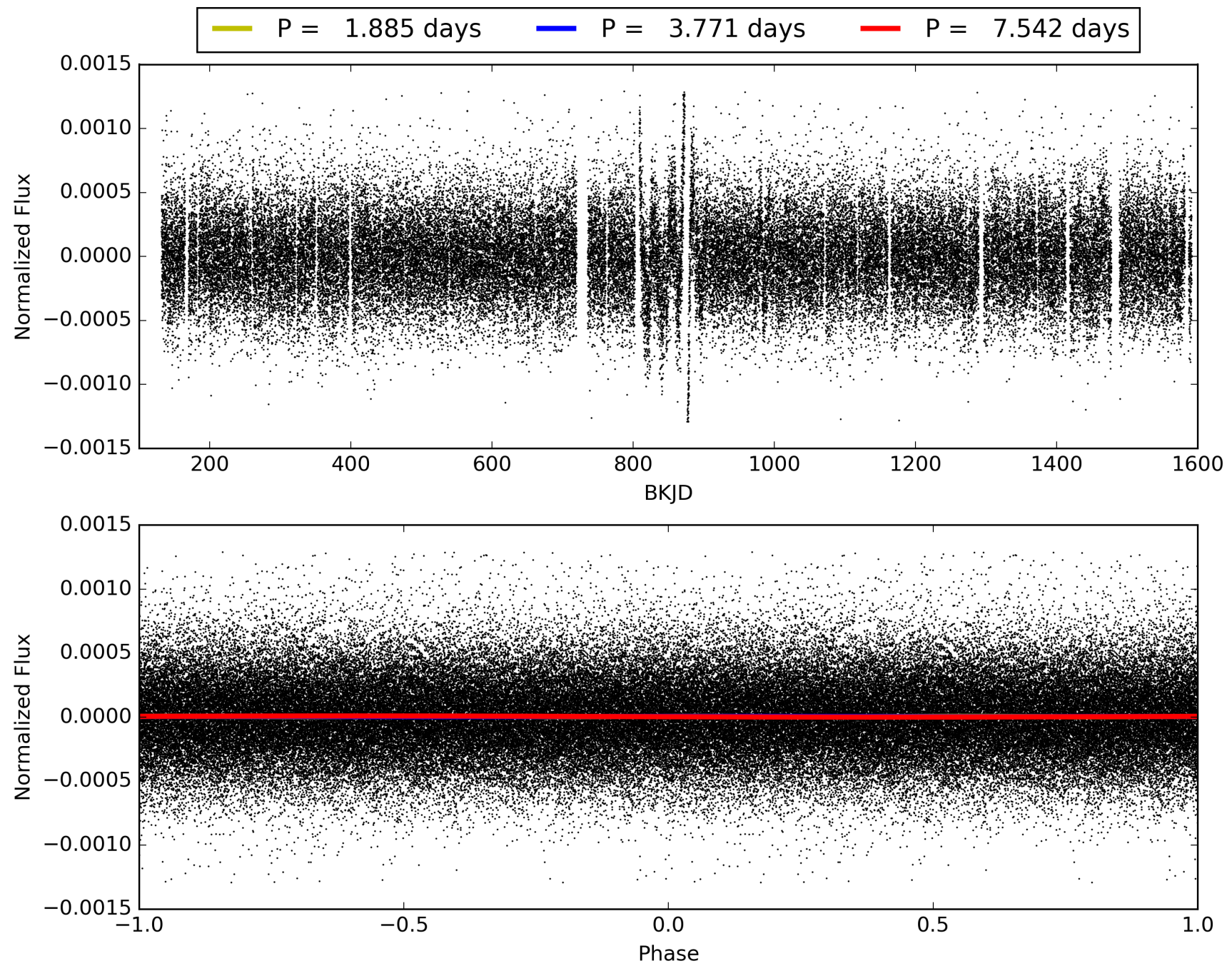
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 10:47:02 Z

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

TCE 007281454-08, PDC Light Curves

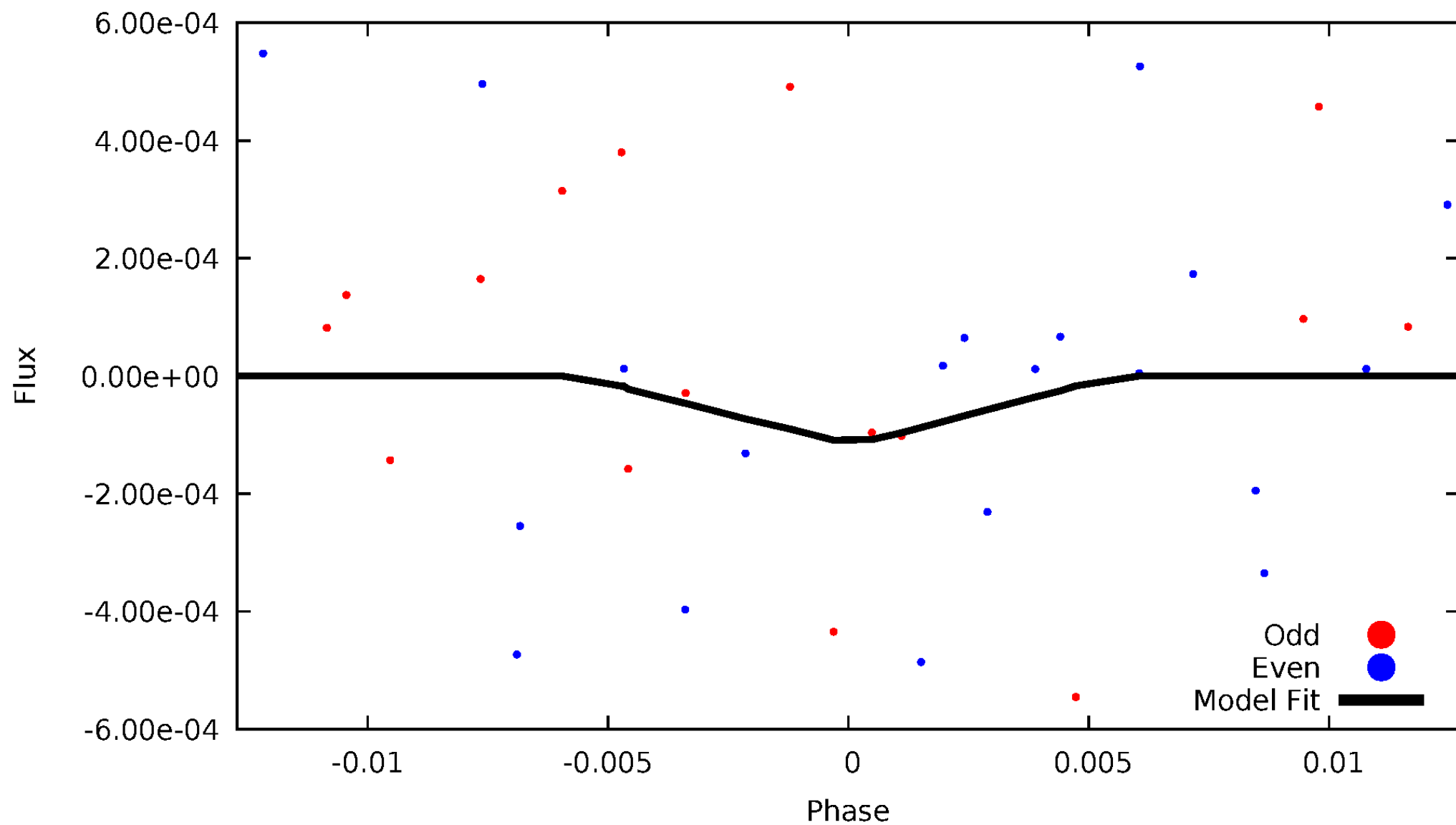


TCE 007281454-08



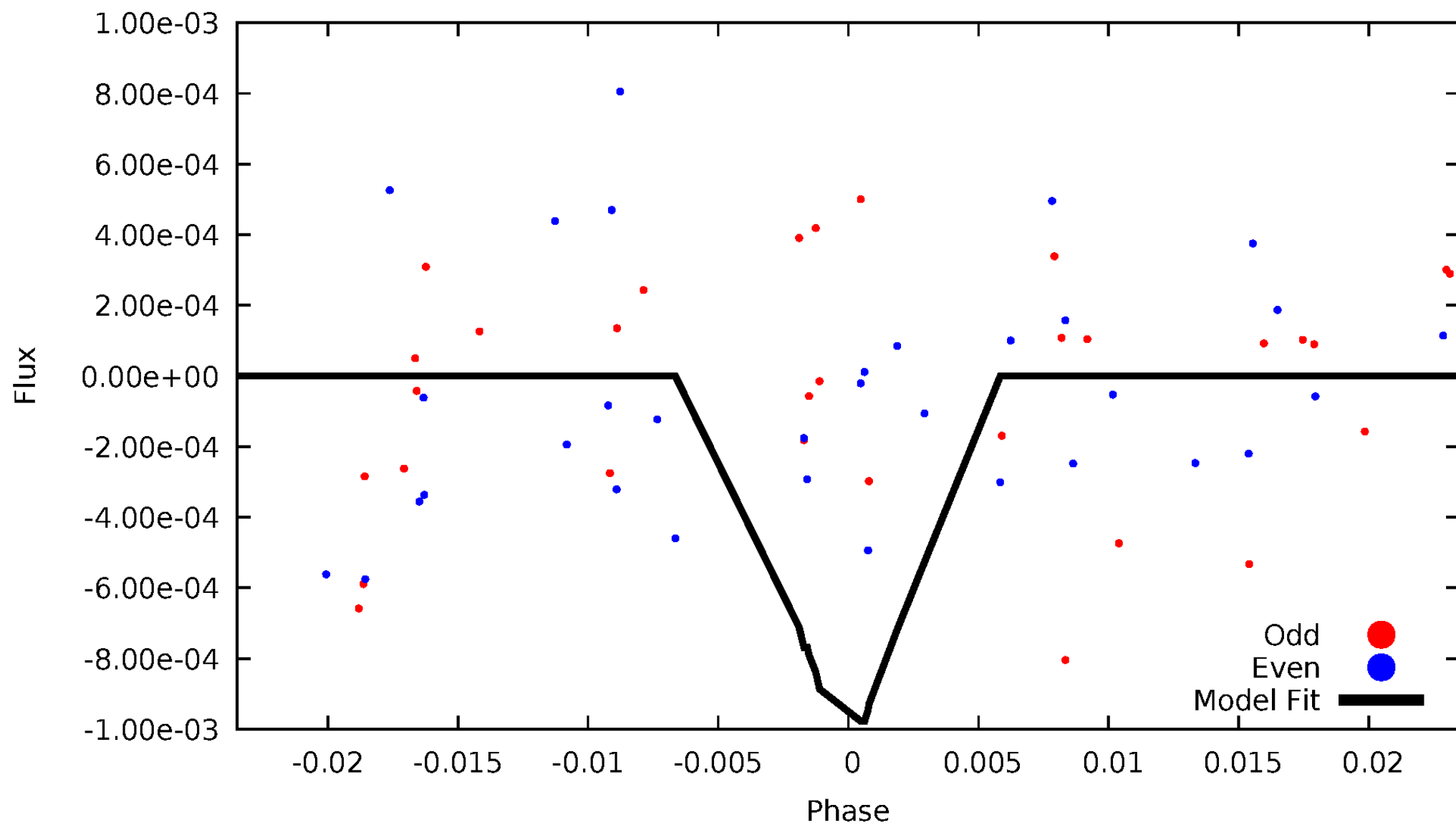
DV Odd/Even

TCE 007281454-08



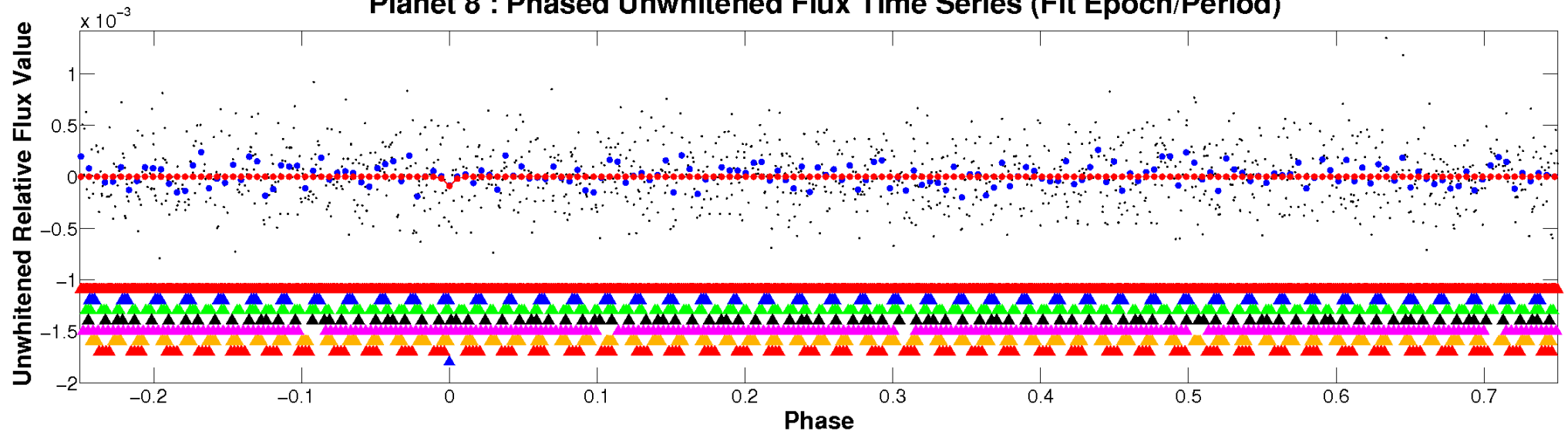
ALT Odd/Even

TCE 007281454-08

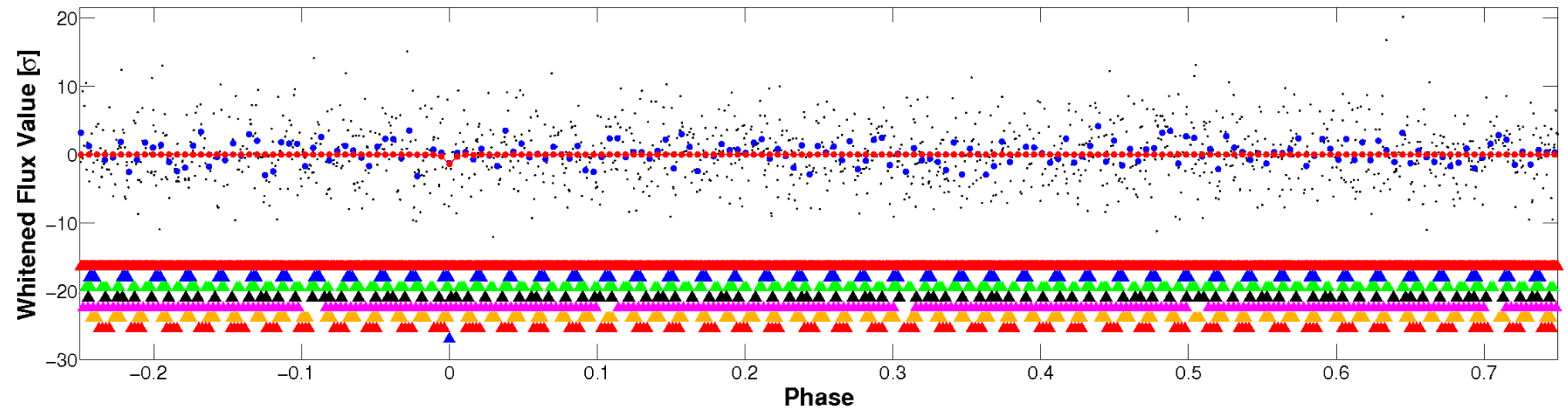


Non-Whitened Vs. Whitened Light Curve

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

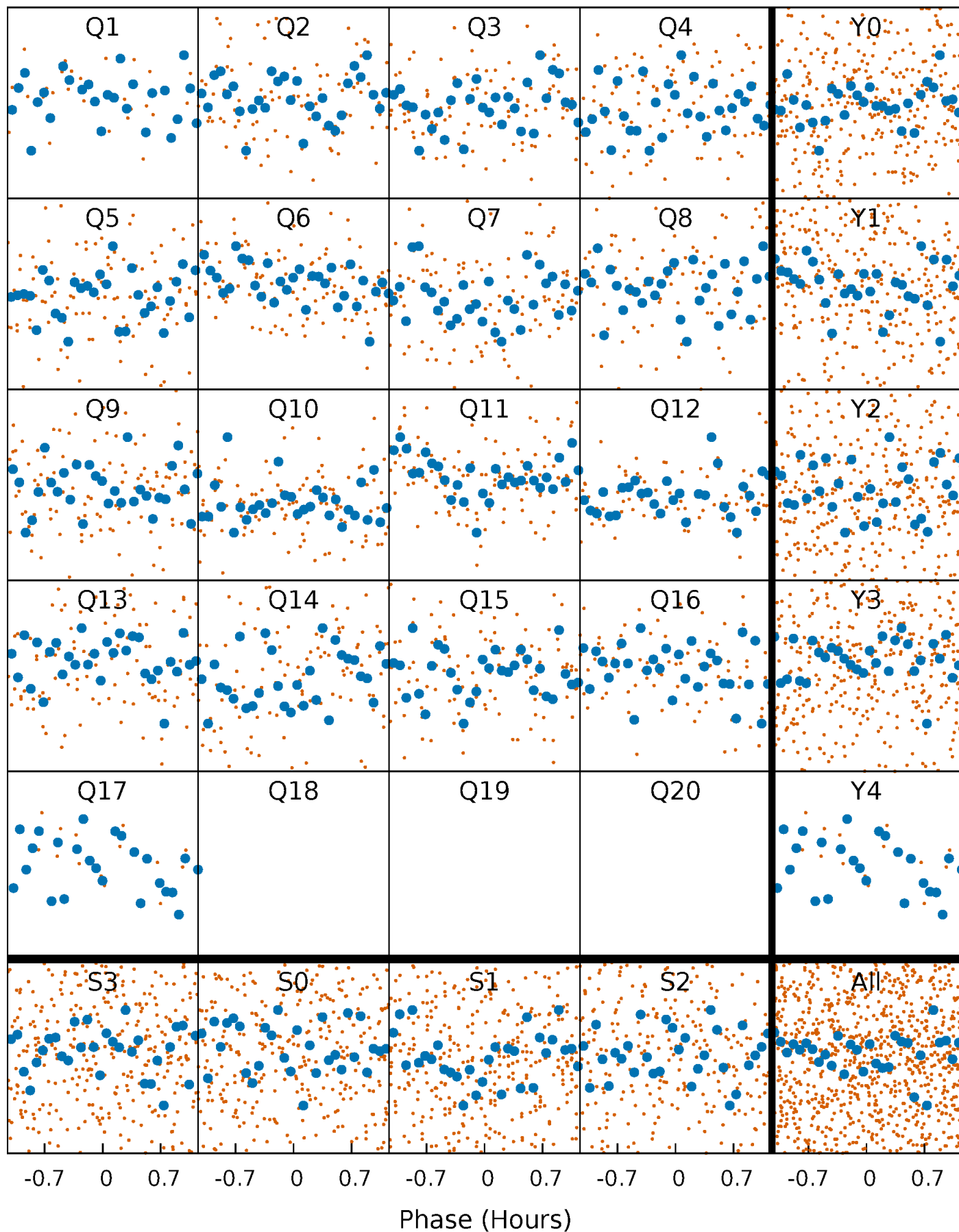


Planet 8 : Phased Whitened Flux Time Series (Fit Epoch/Period)



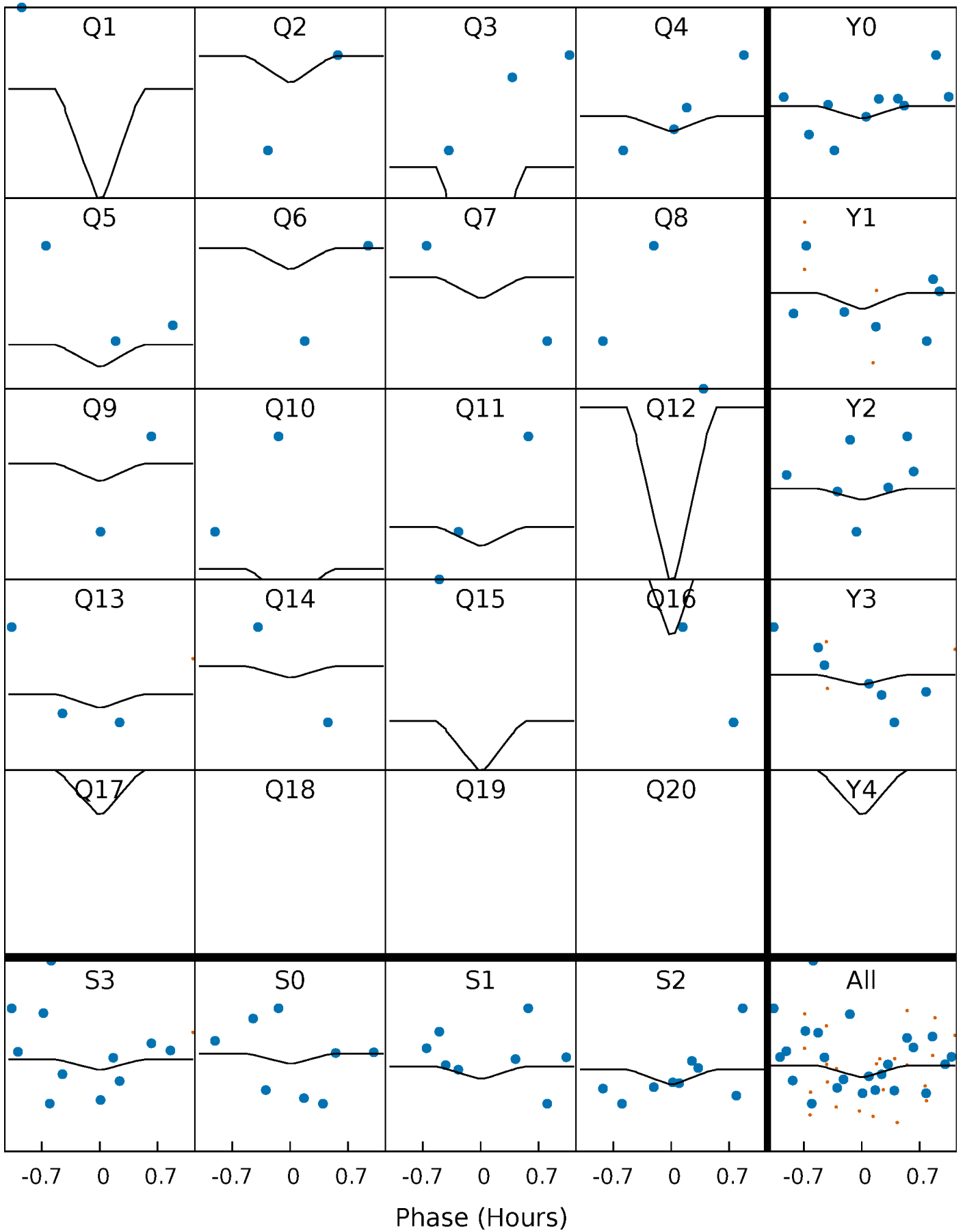
PDC Quarter-Phased Transit Curves

TCE 007281454-08 P= 3.770951 Days $T_0=134.193884$ (BKJD)



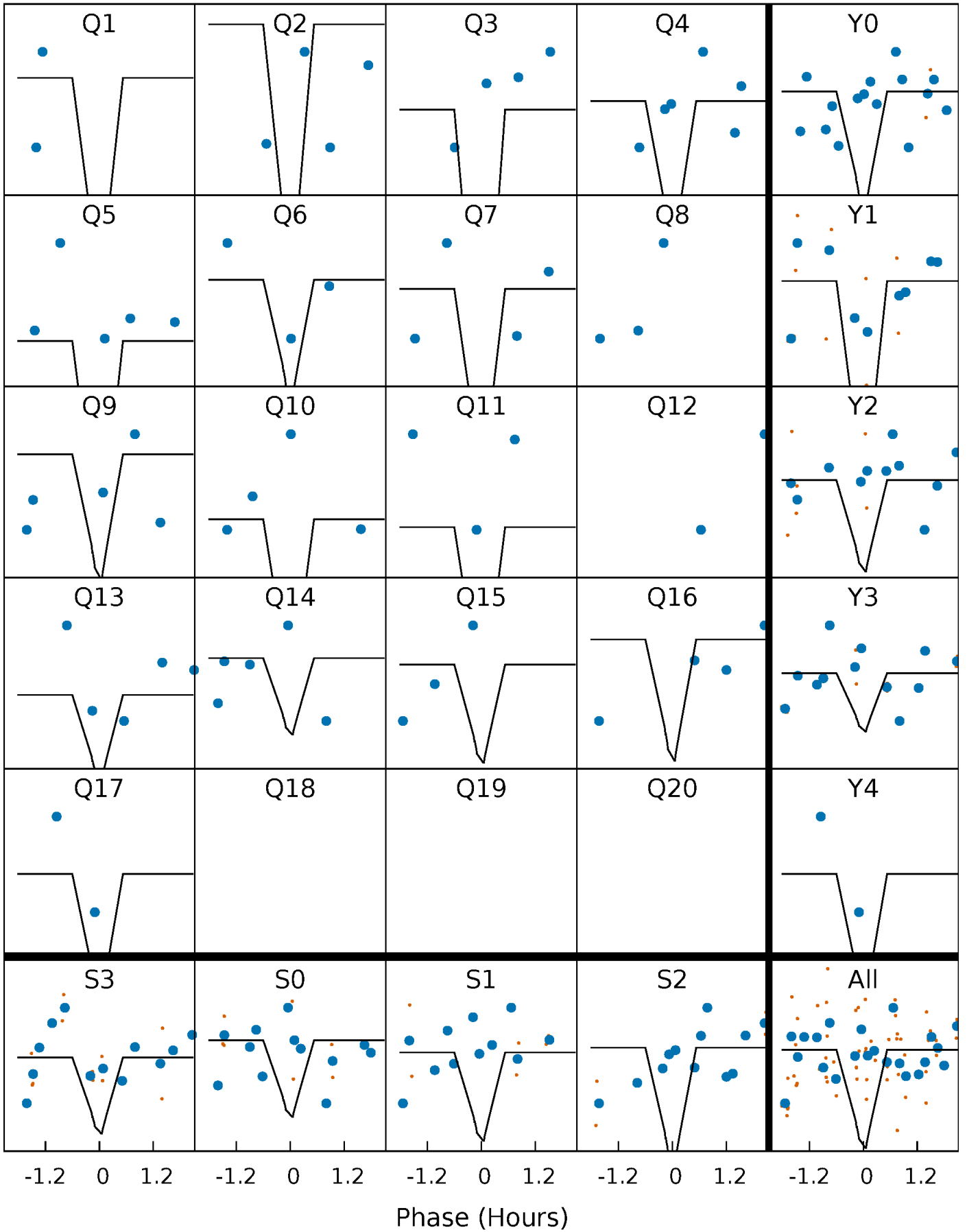
DV Quarter-Phased Transit Curves

TCE 007281454-08 P= 3.770951 Days $T_0=134.193884$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

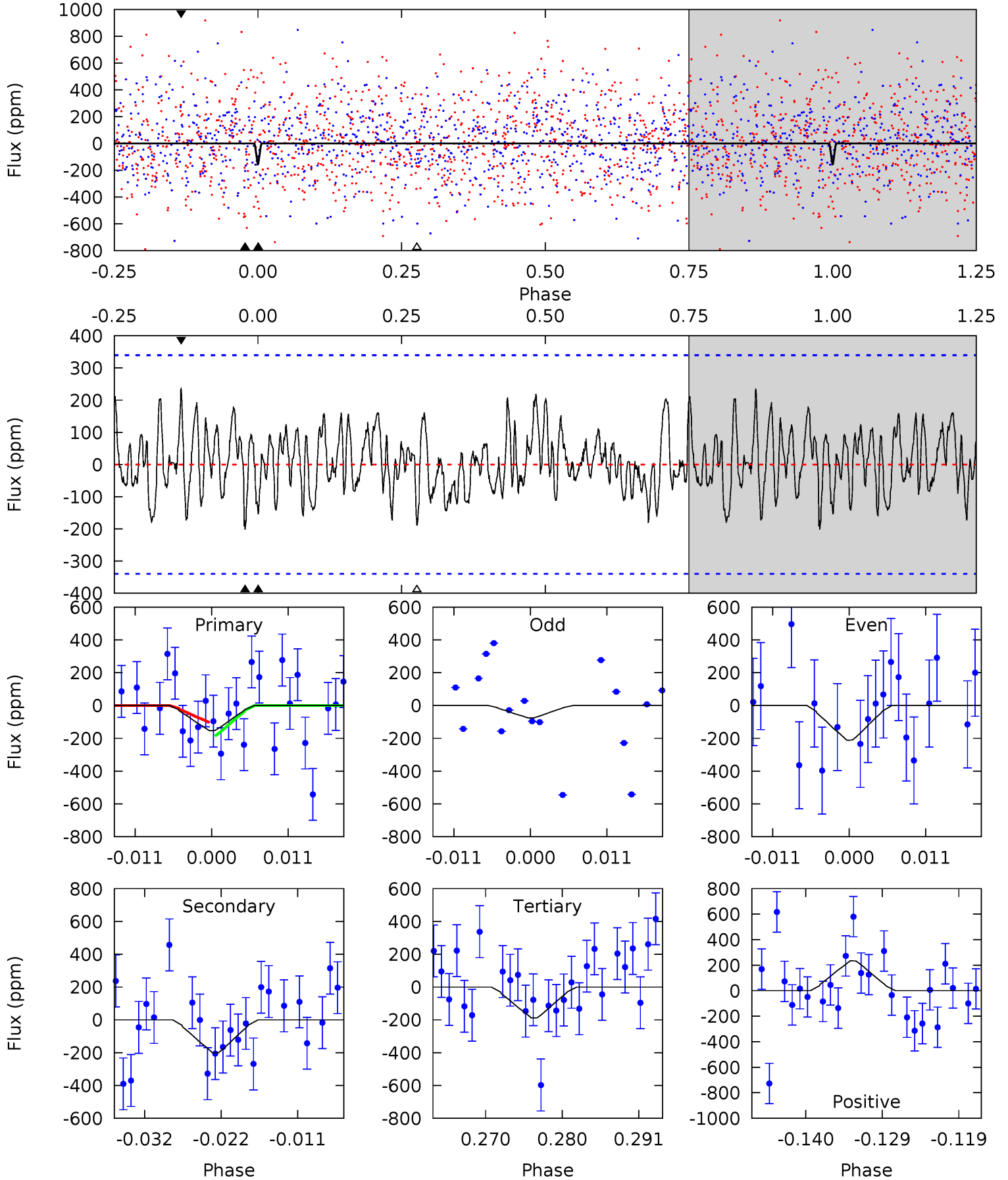
TCE 007281454-08 P= 3.770865 Days $T_0=134.207021$ (BKJD)



DV Model-Shift Uniqueness Test

007281454-08, P = 3.770951 Days, E = 130.422933 Days

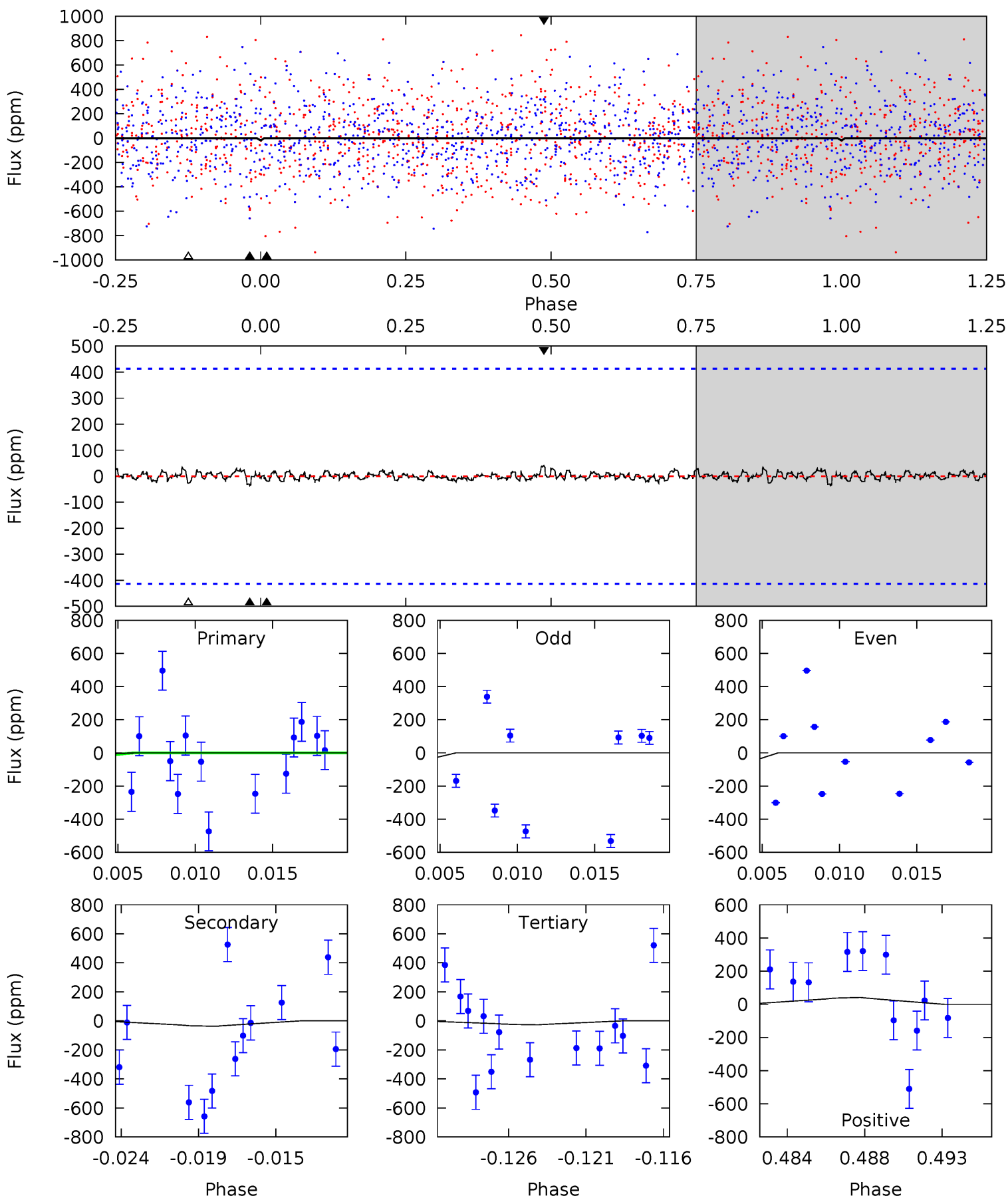
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.27	2.98	2.79	3.47	5.01	2.55	1.27	-0.52	-1.20	0.19	-0.49	1.00	0	0.54	0.61



Alt Model-Shift Uniqueness Test

007281454-08, P = 3.770865 Days, E = 130.436156 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.23	0.46	0.34	0.51	5.16	2.82	0.15	-0.10	-0.28	0.12	-0.06	0.28	0	0.53	0.20



Stellar Parameters For KIC 007281454

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5000^{+150}_{-150}	$4.708^{+0.049}_{-0.021}$	$-1.580^{+0.300}_{-0.250}$	$0.549^{+0.025}_{-0.030}$	$0.561^{+0.038}_{-0.017}$	$4.773^{+0.785}_{-0.461}$
	+3%/-3%	+1%/-0%	+19%/-16%	+5%/-5%	+7%/-3%	+16%/-10%
Source	PHO1	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 007281454-08 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-202 ± 68	$7.13^{+7.84}_{-4.90}$	1149^{+38}_{-40}	2488^{+1023}_{-483}	$3.210^{+33.033}_{-2.483}$
Alt.	-37 ± 80	$7.55^{+7.95}_{-5.32}$	1148^{+38}_{-39}	1441^{+1142}_{-3619}	$0.311^{+3.934}_{-0.912}$

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

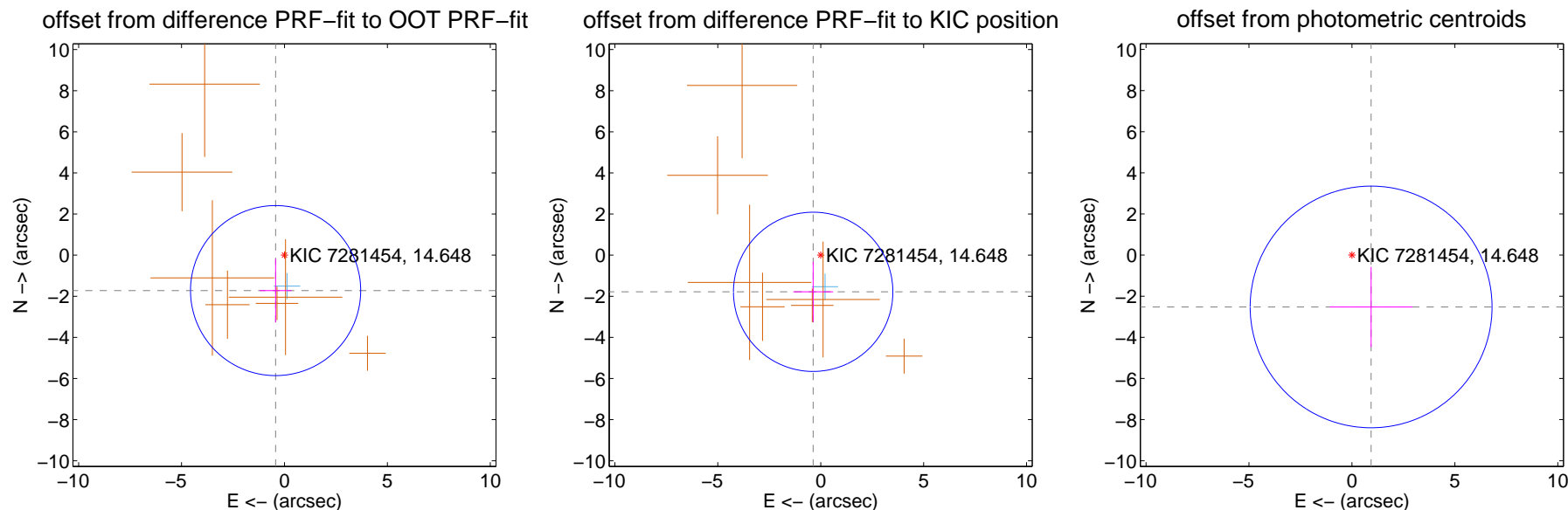
DV Centroid Data

Supplemental centroid analysis for 007281454-08. Kepler magnitude: 14.65. Transit SNR 4.01

There are 1 quarters with good PRF difference image offsets

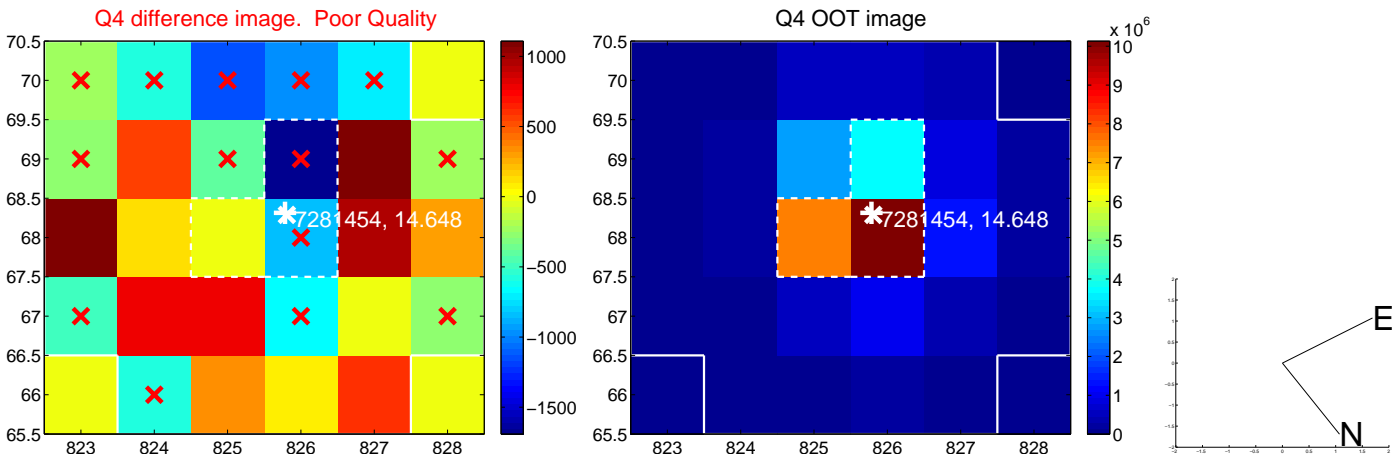
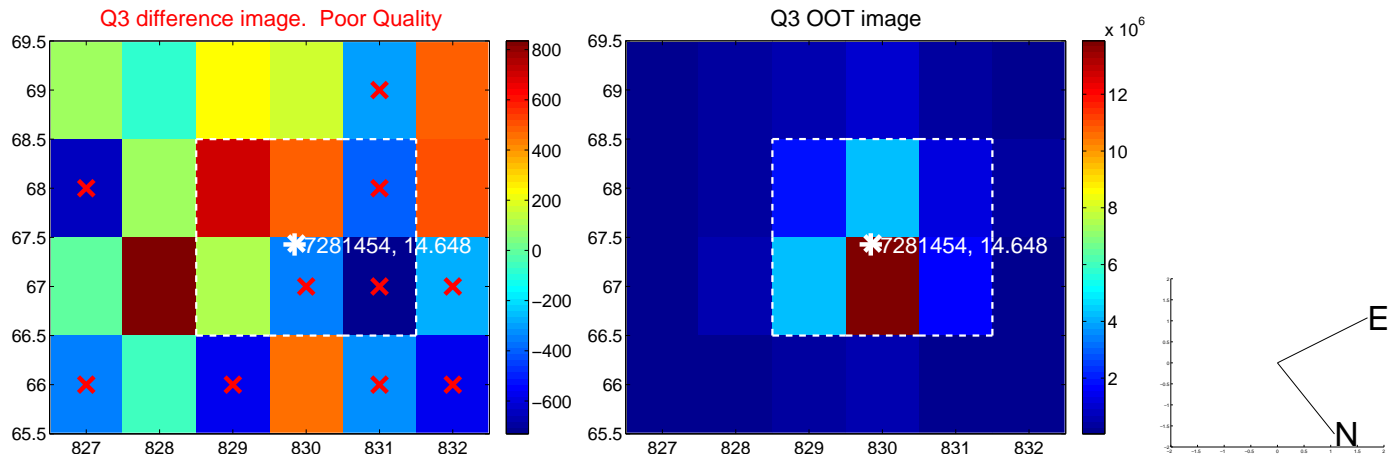
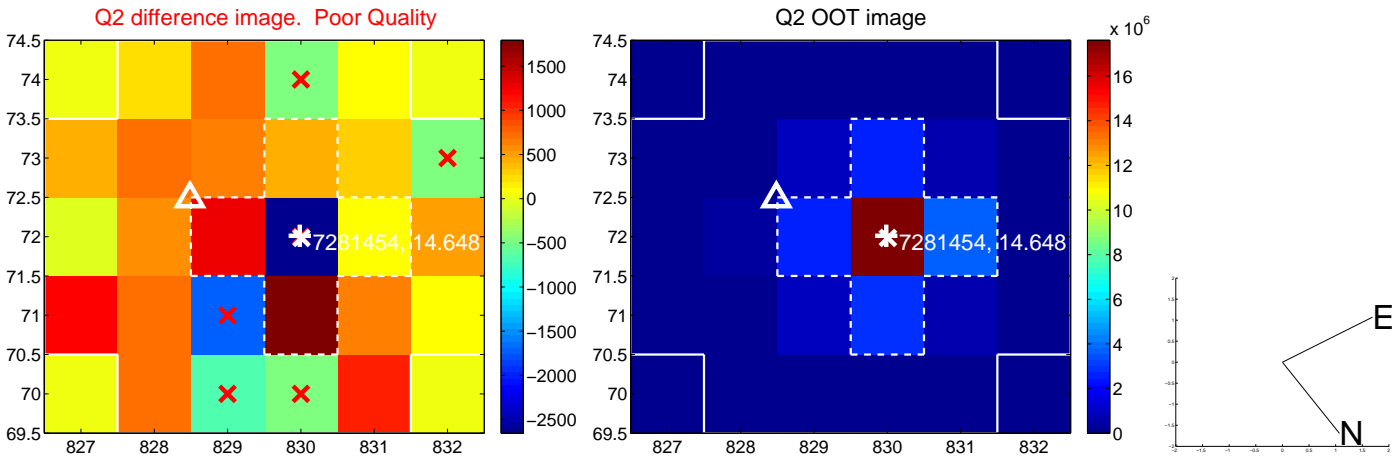
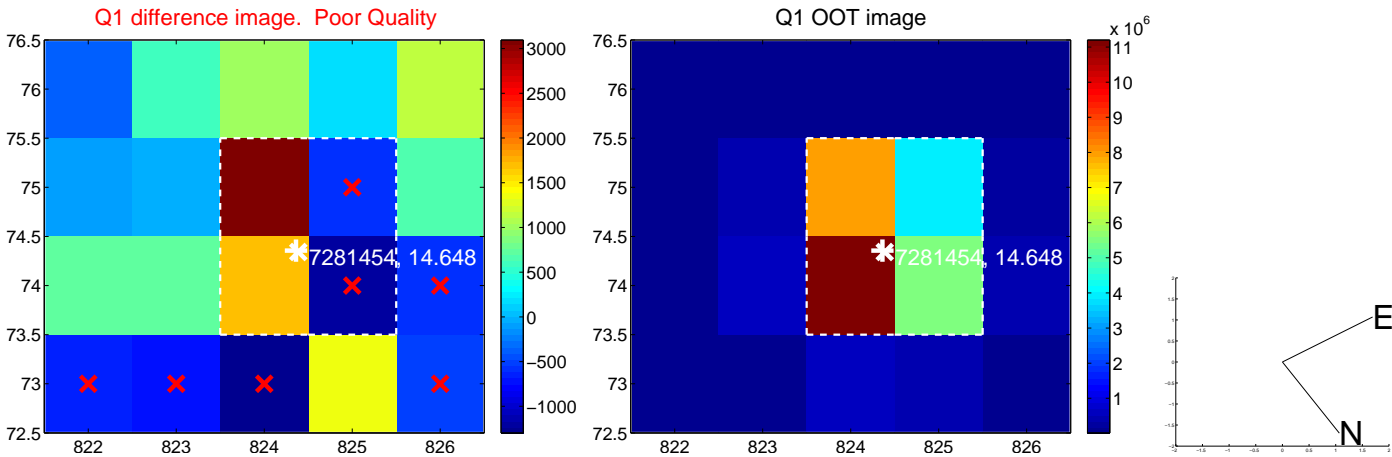
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.776 ± 1.378	1.29	0.431 ± 0.775	-1.723 ± 1.540
PRF-fit source offset from KIC position	1.820 ± 1.291	1.41	0.367 ± 0.969	-1.783 ± 1.465
photometric centroid source offset	2.69 ± 1.96	1.37	-0.93 ± 2.01	-2.52 ± 1.95

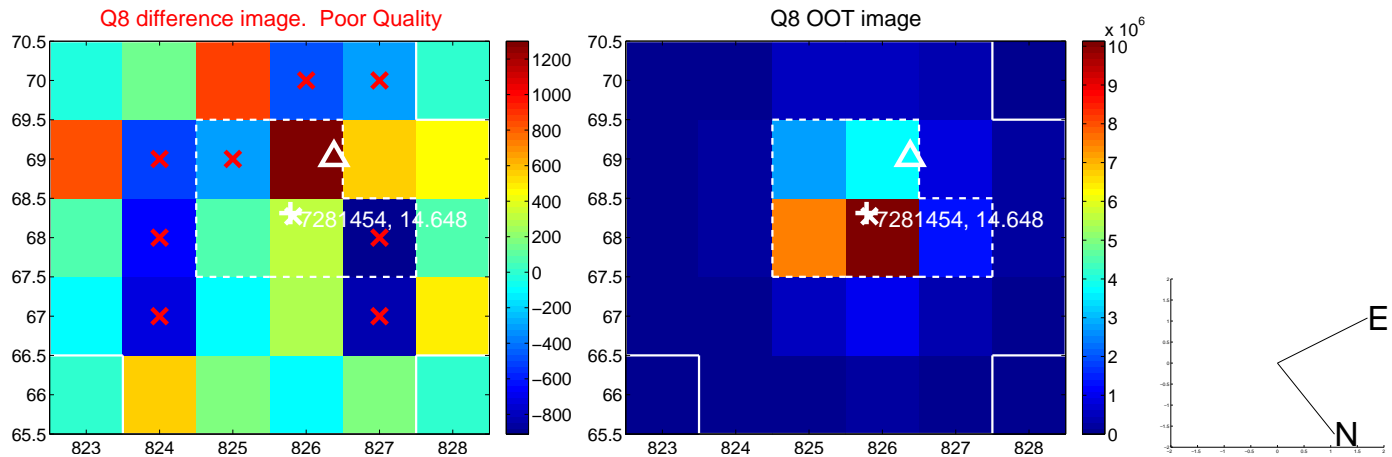
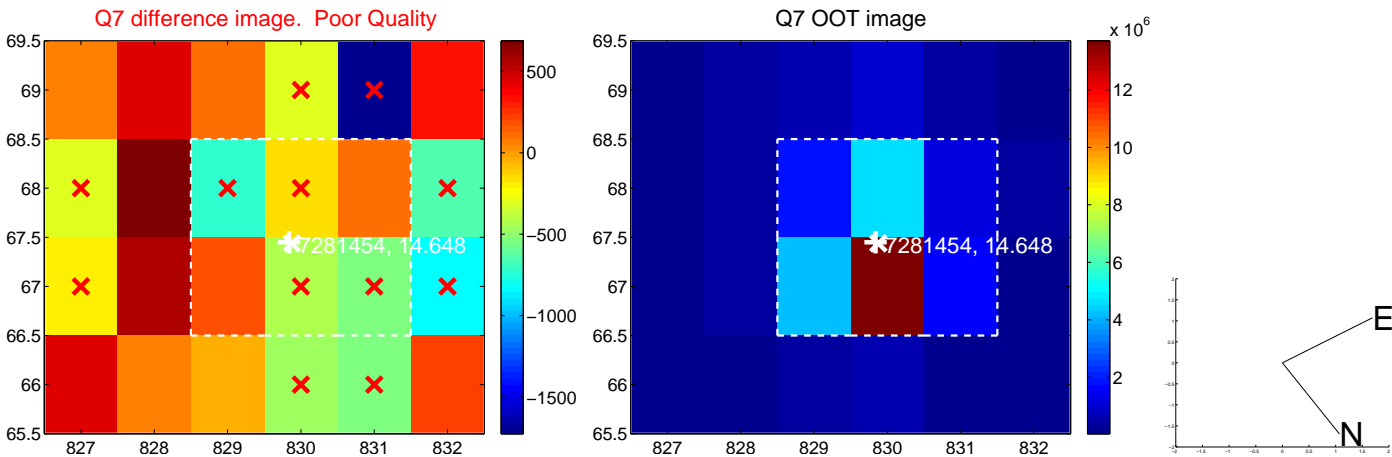
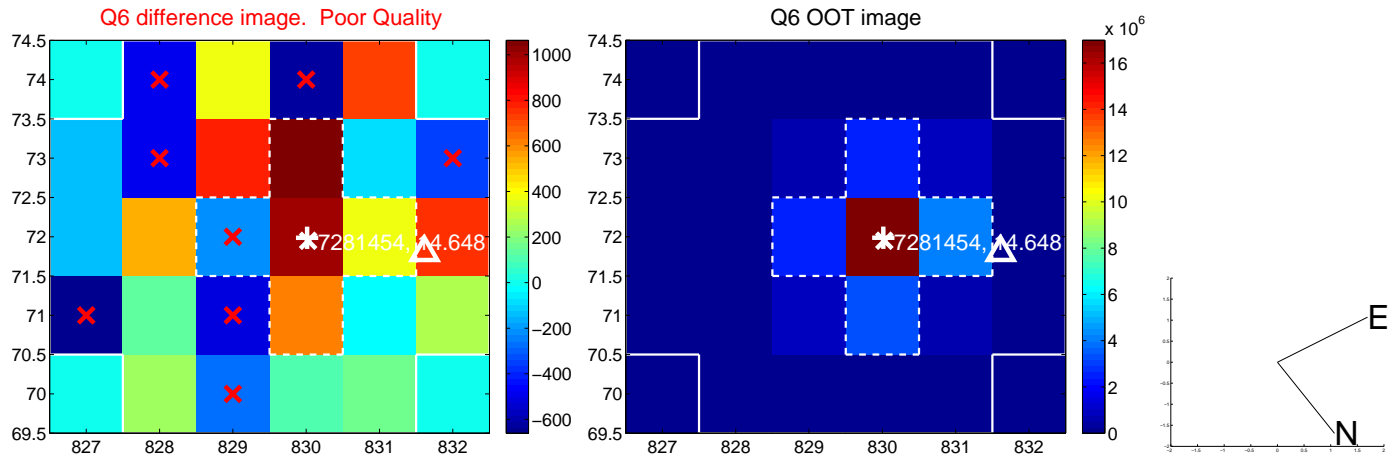
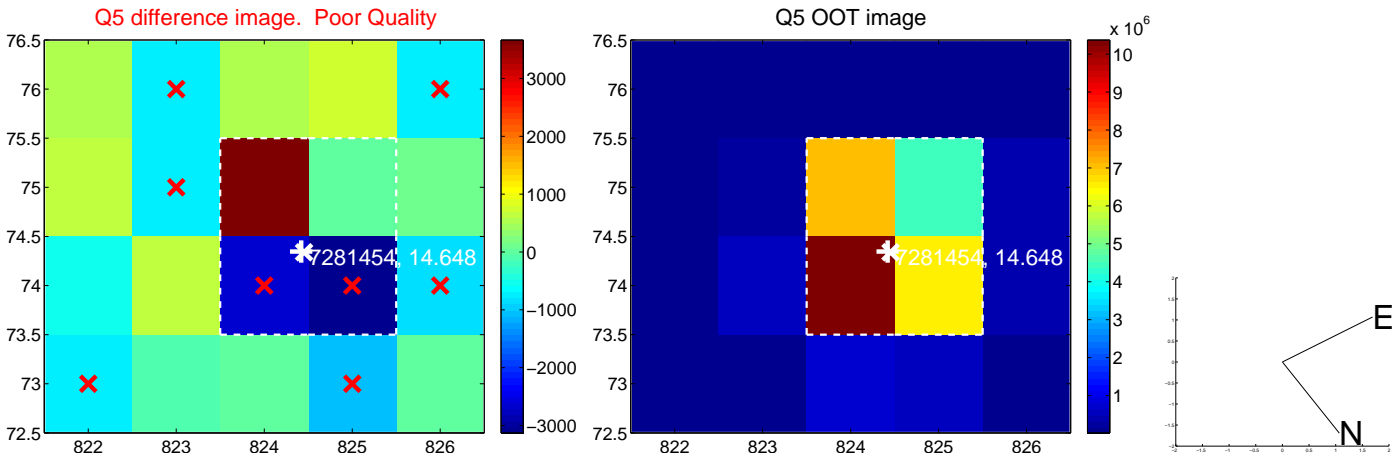


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

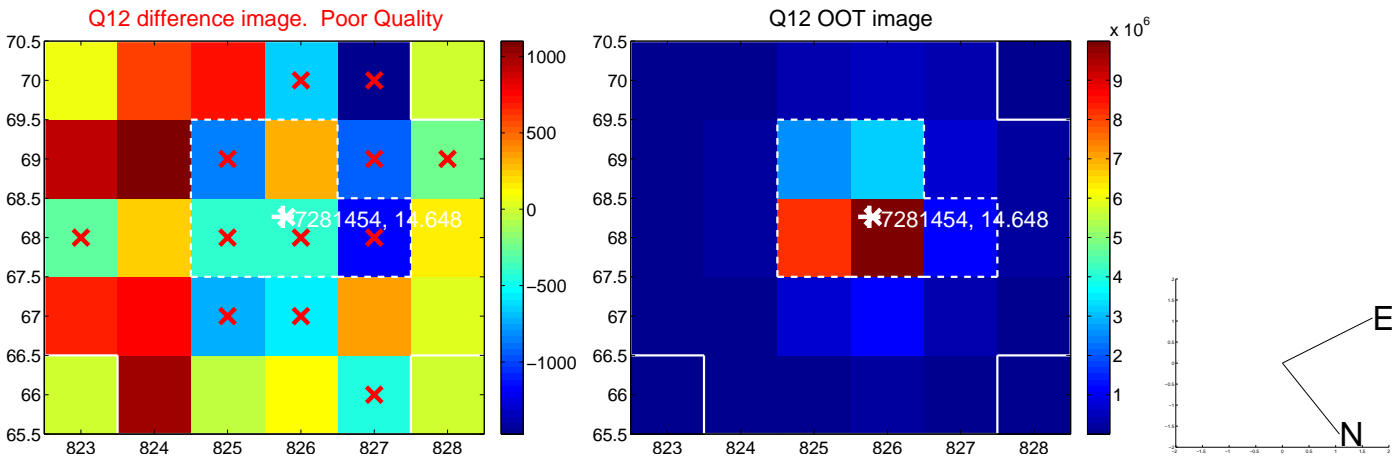
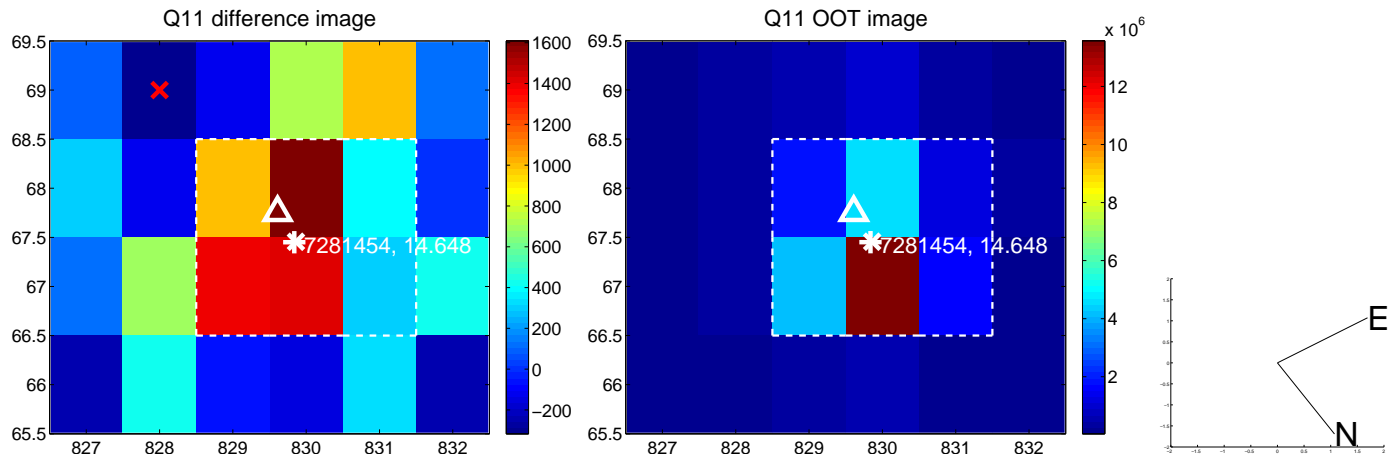
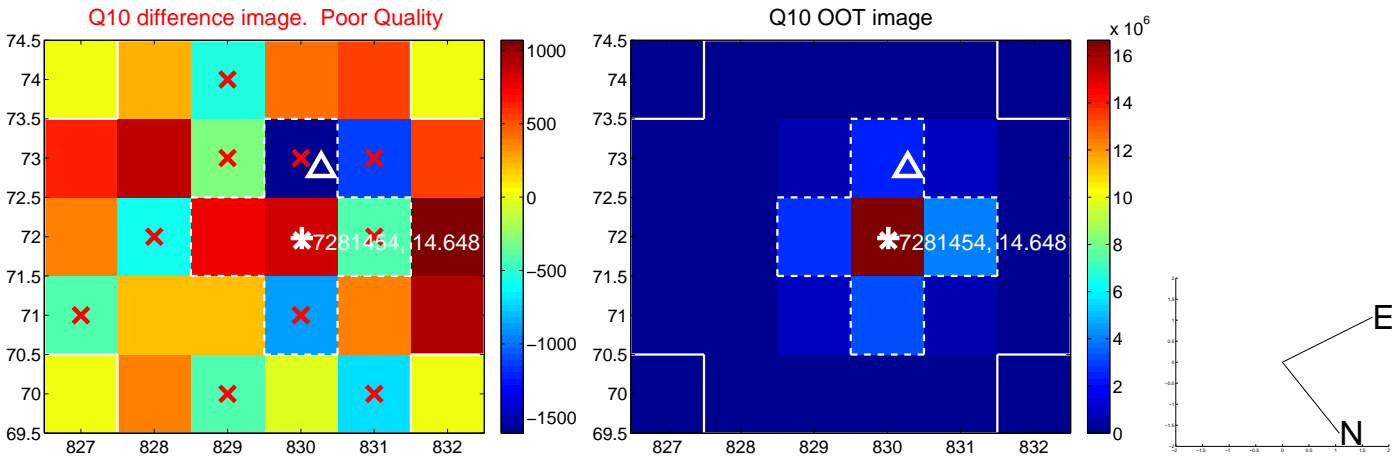
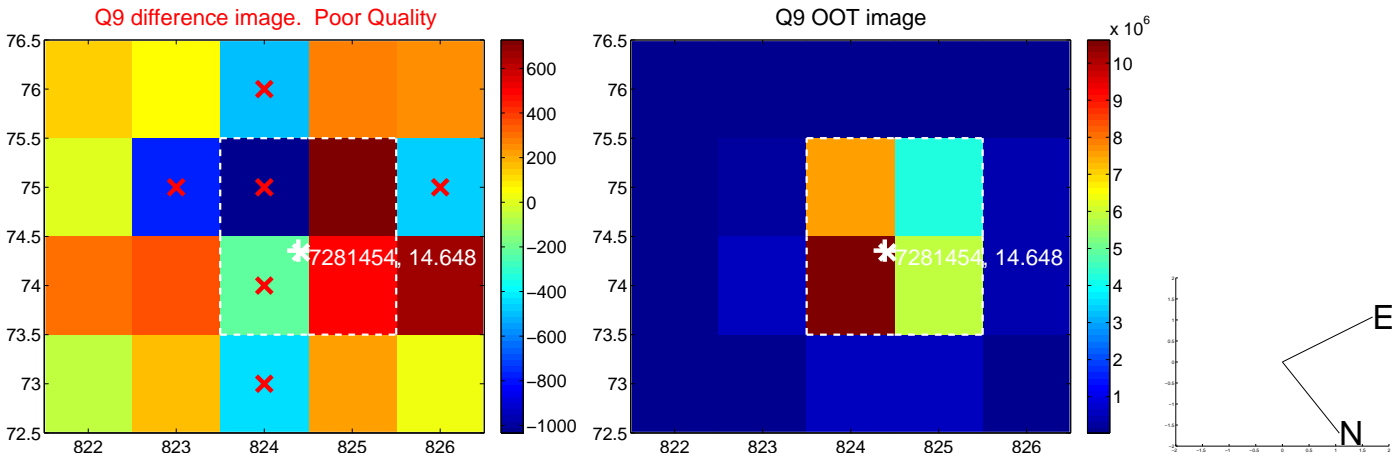
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



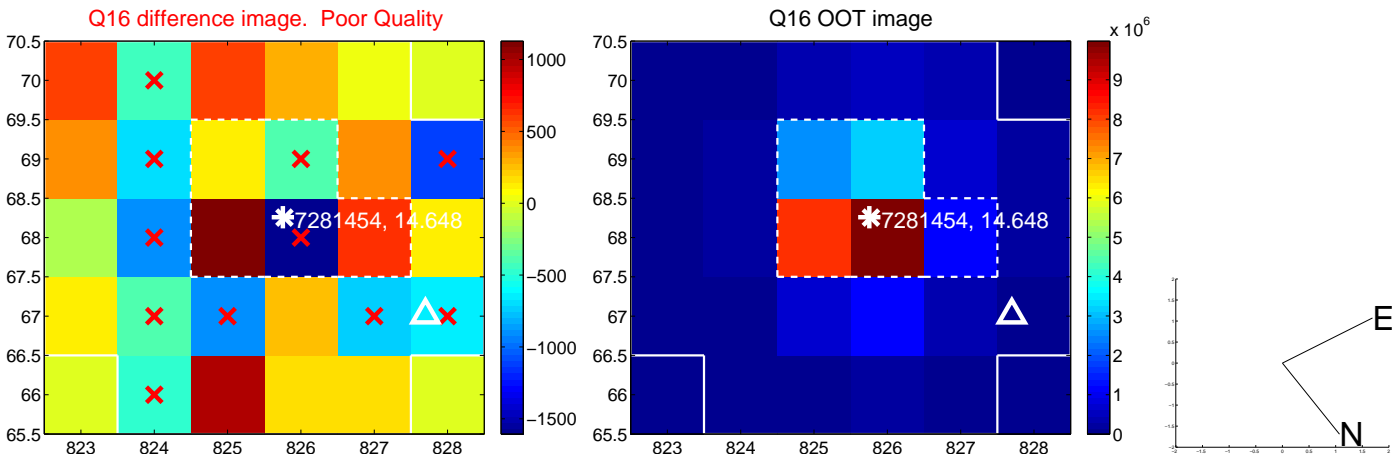
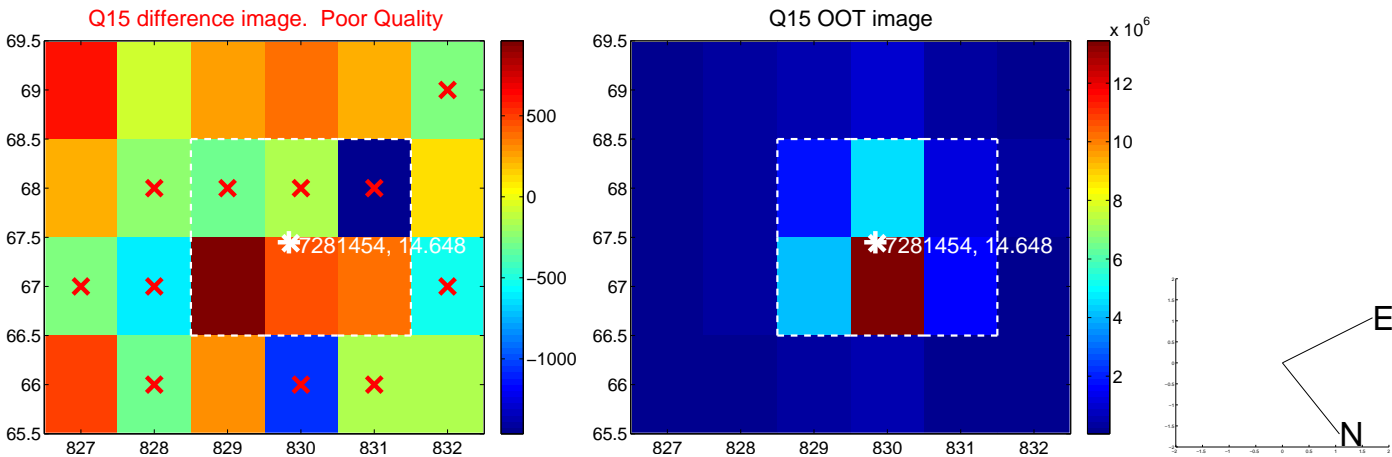
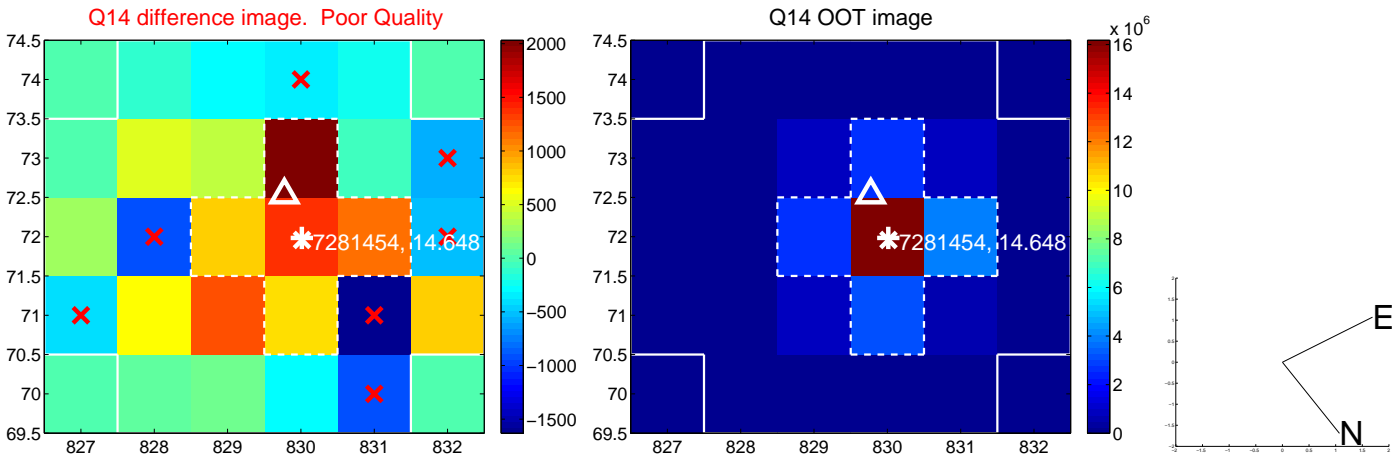
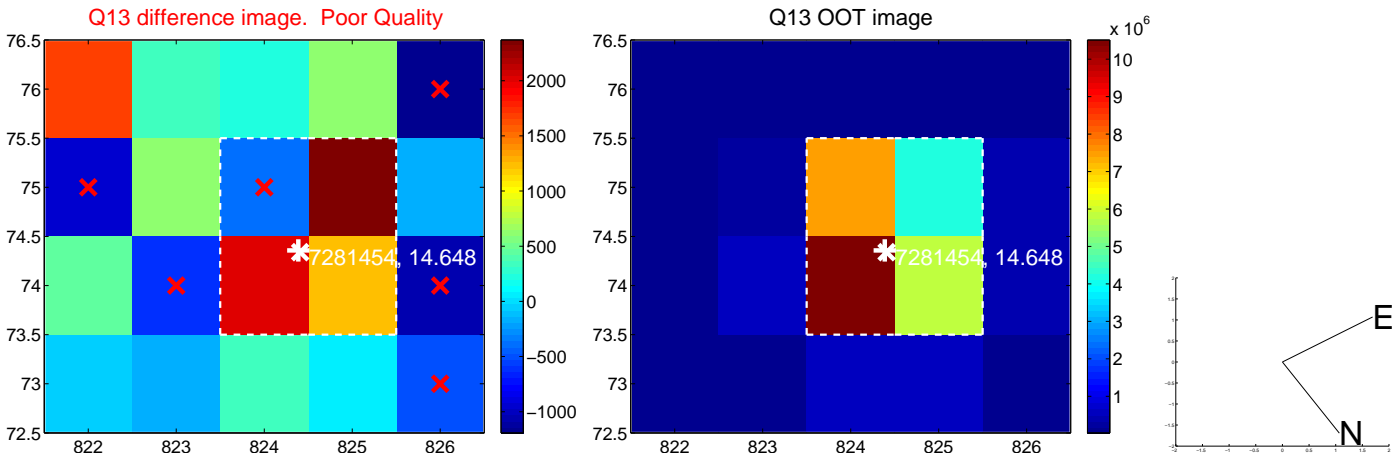
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



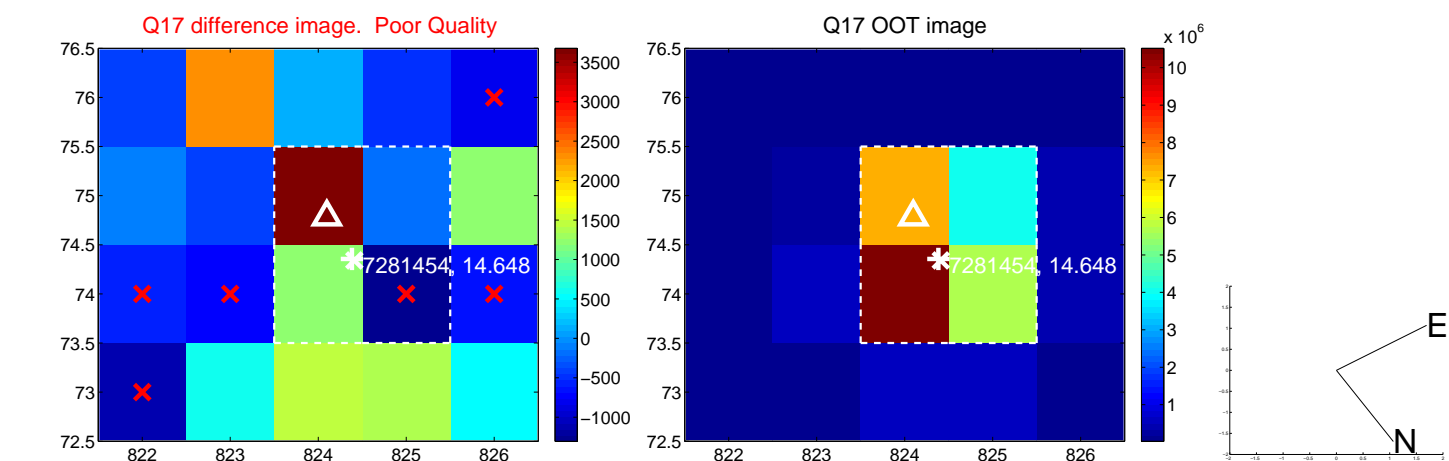
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



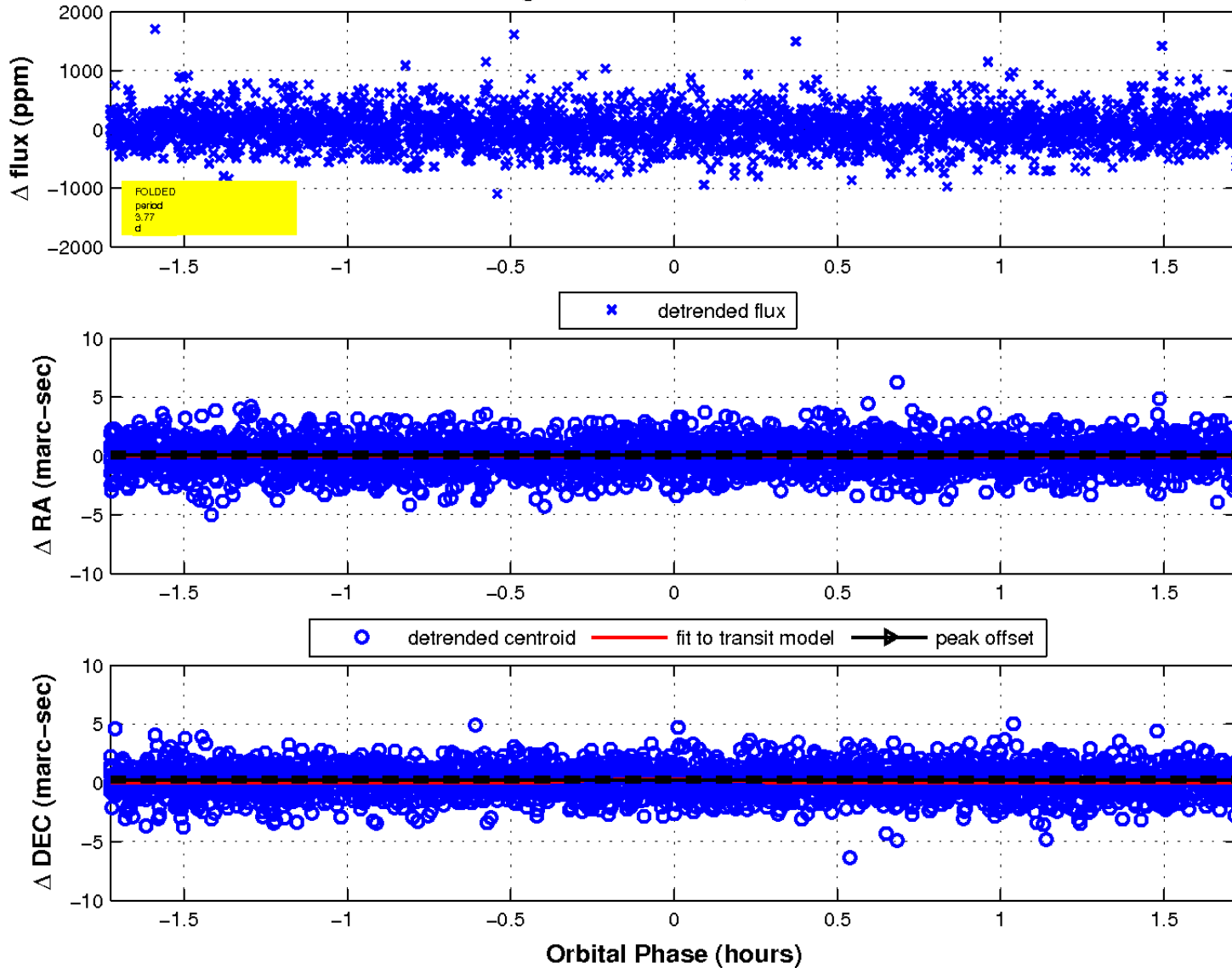
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 8 of 8



UKIRT Image

Declination

