

KIC 009790034

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})
009790034-01	OBS	No	5.141290	134.109675	25.2	14.798	7.6	7.5	1.90	6796	1.20	1851.78
009790034-02	OBS	No	321.122579	294.553475	151.7	8.462	9.6	6.0	1.90	6796	2.72	7.47
009790034-03	OBS	No	5.141487	131.903003	20.6	15.479	8.1	6.8	1.90	6796	0.96	1851.69
009790034-05	OBS	No	352.049805	140.832103	152.6	12.000	11.0	-1.0	1.90	6796	2.37	6.61
009790034-06	OBS	No	44.512947	154.941981	54.6	13.890	7.3	3.9	1.90	6796	1.59	104.16

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009790034-01	OBS	FP	0.00	1	0	0	0	LPP_DV
009790034-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—INCONSISTENT_TRANS
009790034-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—SAME_NTL_PERIOD
009790034-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
009790034-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_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.

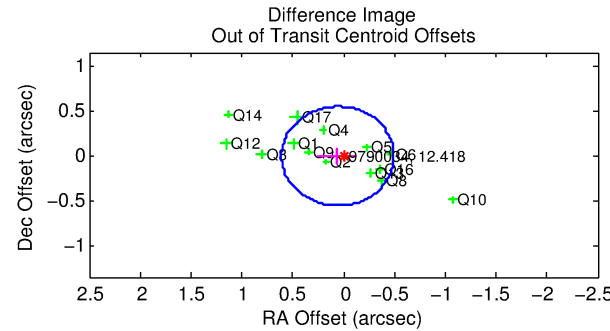
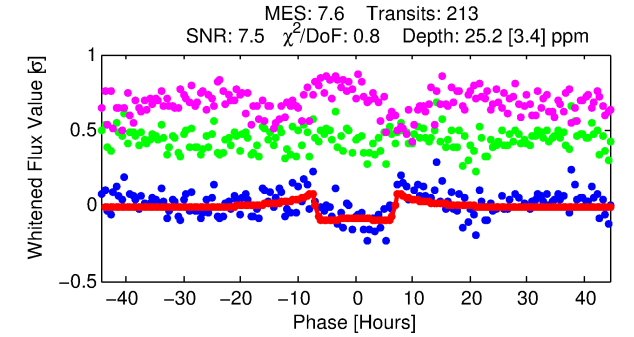
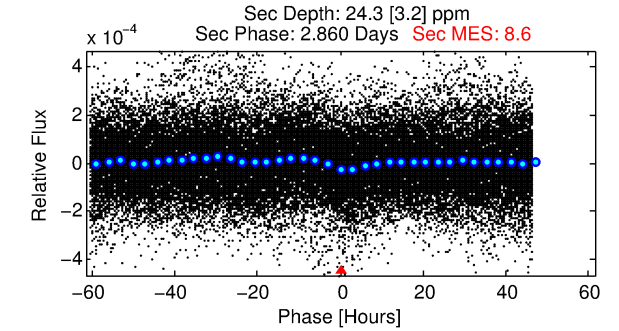
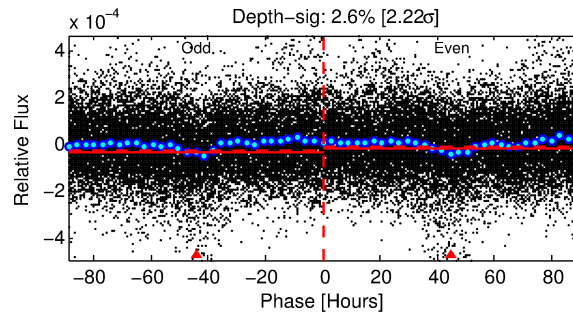
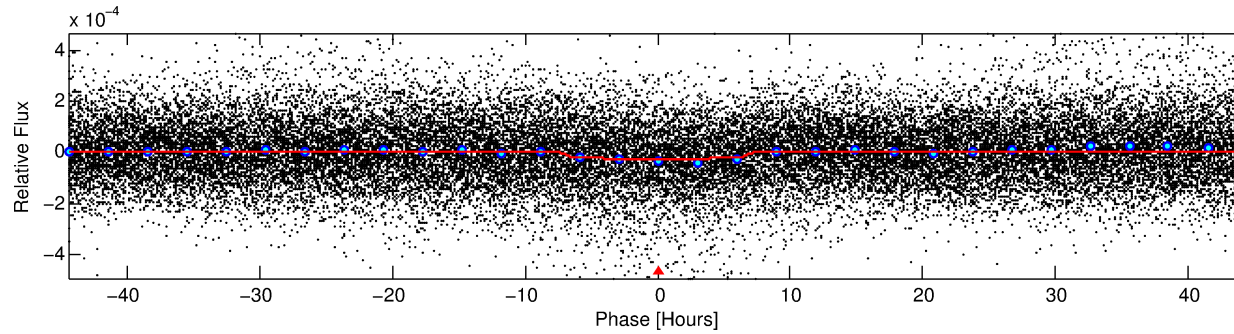
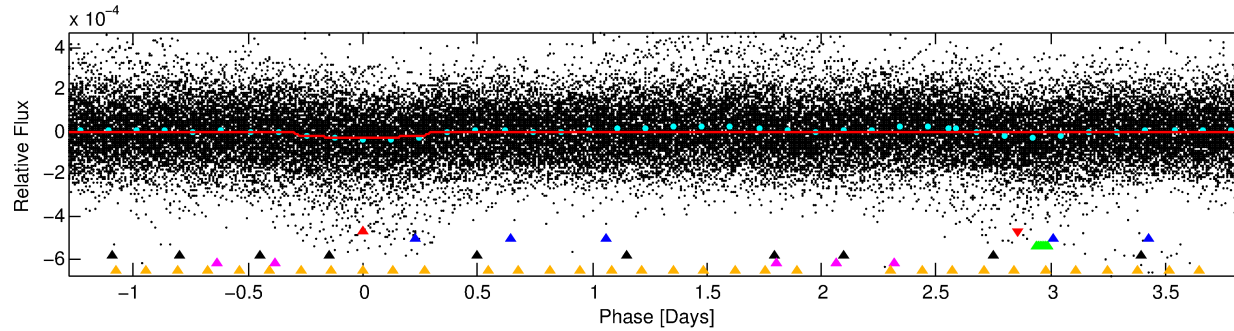
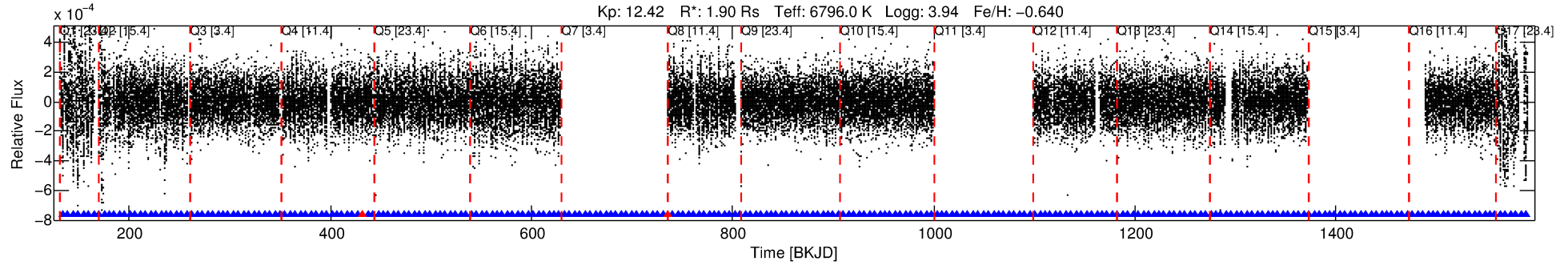
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009790034-01

No Significant Match Found

DV One-Page Summary

KIC: 9790034 Candidate: 1 of 6 Period: 5.141 d



DV Fit Results:

Period = 5.14129 [0.00010] d
Epoch = 134.1097 [0.0143] BKJD
Rp/R* = 0.0058 [0.0005]
a/R* = 1.24 [0.15]
b = 0.96 [0.03]
Seff = 1851.78 [926.77]
Teq = 1673 [209] K
Rp = 1.20 [0.41] Re
a = 0.0612 [0.0188] AU
Ag = 34.86 [18.56] [1.82 σ]
Teffp = 6284 [408] K [10.05 σ]

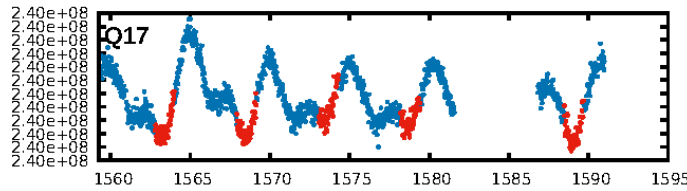
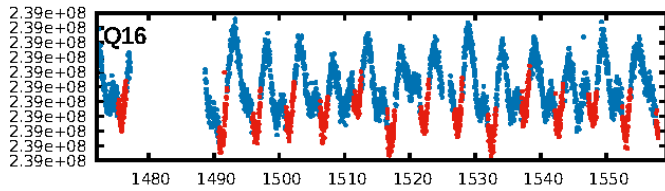
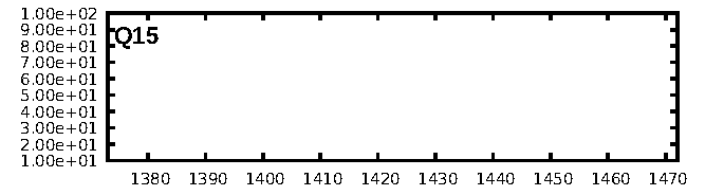
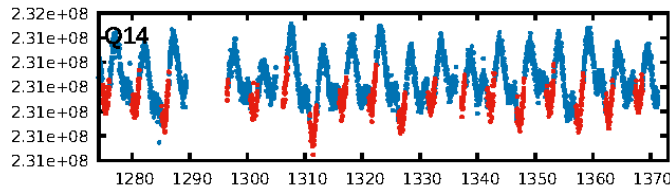
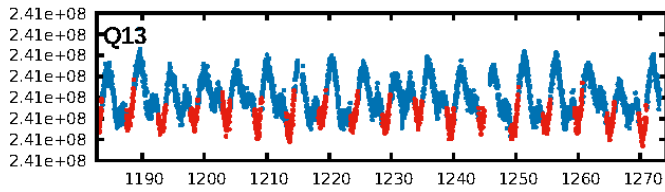
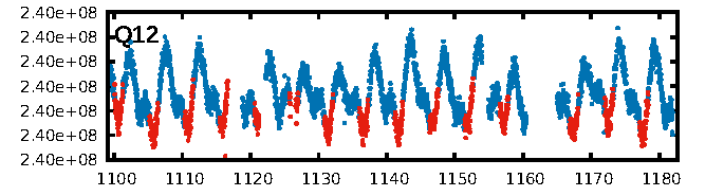
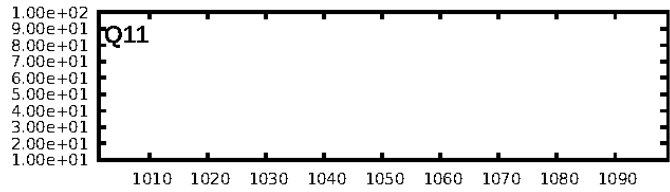
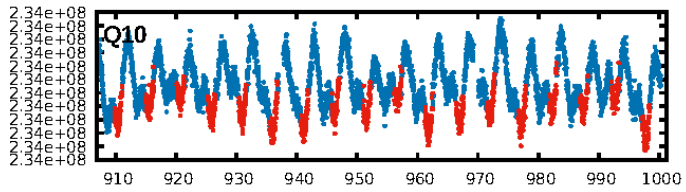
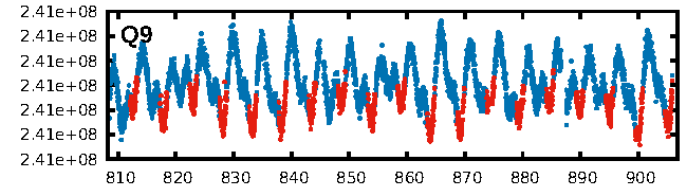
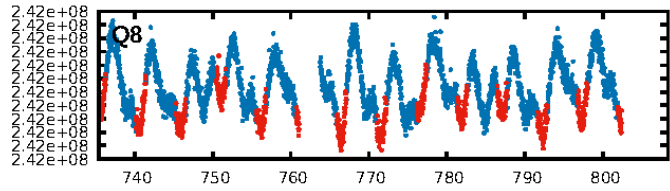
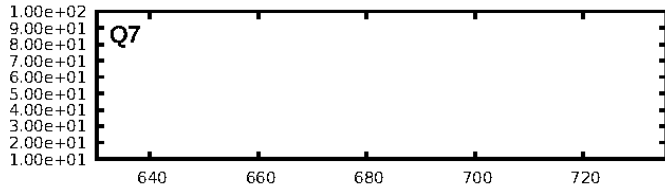
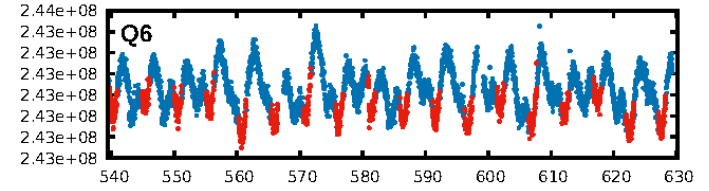
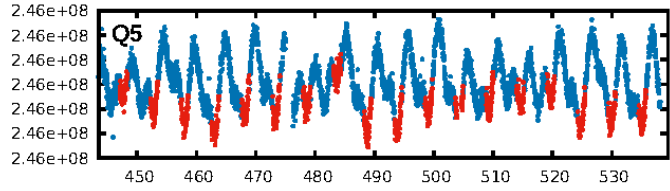
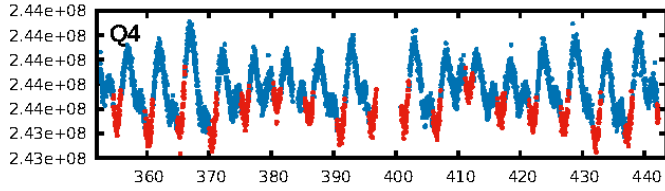
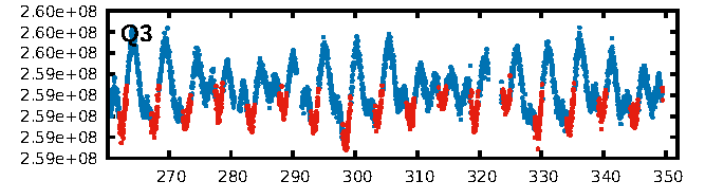
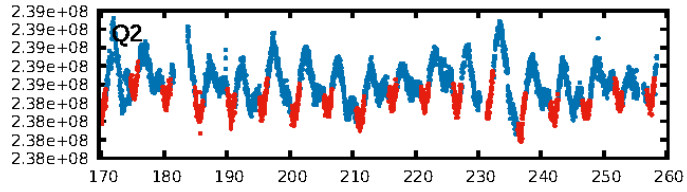
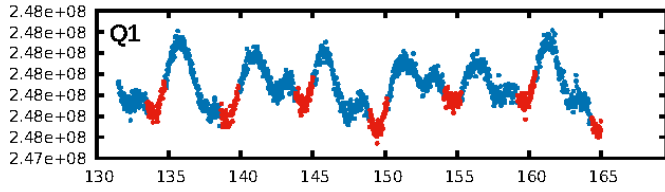
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.74e-10
RollingBand-fgt: 0.99 [199/201]
GhostDiagnostic-chr: 0.4237
Centroid-sig: 0.0%
Centroid-so: 4.358 arcsec [4.34 σ]
OotOffset-rm: 0.057 arcsec [0.31 σ]
KicOffset-rm: 0.147 arcsec [1.15 σ]
OotOffset-st: 4/1/4/5 [14]
KicOffset-st: 4/1/4/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

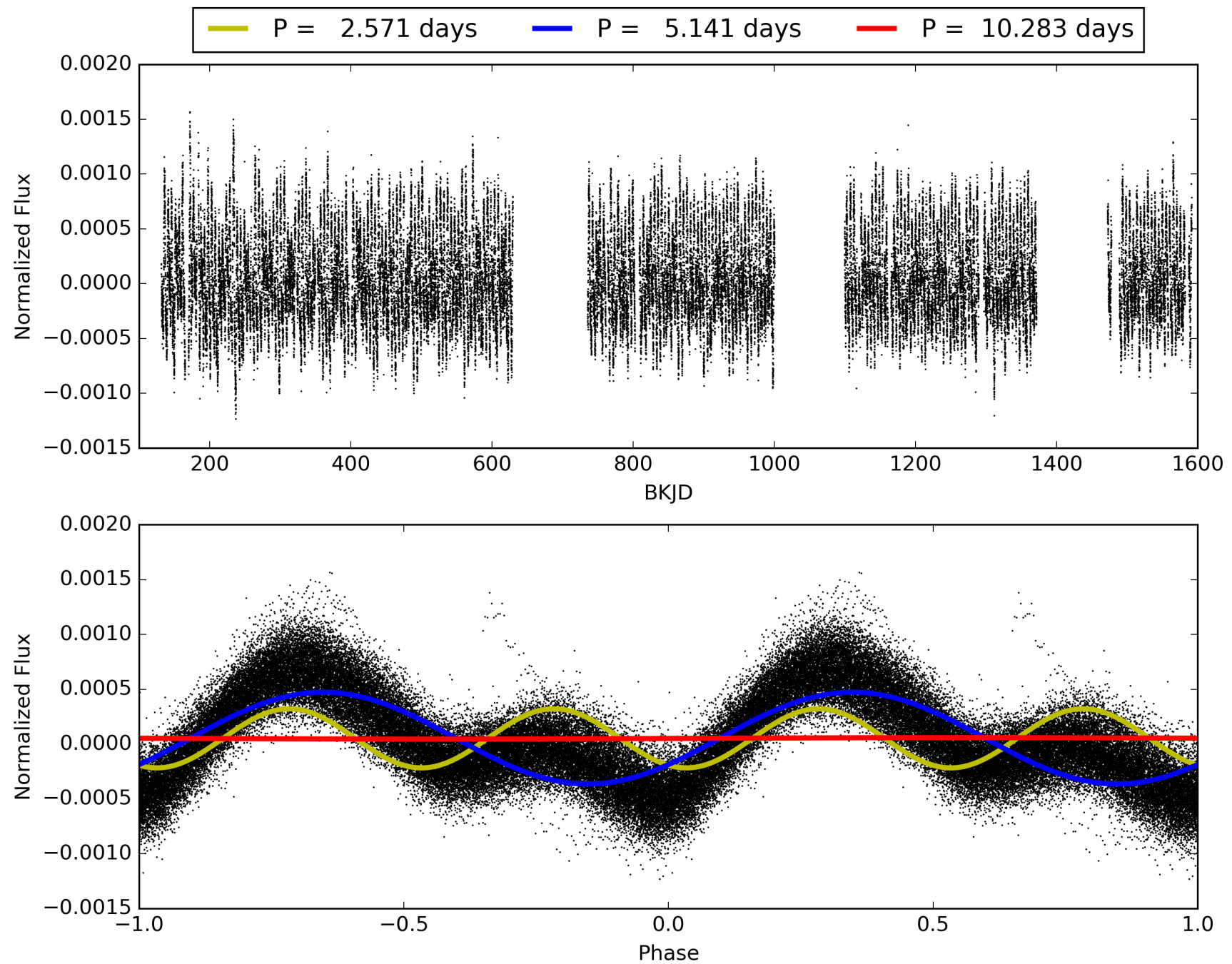
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 009790034-01, PDC Light Curves

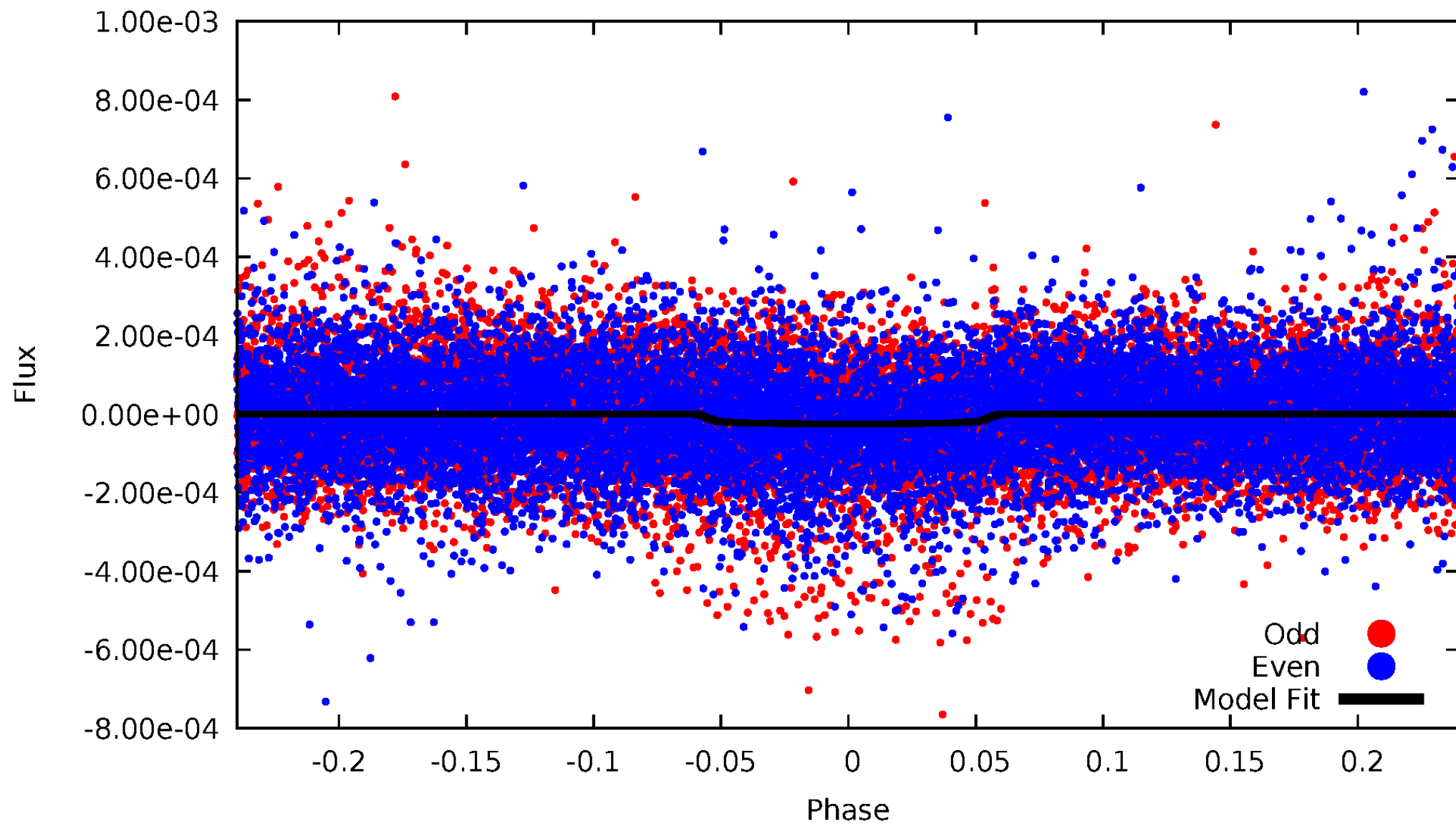


TCE 009790034-01



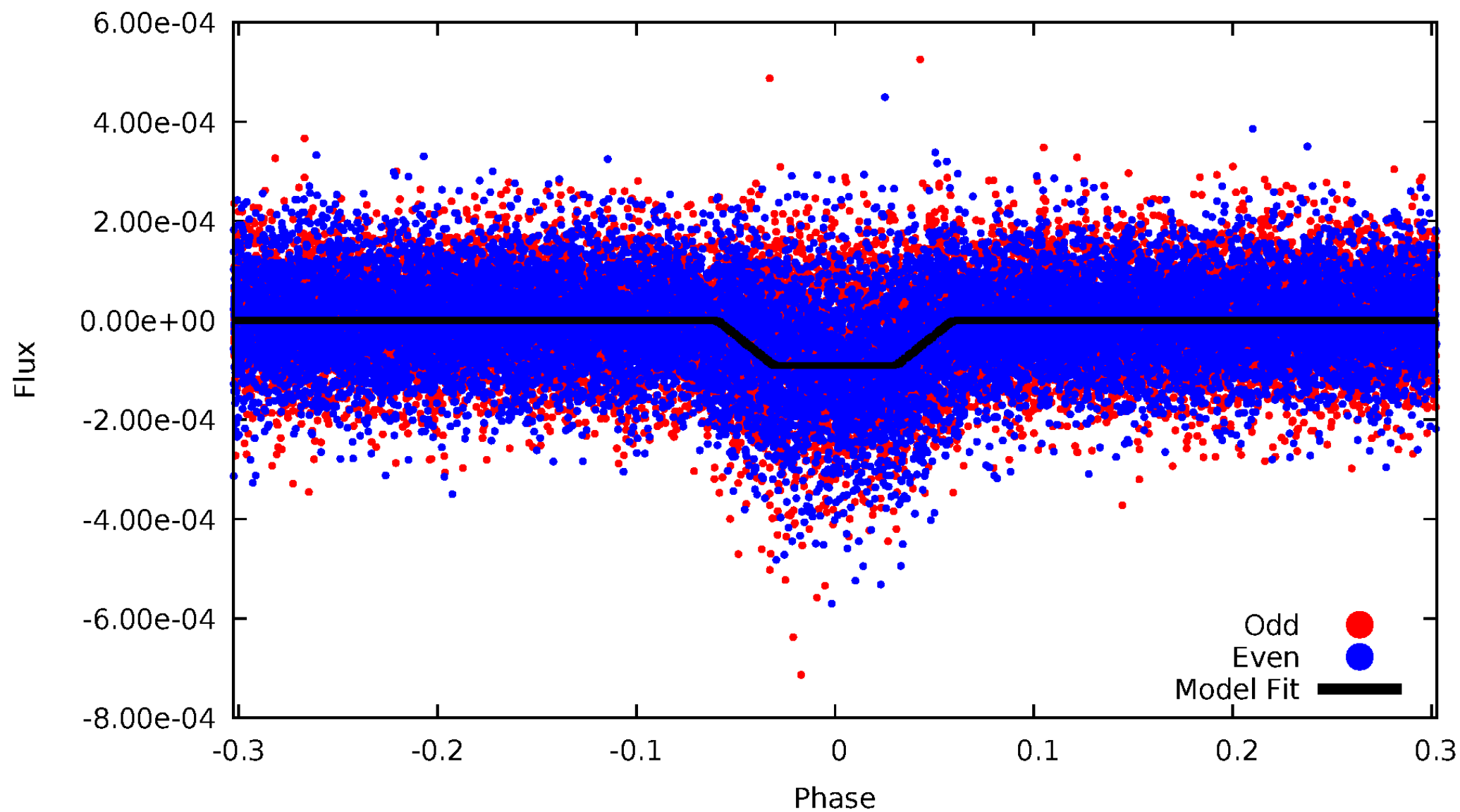
DV Odd/Even

TCE 009790034-01

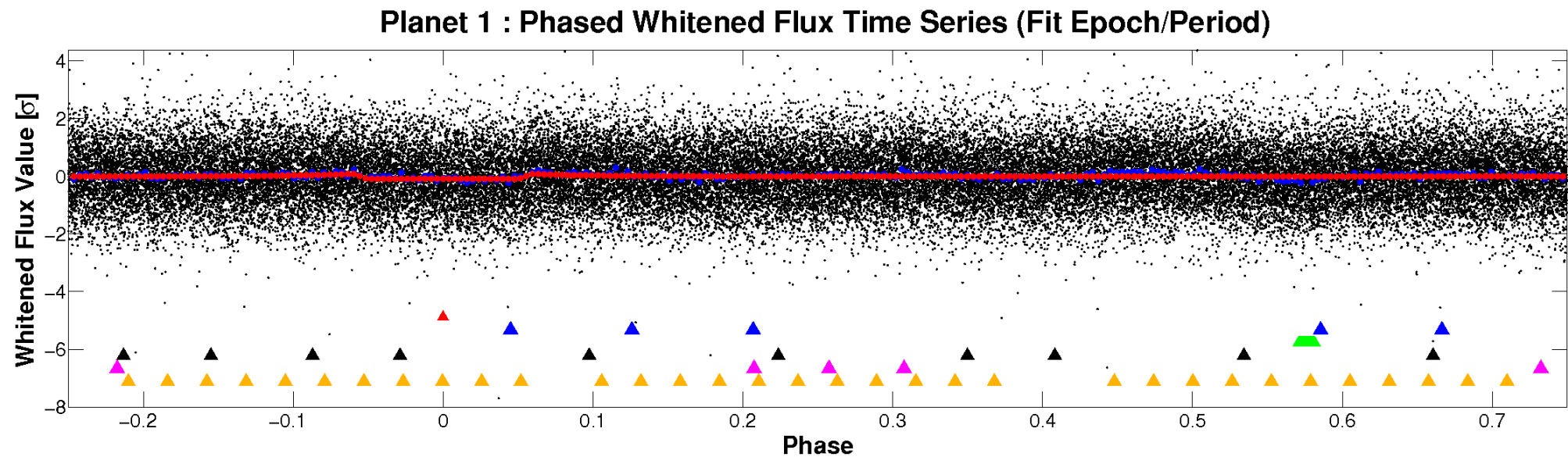
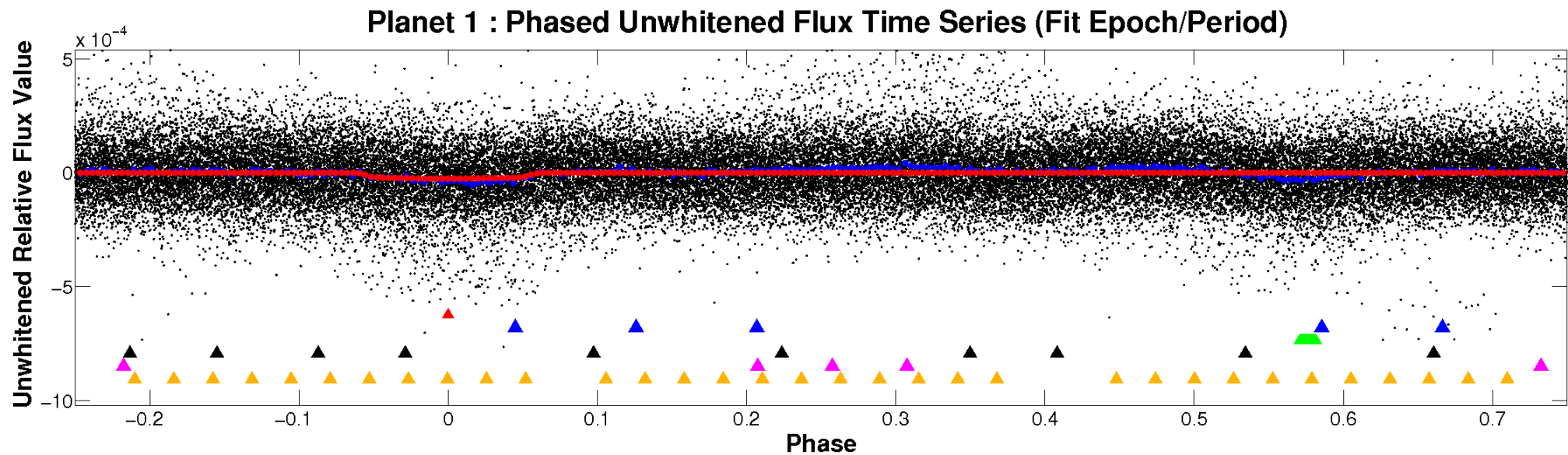


ALT Odd/Even

TCE 009790034-01

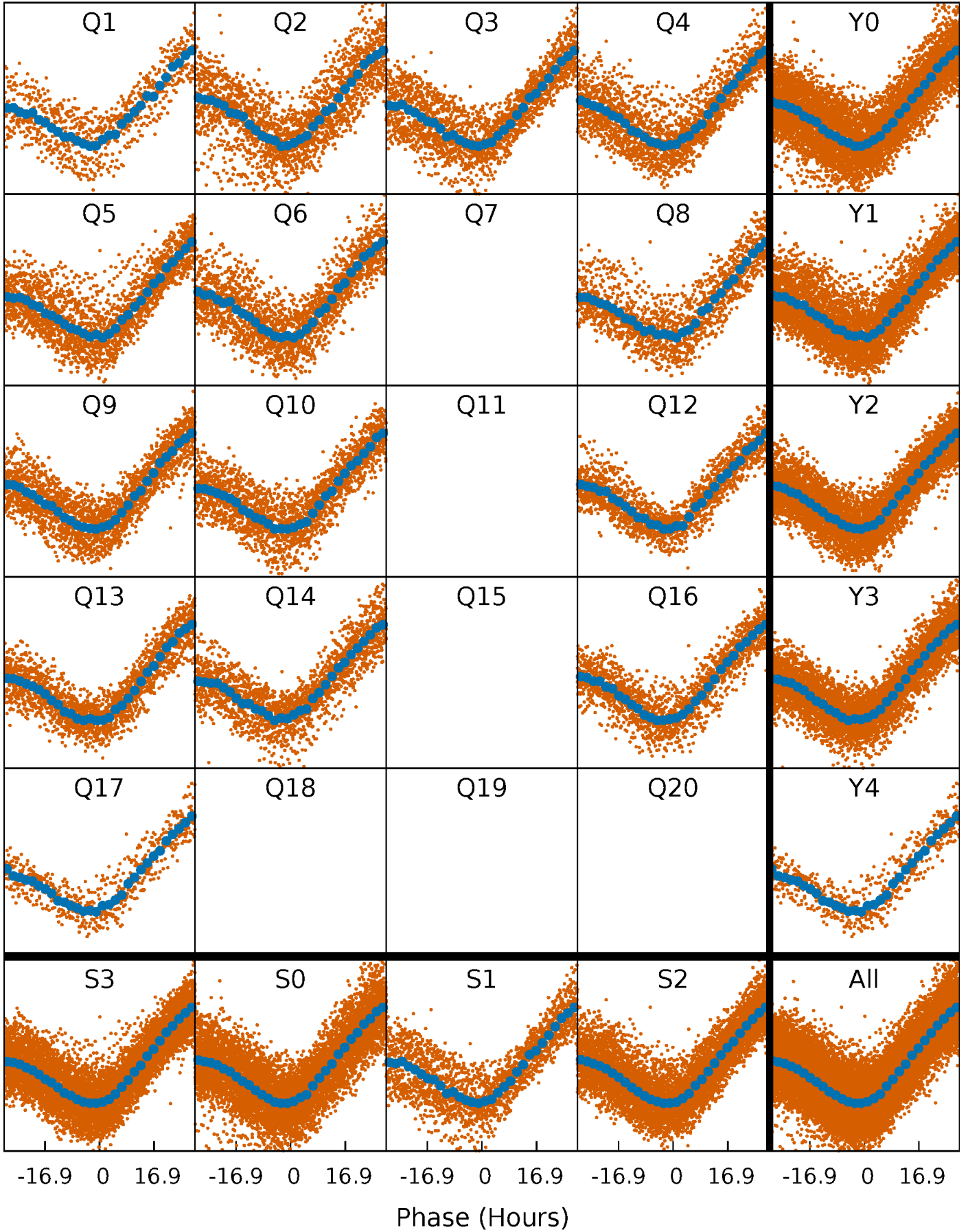


Non-Whitened Vs. Whitened Light Curve



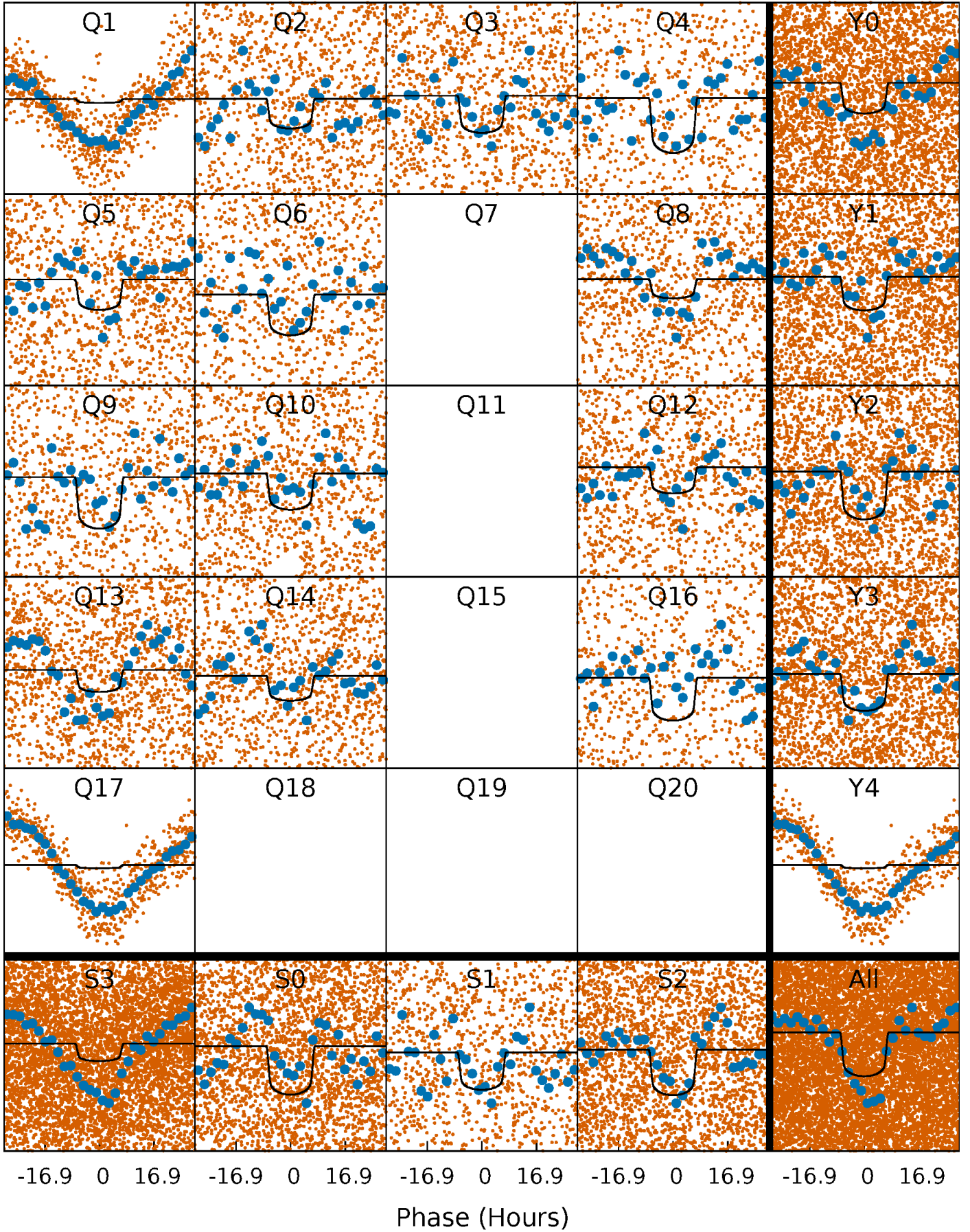
PDC Quarter-Phased Transit Curves

TCE 009790034-01 P= 5.141290 Days $T_0=134.109675$ (BKJD)



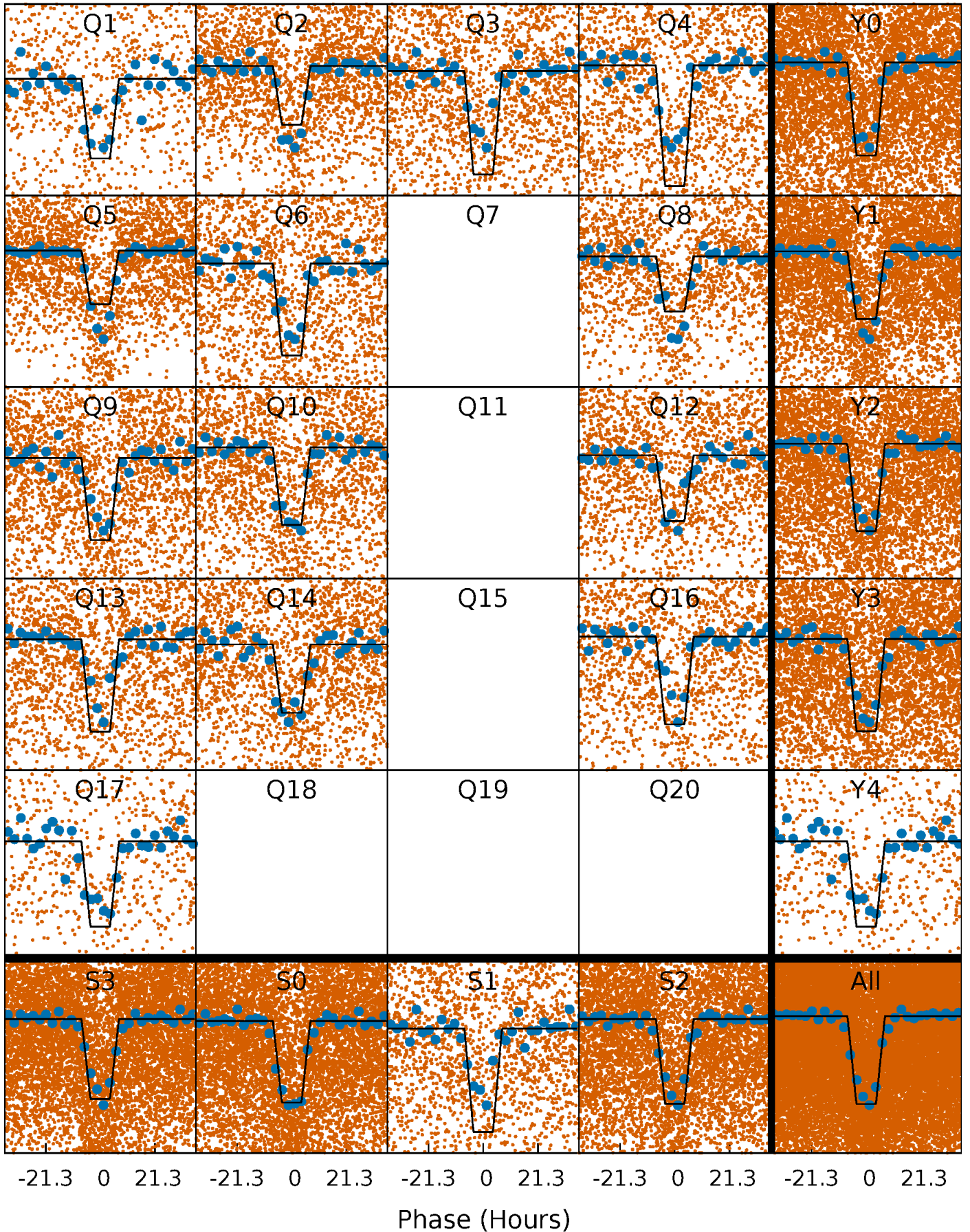
DV Quarter-Phased Transit Curves

TCE 009790034-01 P= 5.141290 Days $T_0=134.109675$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

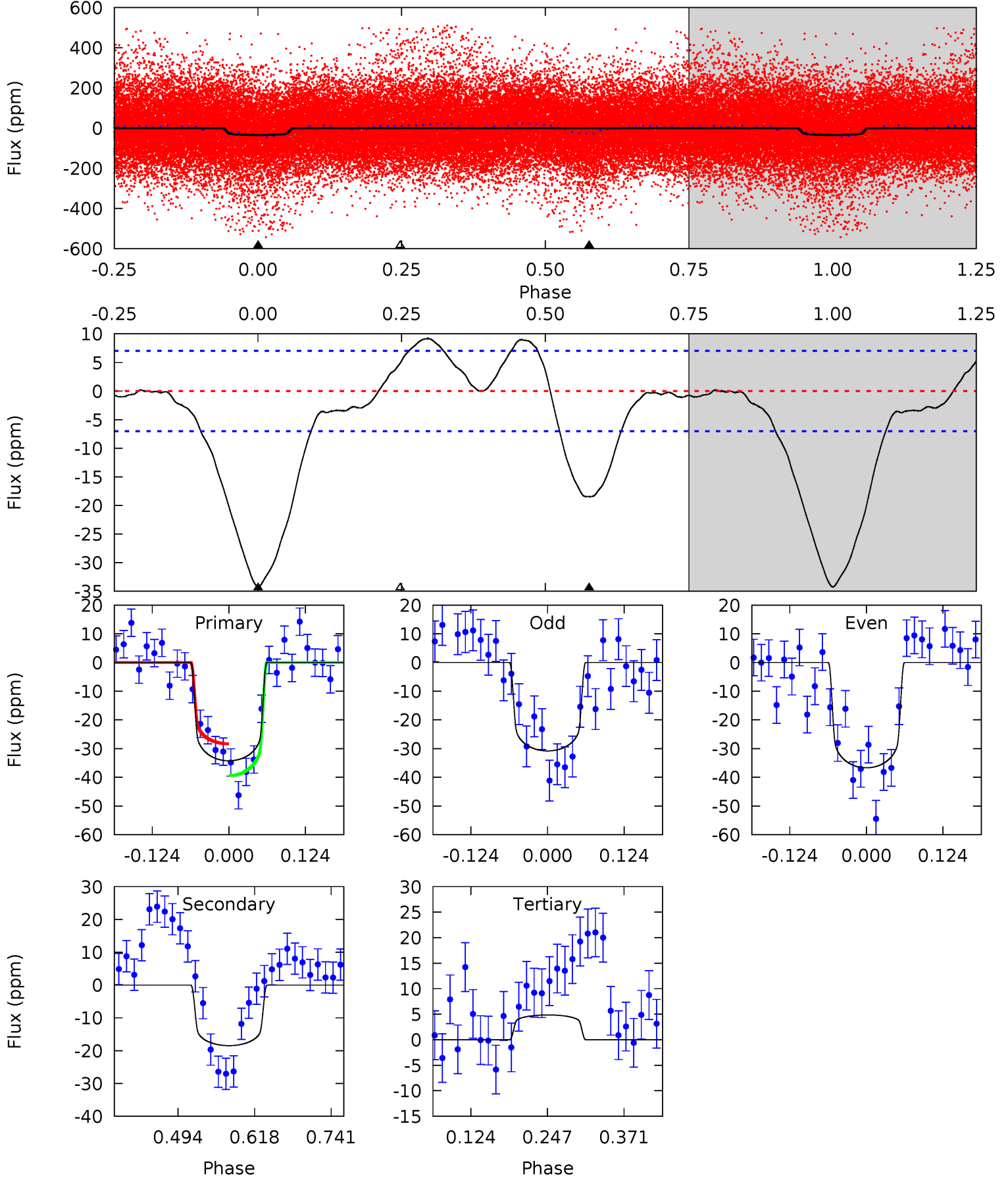
TCE 009790034-01 P= 5.141320 Days $T_0=134.161199$ (BKJD)



DV Model-Shift Uniqueness Test

009790034-01, P = 5.141290 Days, E = 128.968385 Days

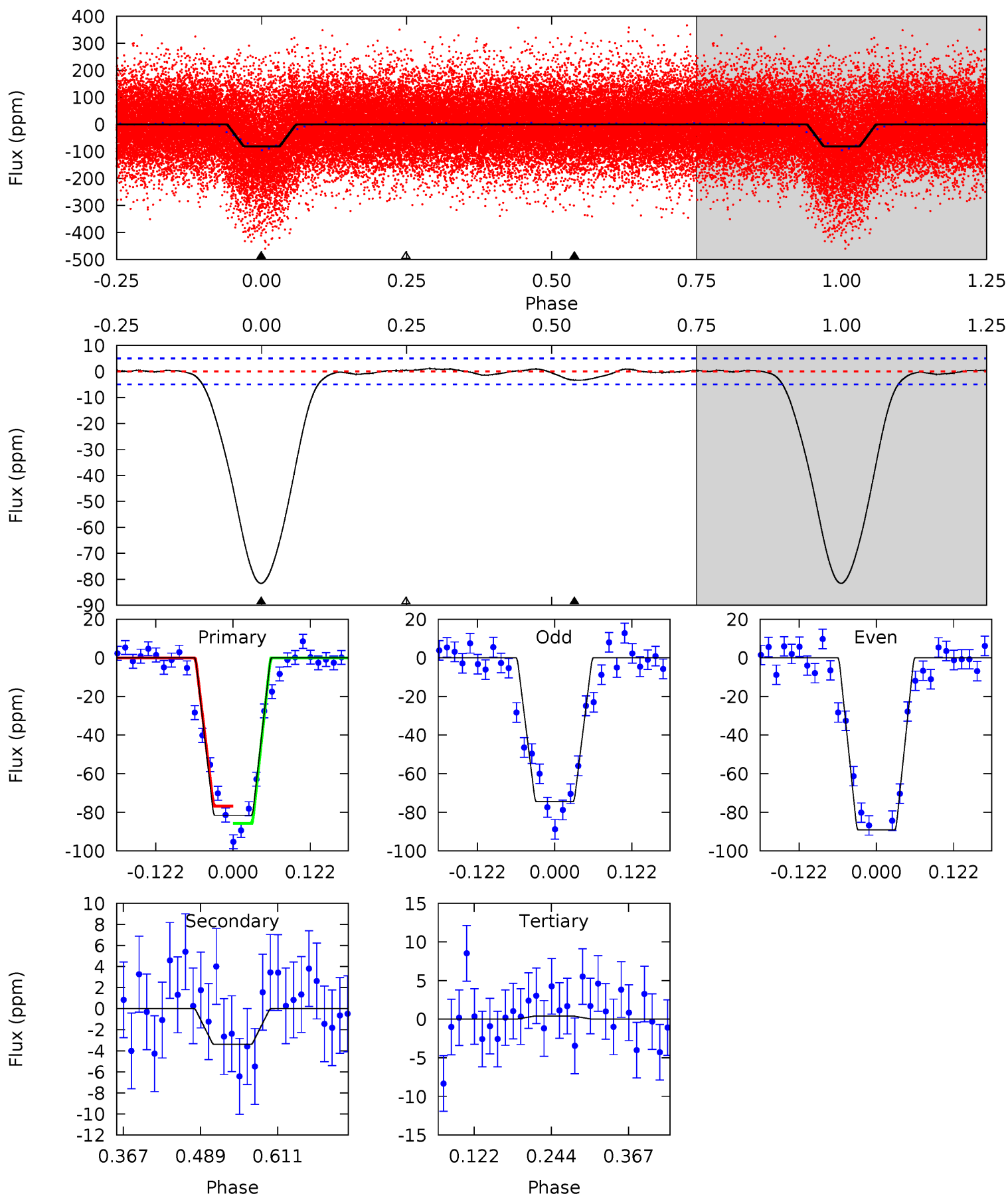
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.0	11.9	-3.13	0	4.52	1.54	2.43	25.2	22.0	15.0	11.9	1.90	1.14	0.21	3.63



Alt Model-Shift Uniqueness Test

009790034-01, P = 5.141320 Days, E = 129.019879 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
74.0	3.07	-0.37	0	4.52	1.55	0.55	74.4	74.0	3.44	3.07	6.62	1.02	0.01	4.05



Stellar Parameters For KIC 009790034

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6796^{+183}_{-224}	$3.941^{+0.280}_{-0.100}$	$-0.640^{+0.300}_{-0.300}$	$1.904^{+0.386}_{-0.628}$	$1.155^{+0.193}_{-0.158}$	$0.236^{+0.428}_{-0.086}$
	+3%/-3%	+7%/-3%	+47%/-47%	+20%/-33%	+17%/-14%	+182%/-36%
Source	PHO1	FLK73	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 009790034-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-18 ± 2	$1.17^{+0.19}_{-0.21}$	2293^{+155}_{-176}	5803^{+321}_{-319}	28^{+12}_{-7}
Alt.	-3 ± 1	$1.92^{+0.30}_{-0.32}$	2292^{+147}_{-199}	3380^{+195}_{-245}	$1.945^{+1.056}_{-0.722}$

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

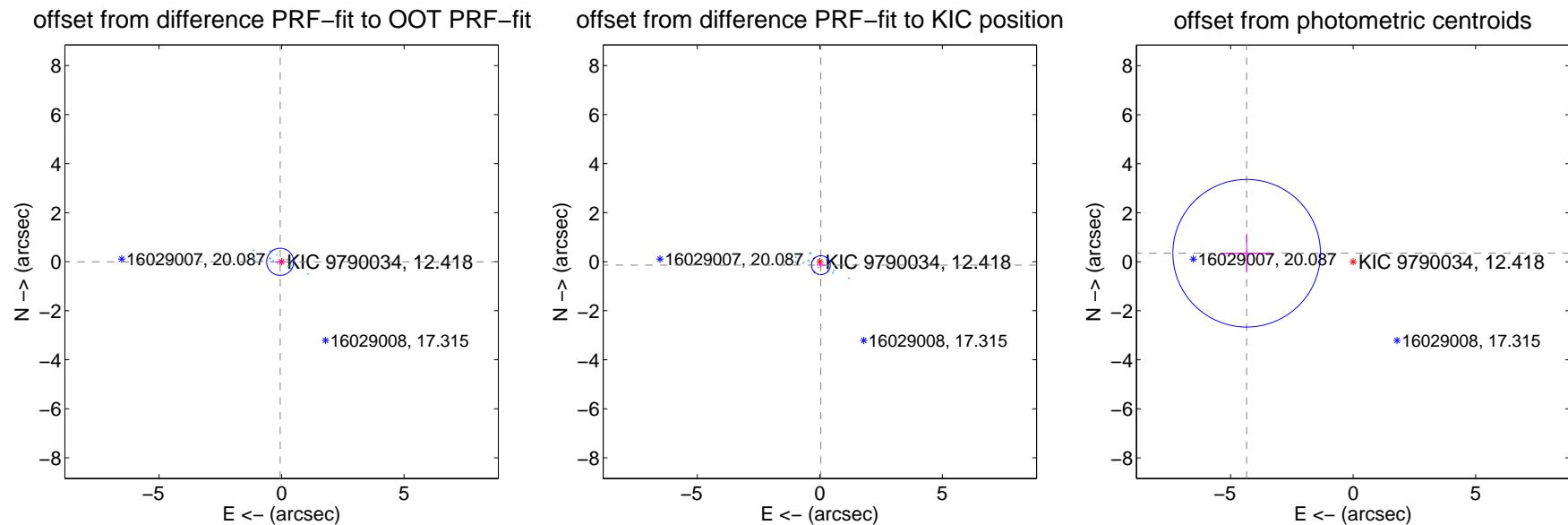
DV Centroid Data

Supplemental centroid analysis for 009790034-01. Kepler magnitude: 12.42. Transit SNR 7.48

There are 14 quarters with good PRF difference image offsets

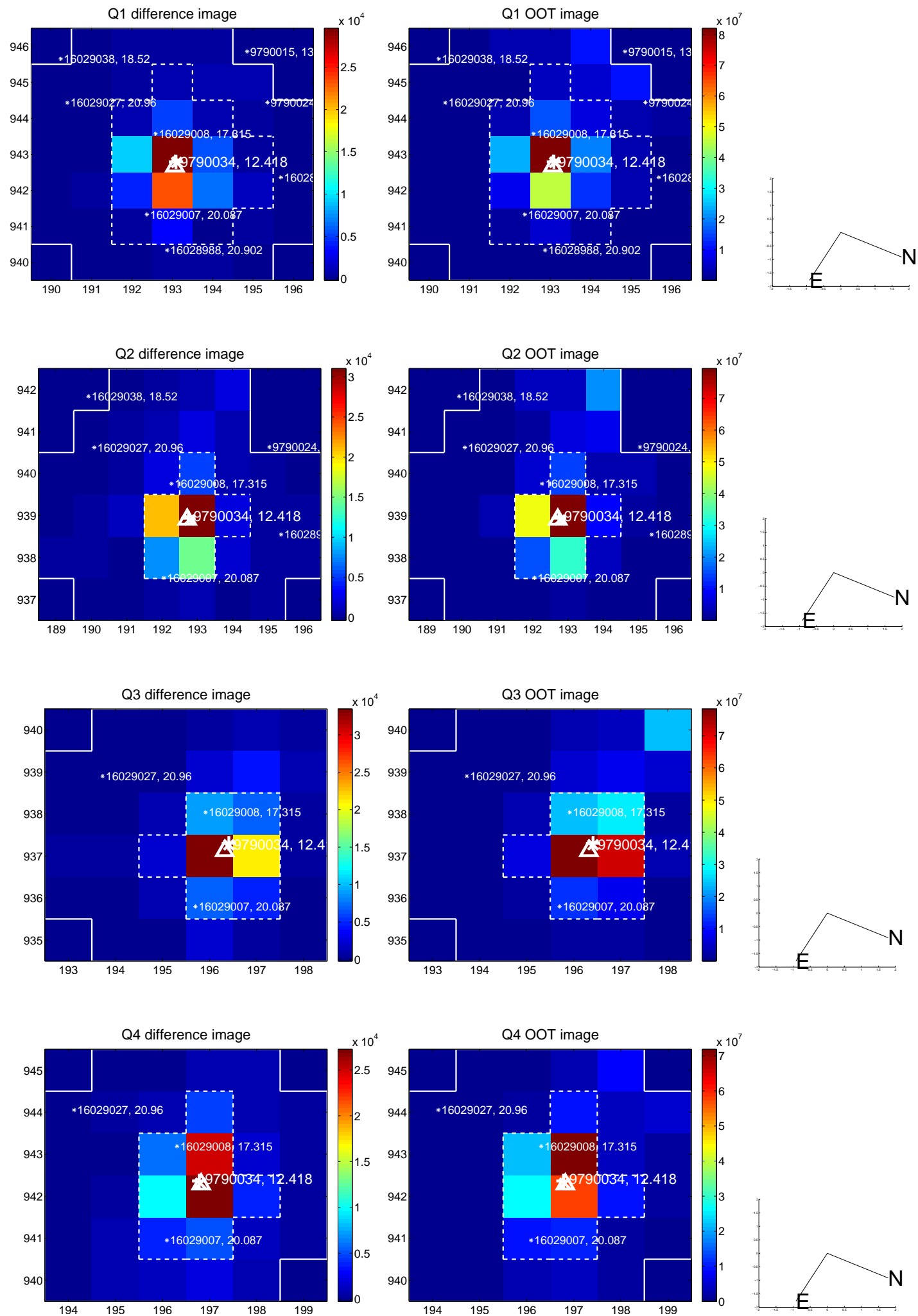
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.057 ± 0.184	0.31	0.057 ± 0.185	-0.005 ± 0.091
PRF-fit source offset from KIC position	0.147 ± 0.128	1.15	-0.042 ± 0.177	-0.141 ± 0.098
photometric centroid source offset	4.36 ± 1.00	4.34	4.34 ± 1.00	0.35 ± 0.80

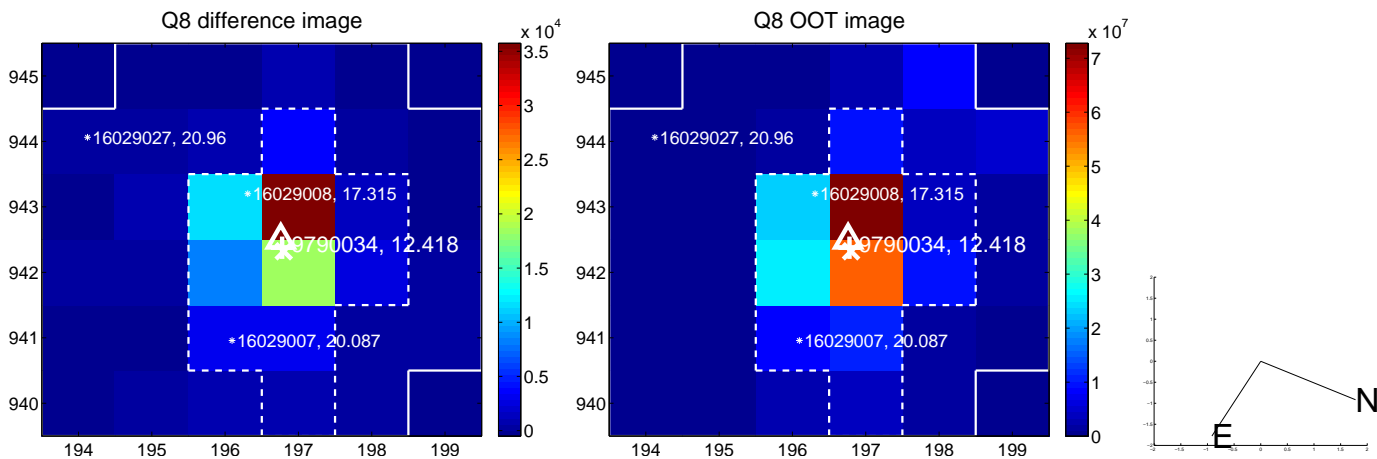
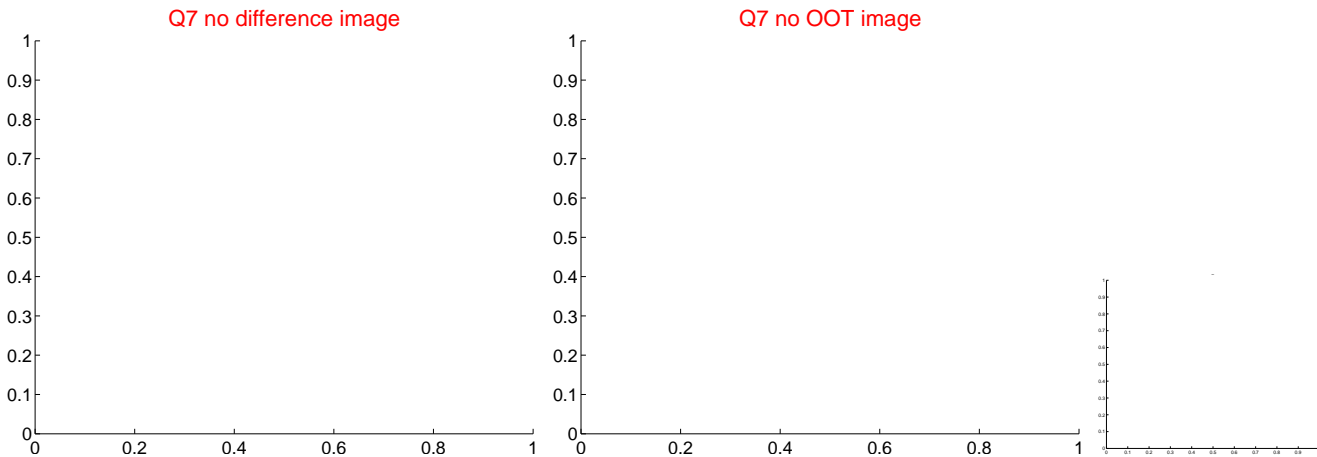
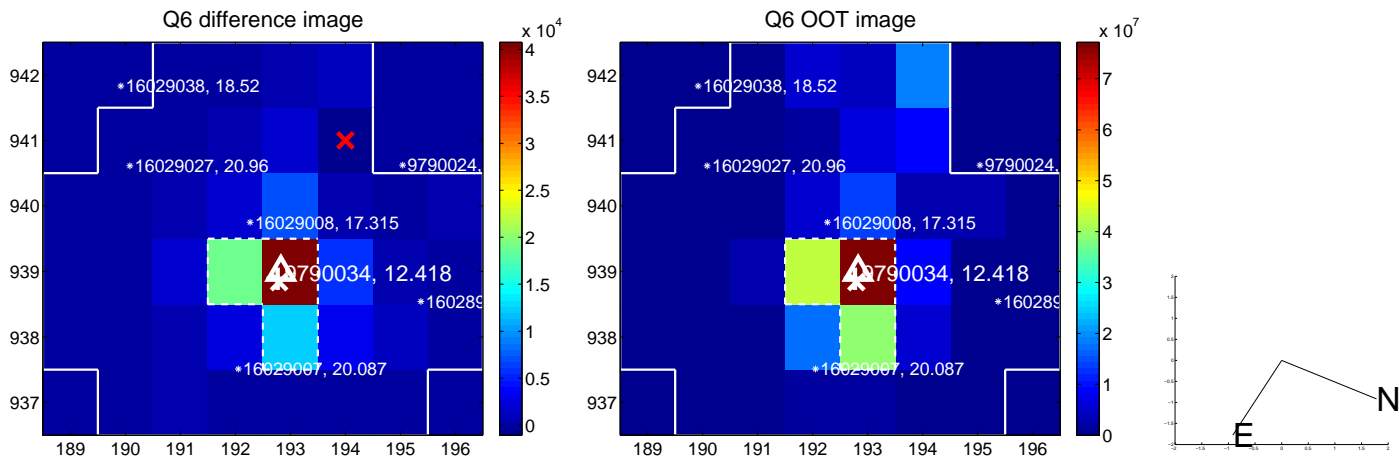
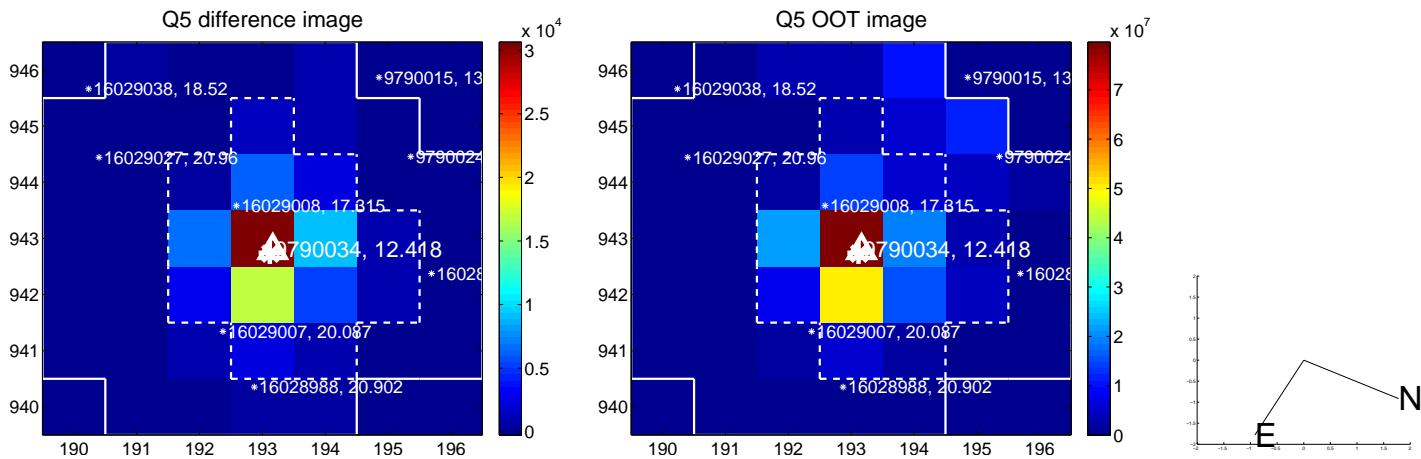


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

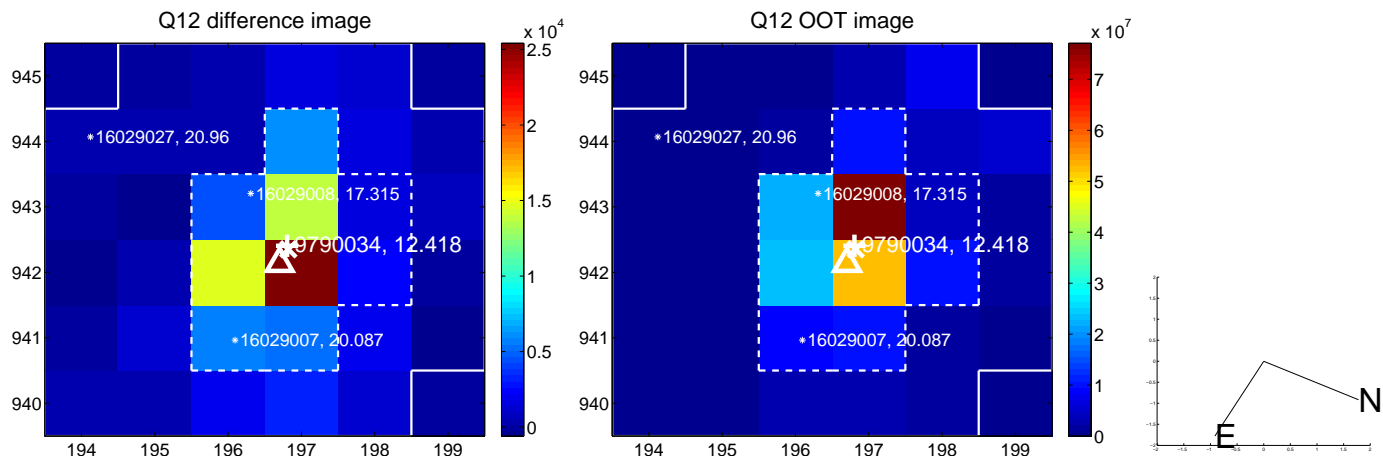
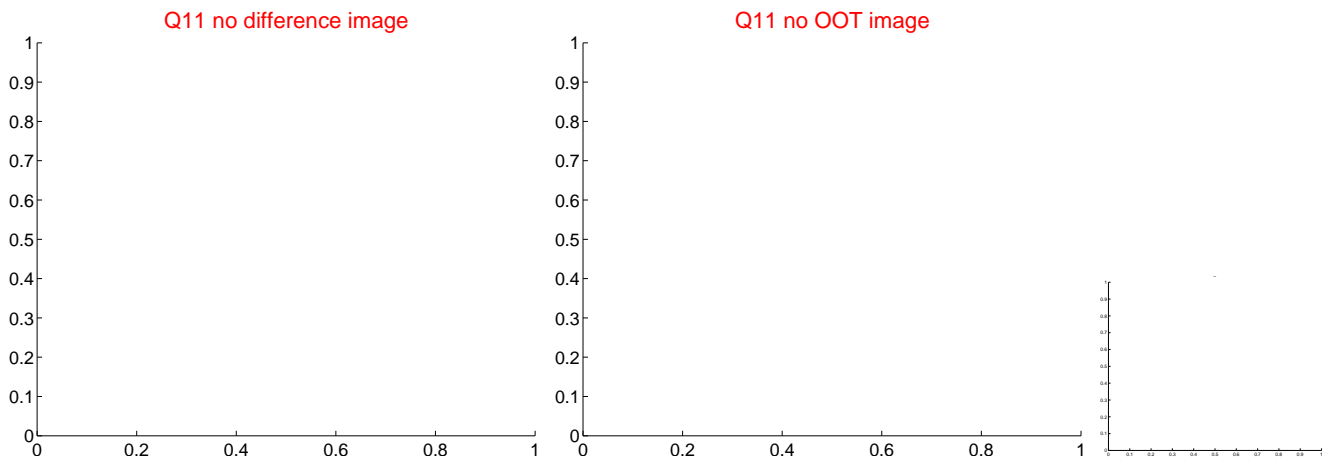
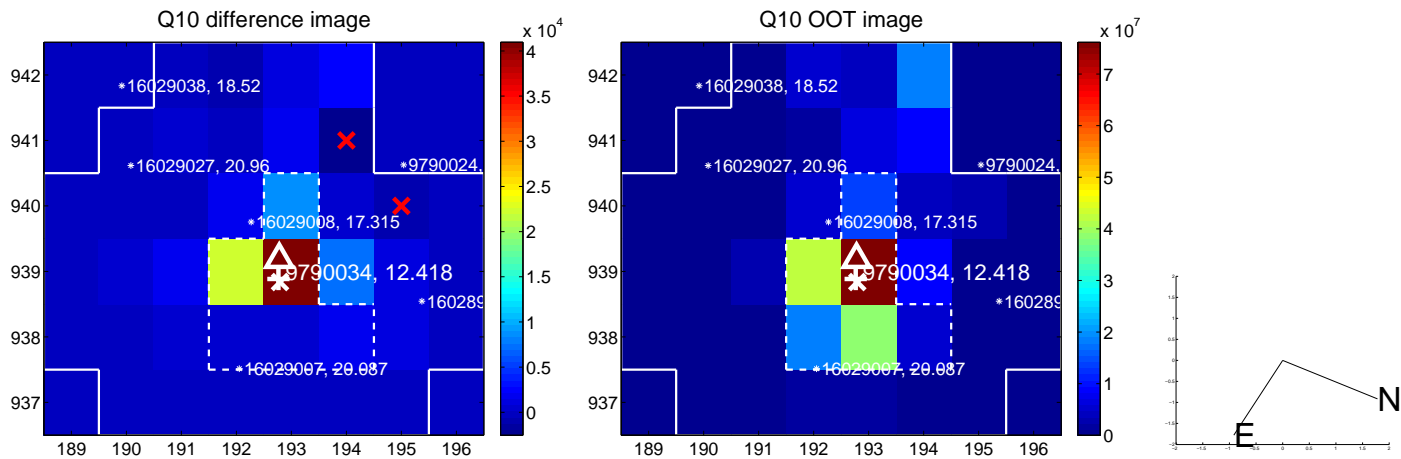
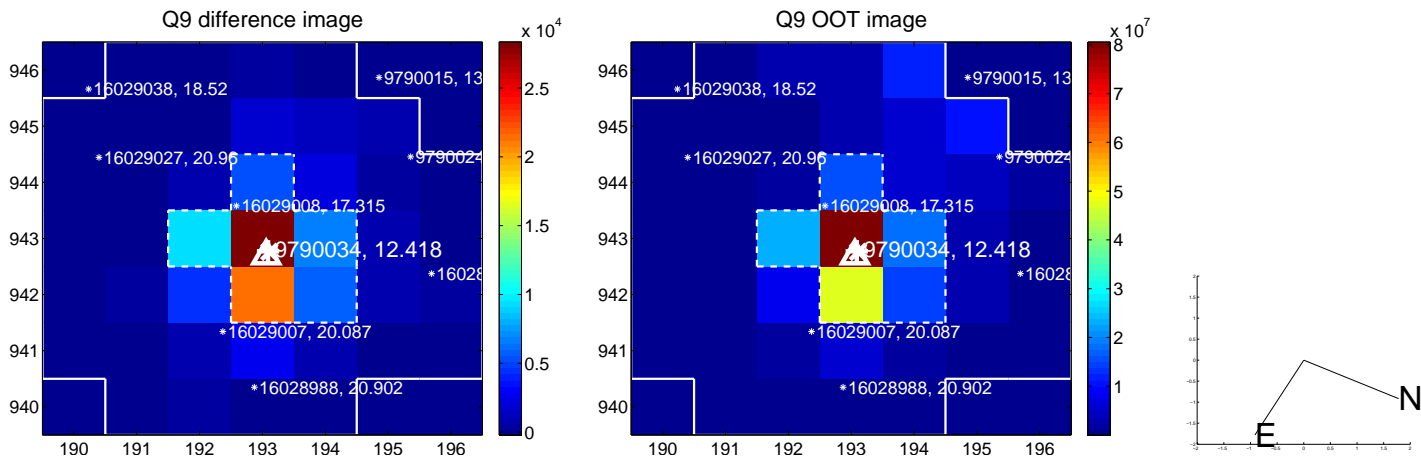
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



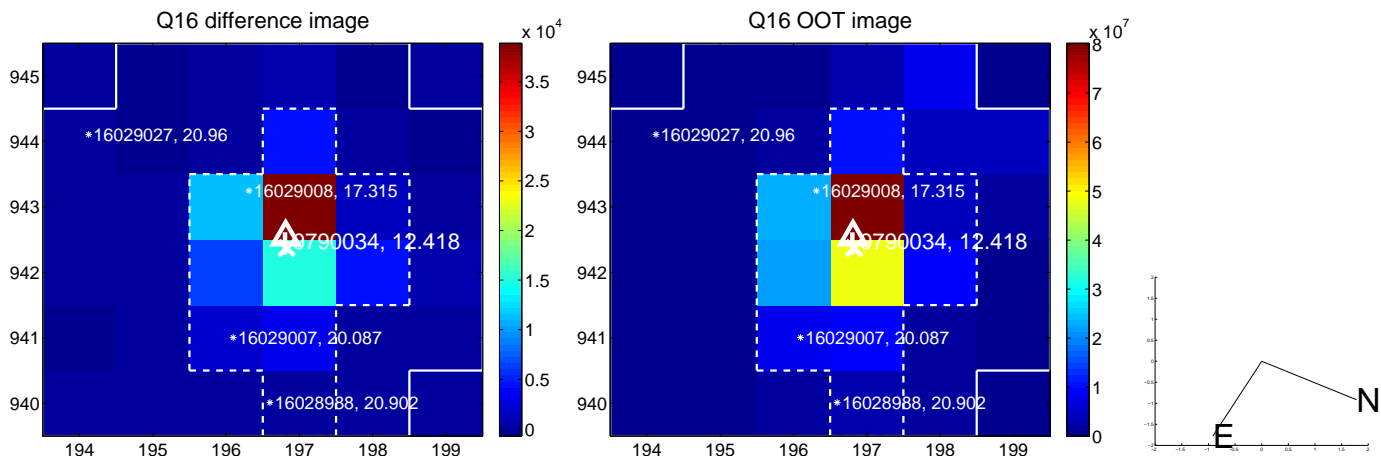
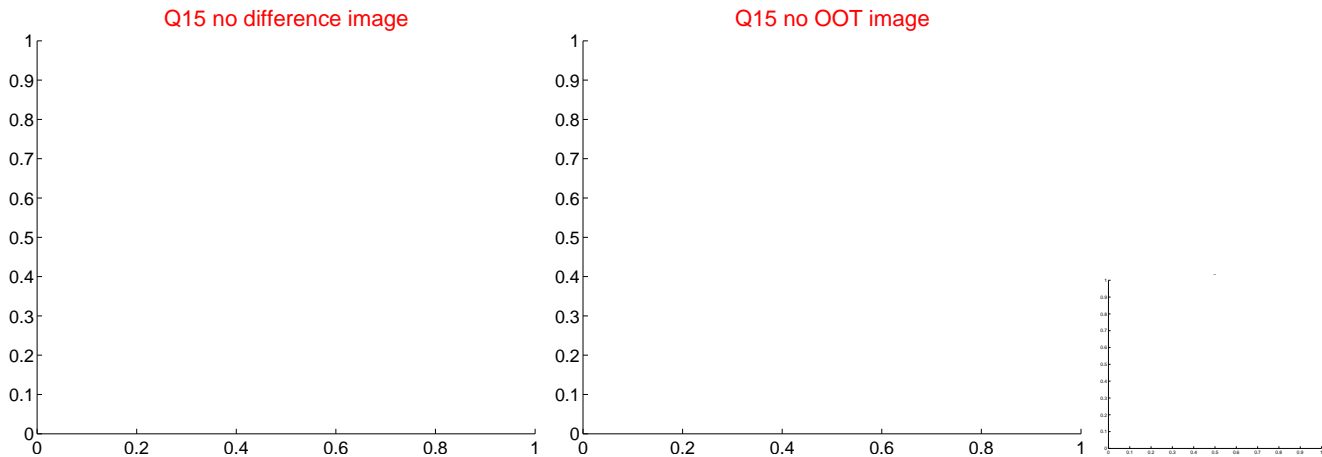
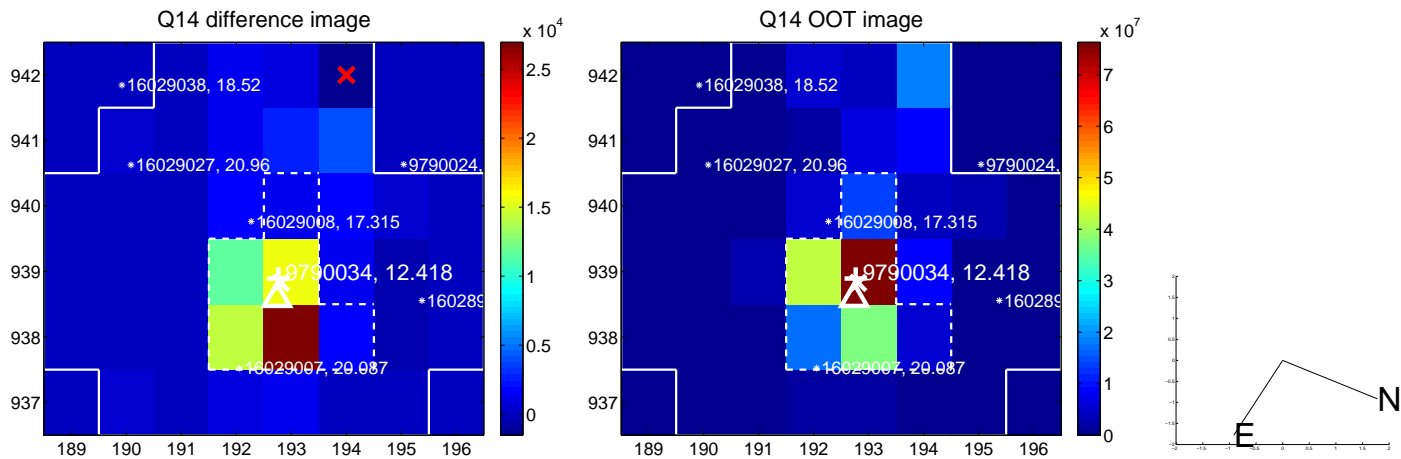
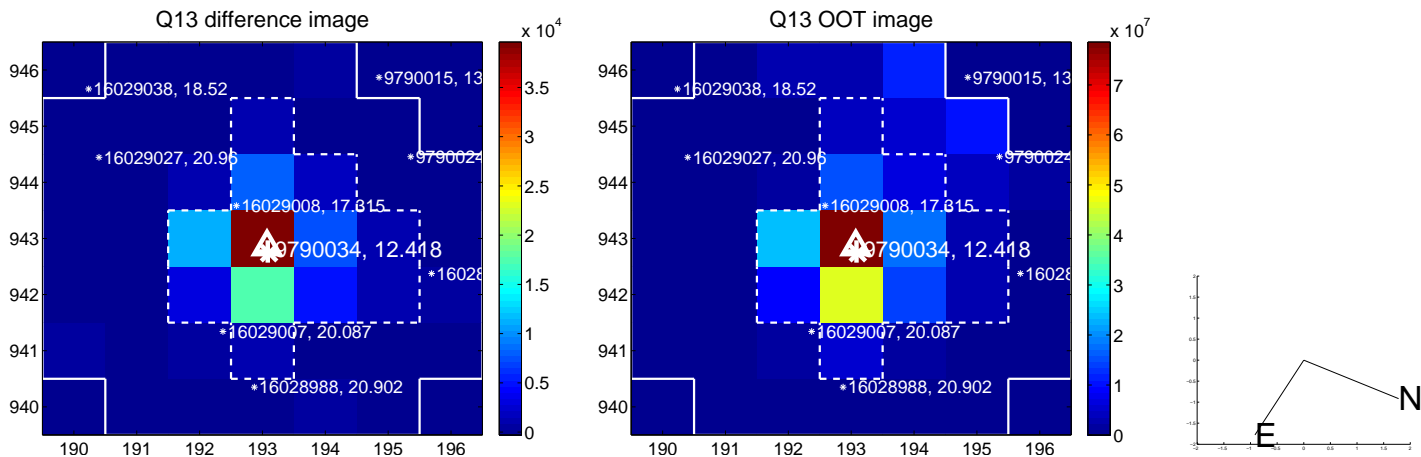
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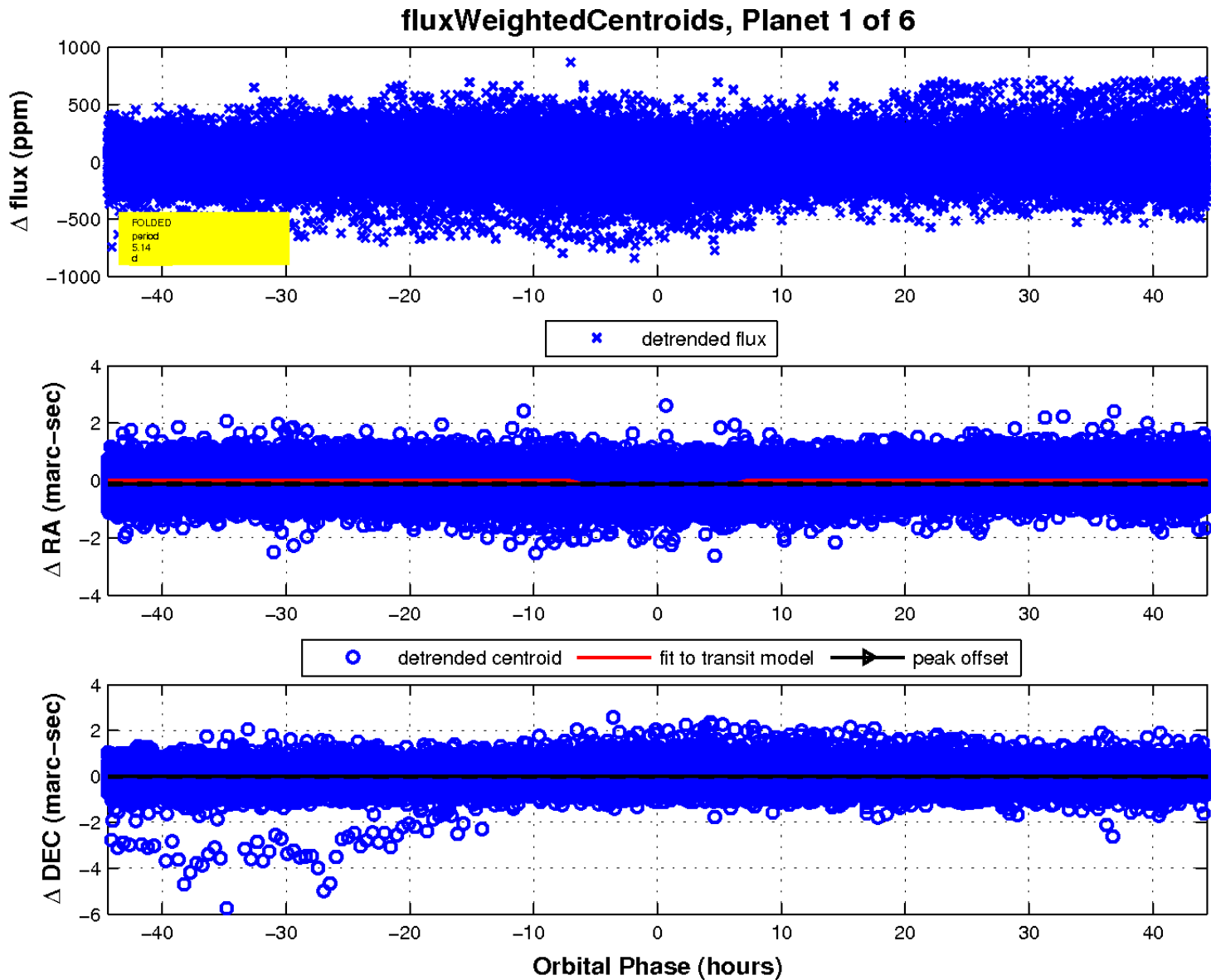
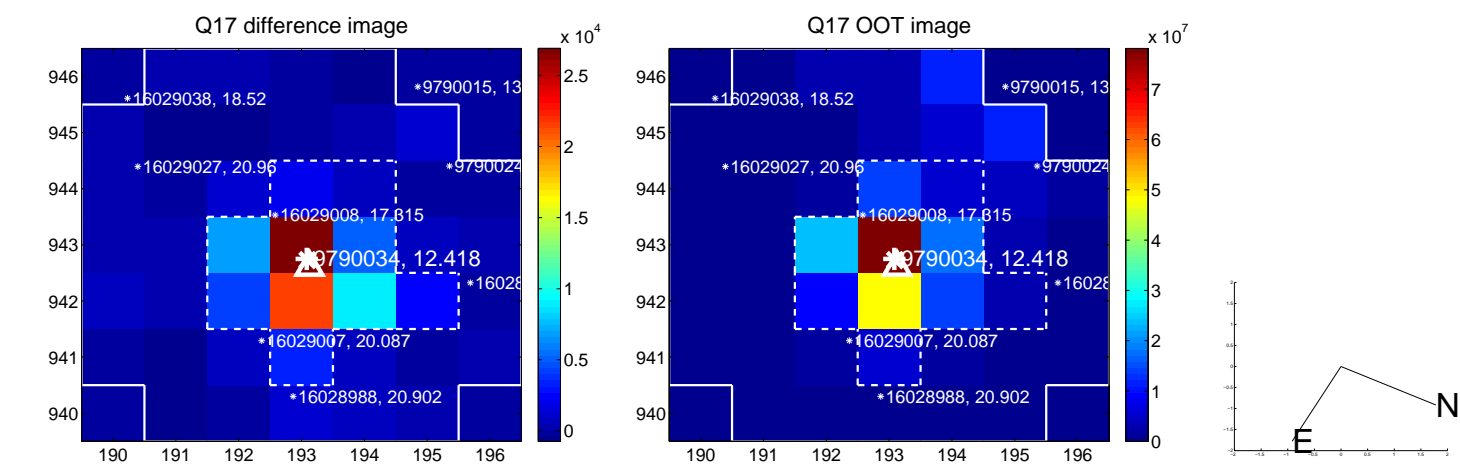
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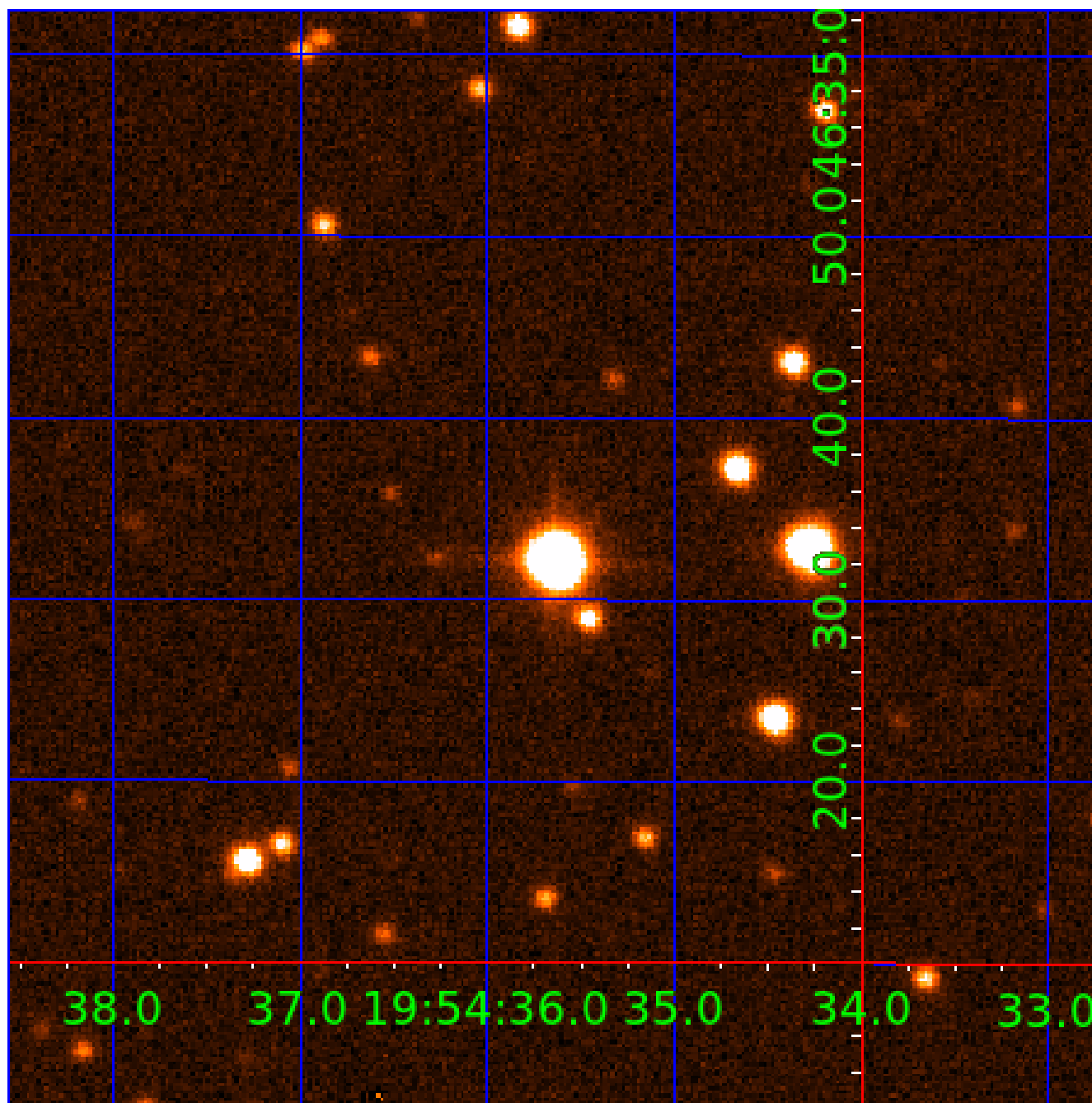


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UKIRT Image

Declination



KIC 009790034

Q1-17 DR25 TCE Parameters

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009790034-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—SAME_NTL_PERIOD
009790034-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
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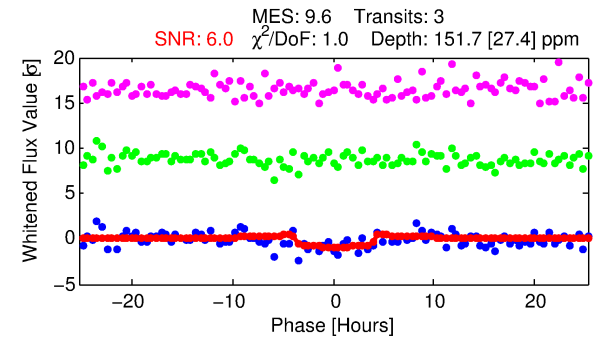
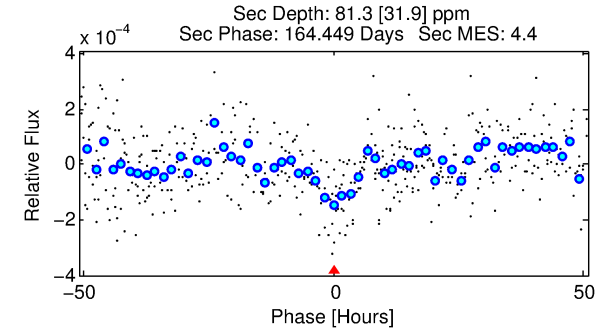
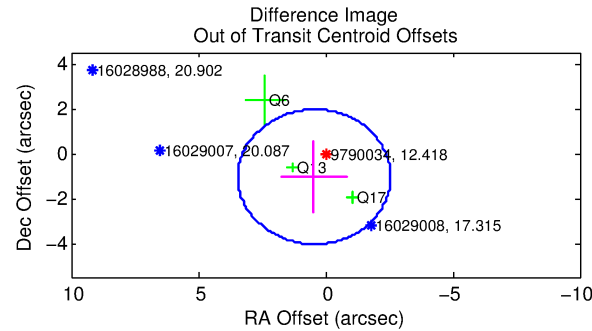
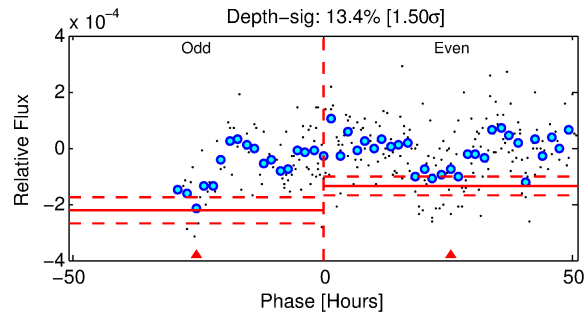
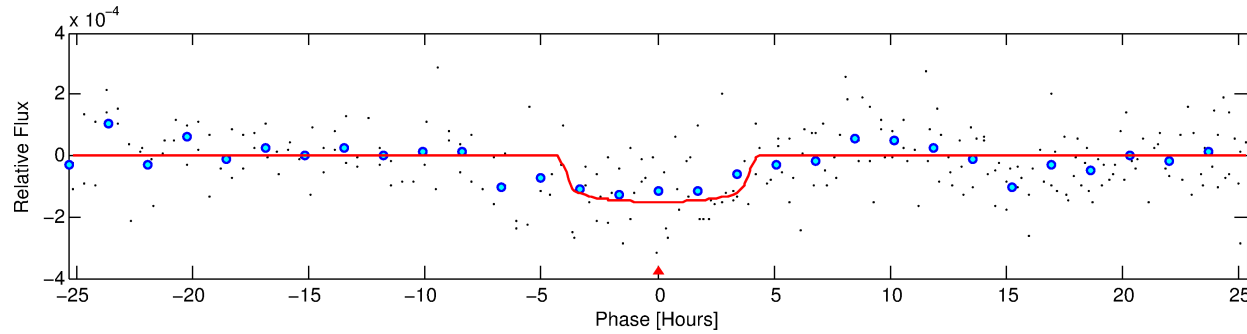
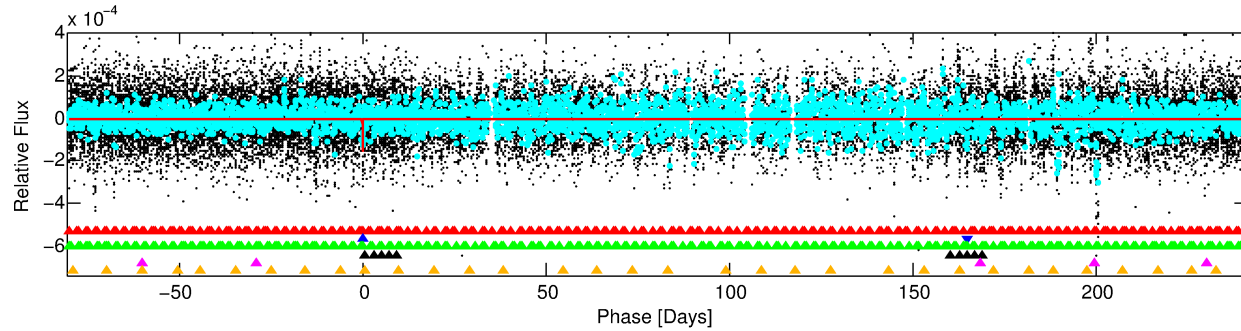
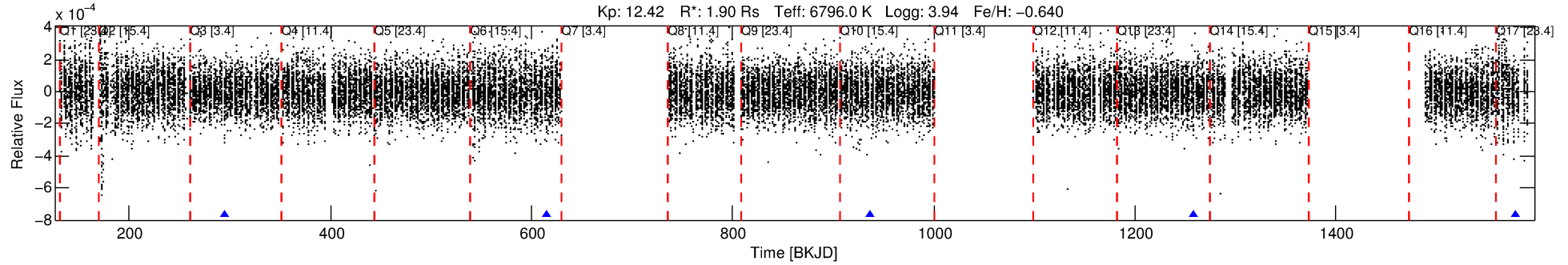
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009790034-02

No Significant Match Found

DV One-Page Summary

KIC: 9790034 Candidate: 2 of 6 Period: 321.123 d



DV Fit Results:

Period = 321.12258 [0.01201] d
Epoch = 294.5535 [0.0210] BKJD
Rp/R* = 0.0131 [0.0031]
a/R* = 136.51 [172.12]
b = 0.90 [0.28]
Seff = 7.47 [3.74]
Teq = 422 [53] K
Rp = 2.72 [1.11] Re
a = 0.9629 [0.2961] AU
Ag = 5600.31 [4390.48] [1.28 σ]
Teffp = 5639 [890] K [5.85 σ]

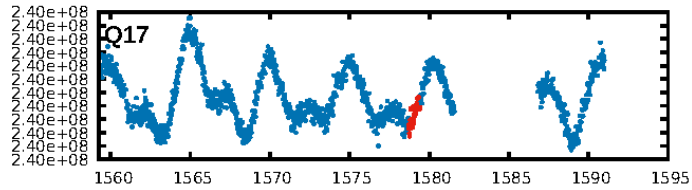
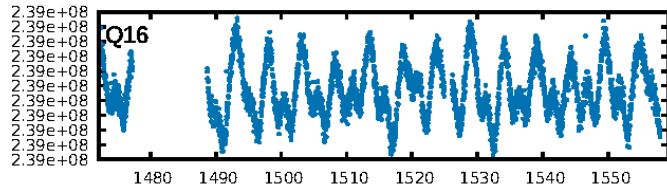
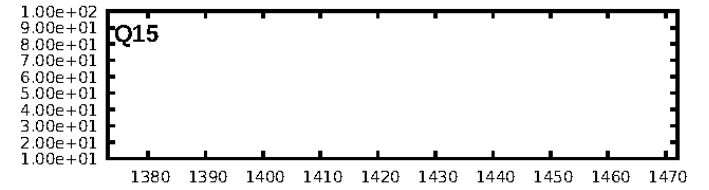
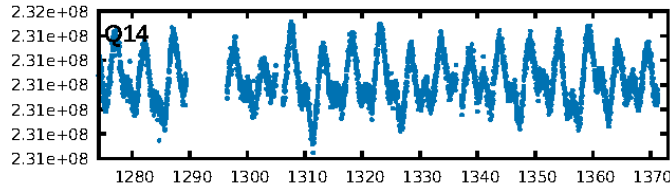
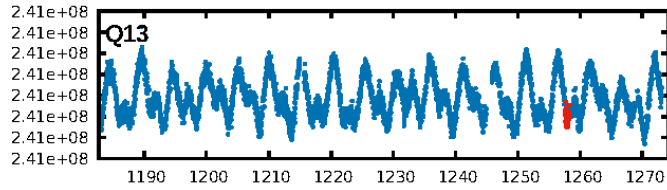
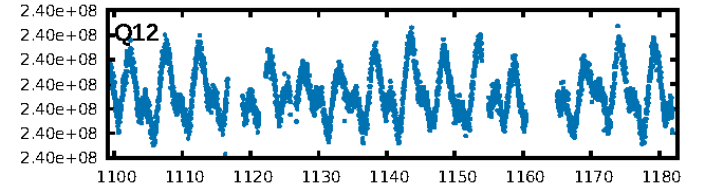
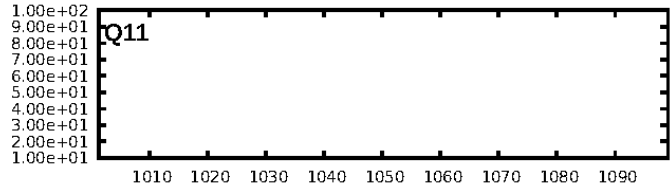
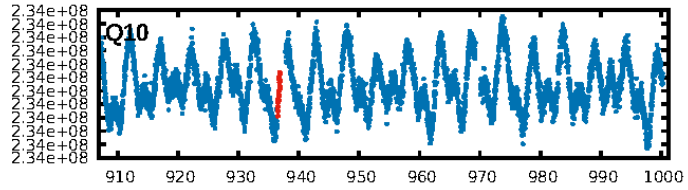
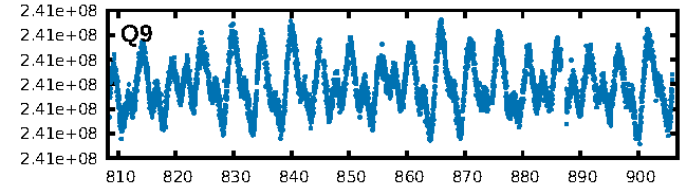
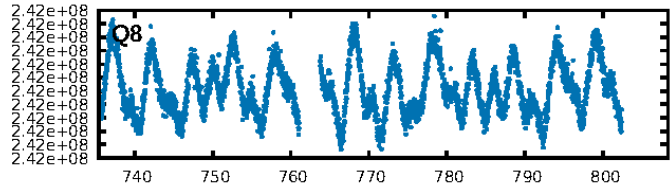
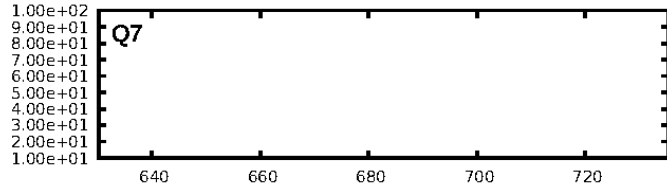
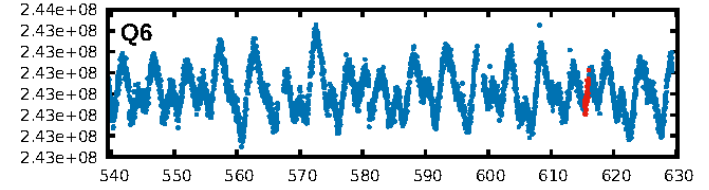
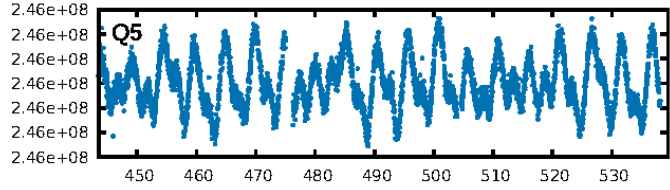
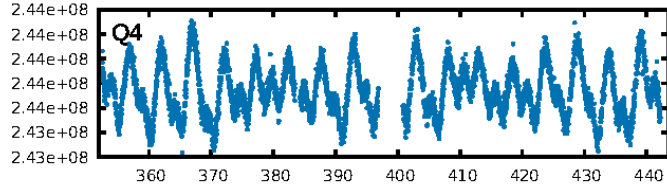
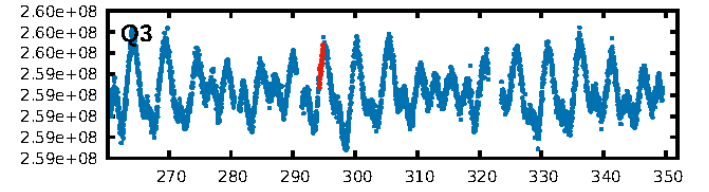
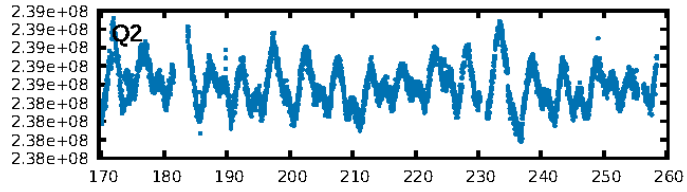
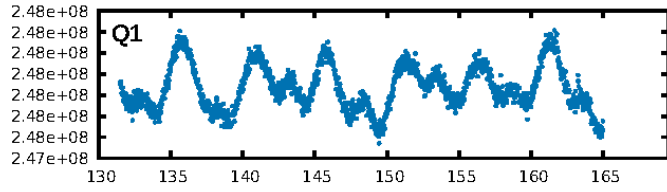
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [315.62 σ]
LongPeriod-sig: 100.0% [50.55 σ]
ModelChiSquare2-sig: 6.1%
ModelChiSquareGof-sig: 97.5%
Bootstrap-pfa: 1.65e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.152
Centroid-sig: 3.5%
Centroid-so: 1.651 arcsec [1.64 σ]
OotOffset-rm: 1.135 arcsec [1.13 σ]
KicOffset-rm: 1.234 arcsec [1.55 σ]
OotOffset-st: 1/0/0/2 [3]
KicOffset-st: 1/0/0/2 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 0.00 [0/4]

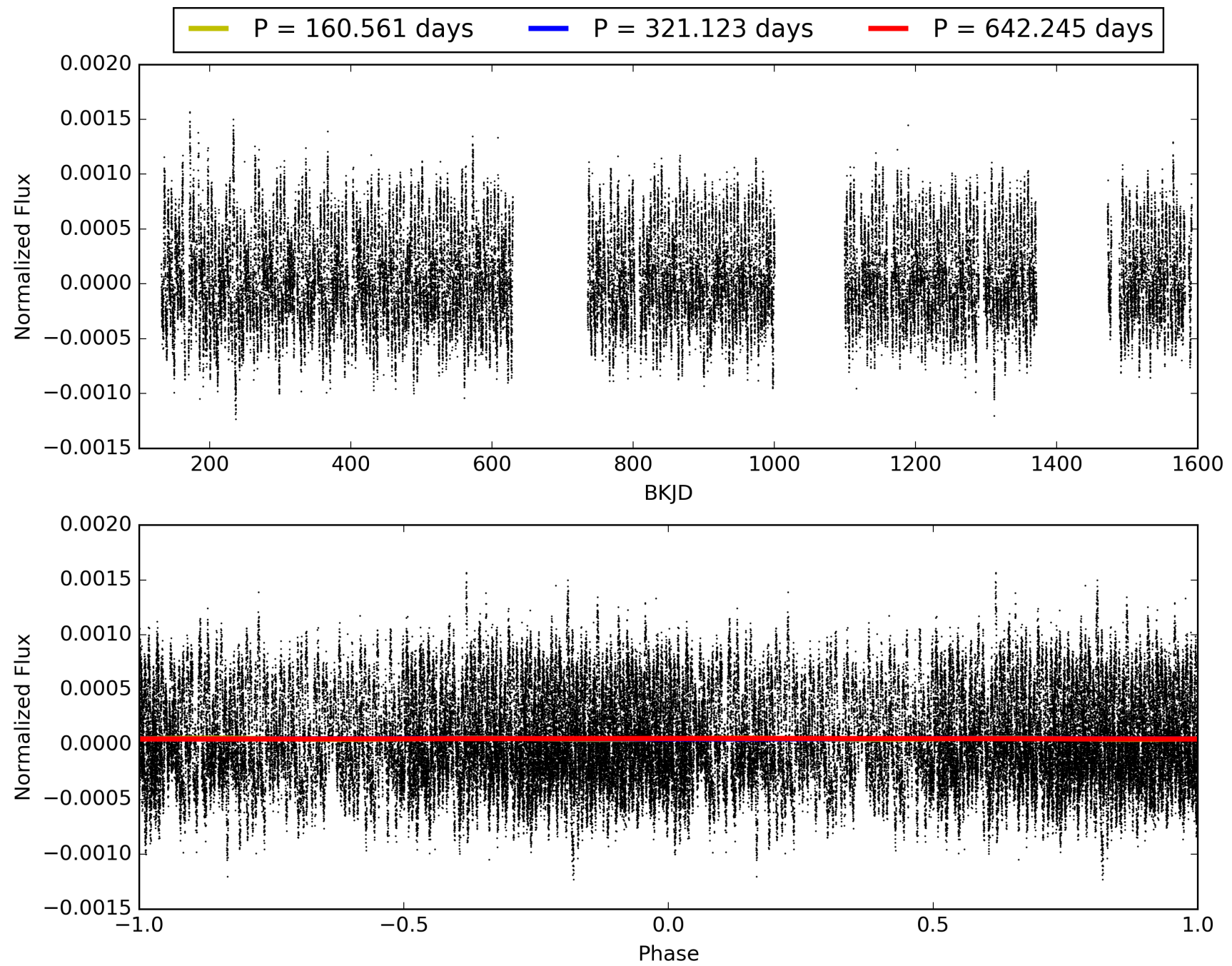
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:29:46 Z

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

TCE 009790034-02, PDC Light Curves

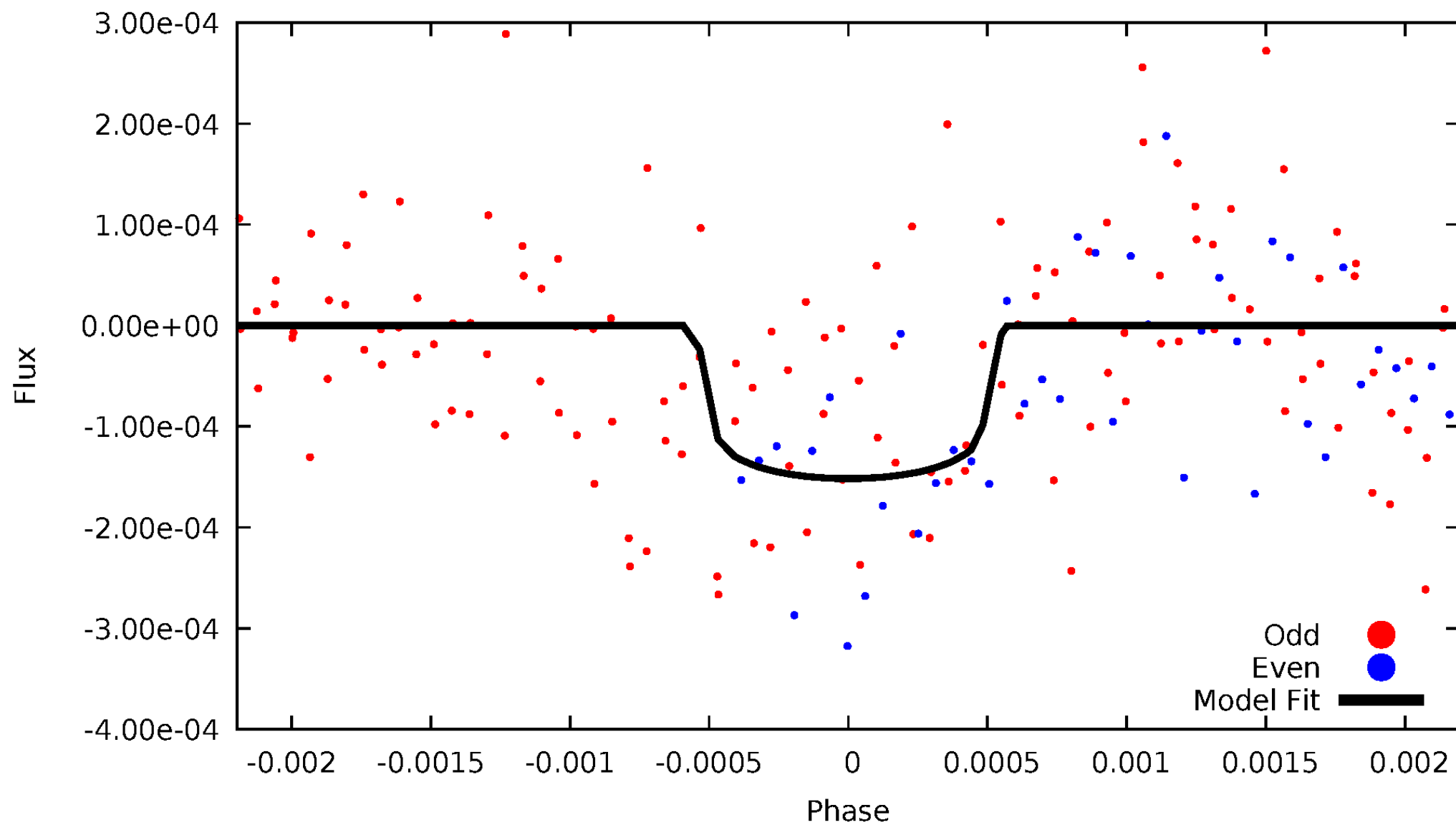


TCE 009790034-02



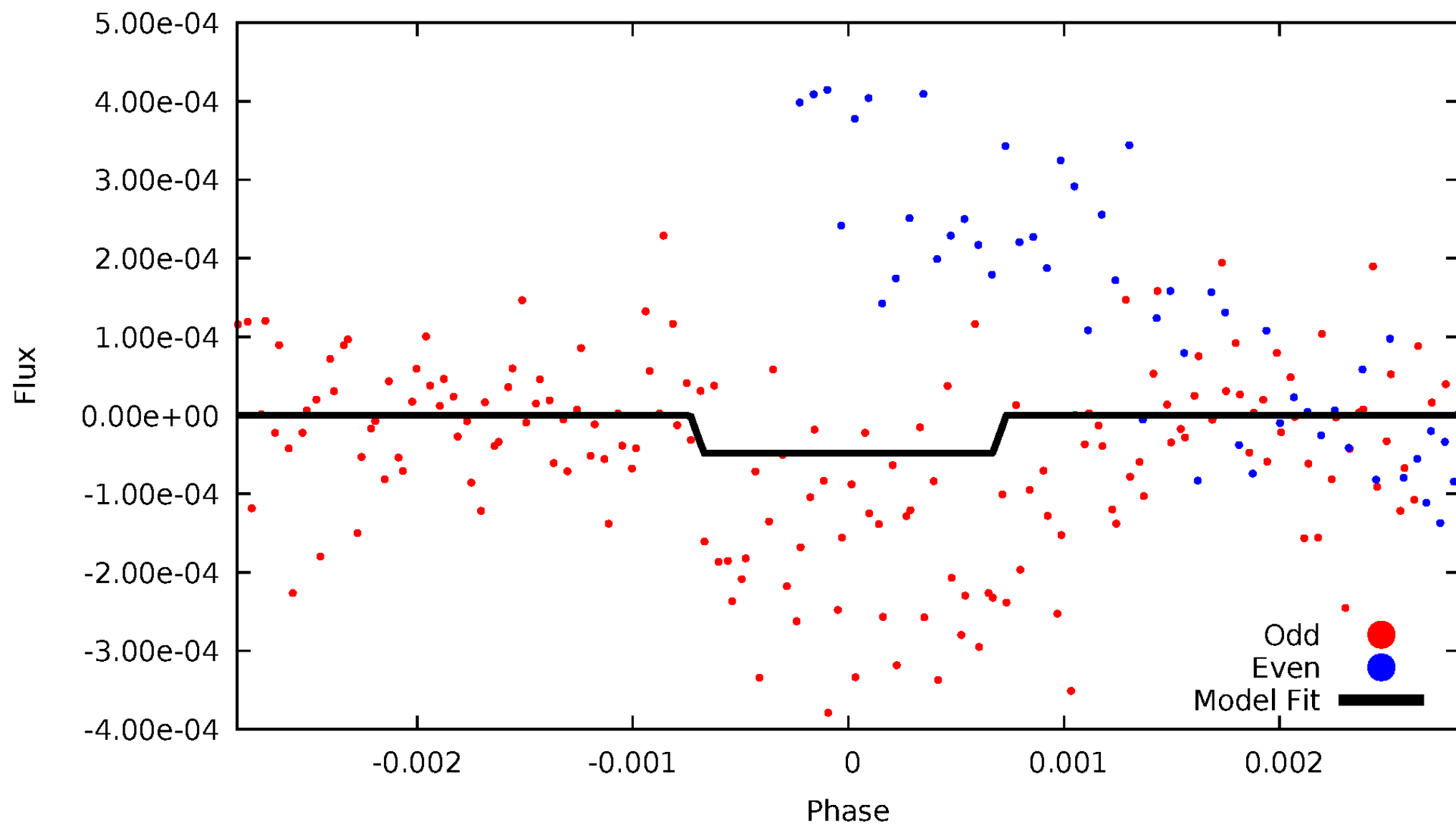
DV Odd/Even

TCE 009790034-02



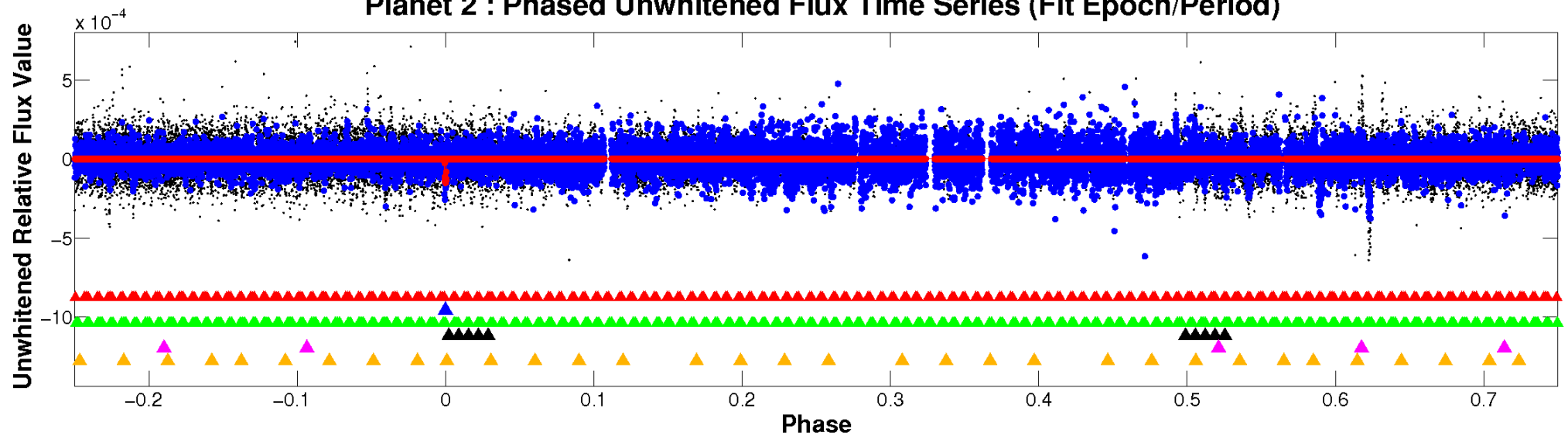
ALT Odd/Even

TCE 009790034-02

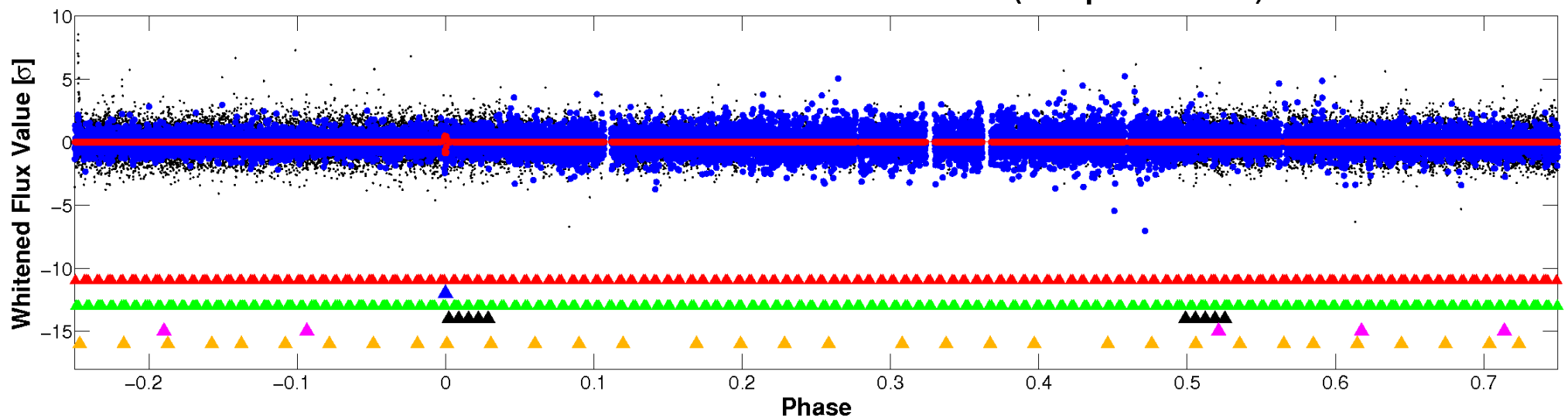


Non-Whitened Vs. Whitened Light Curve

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

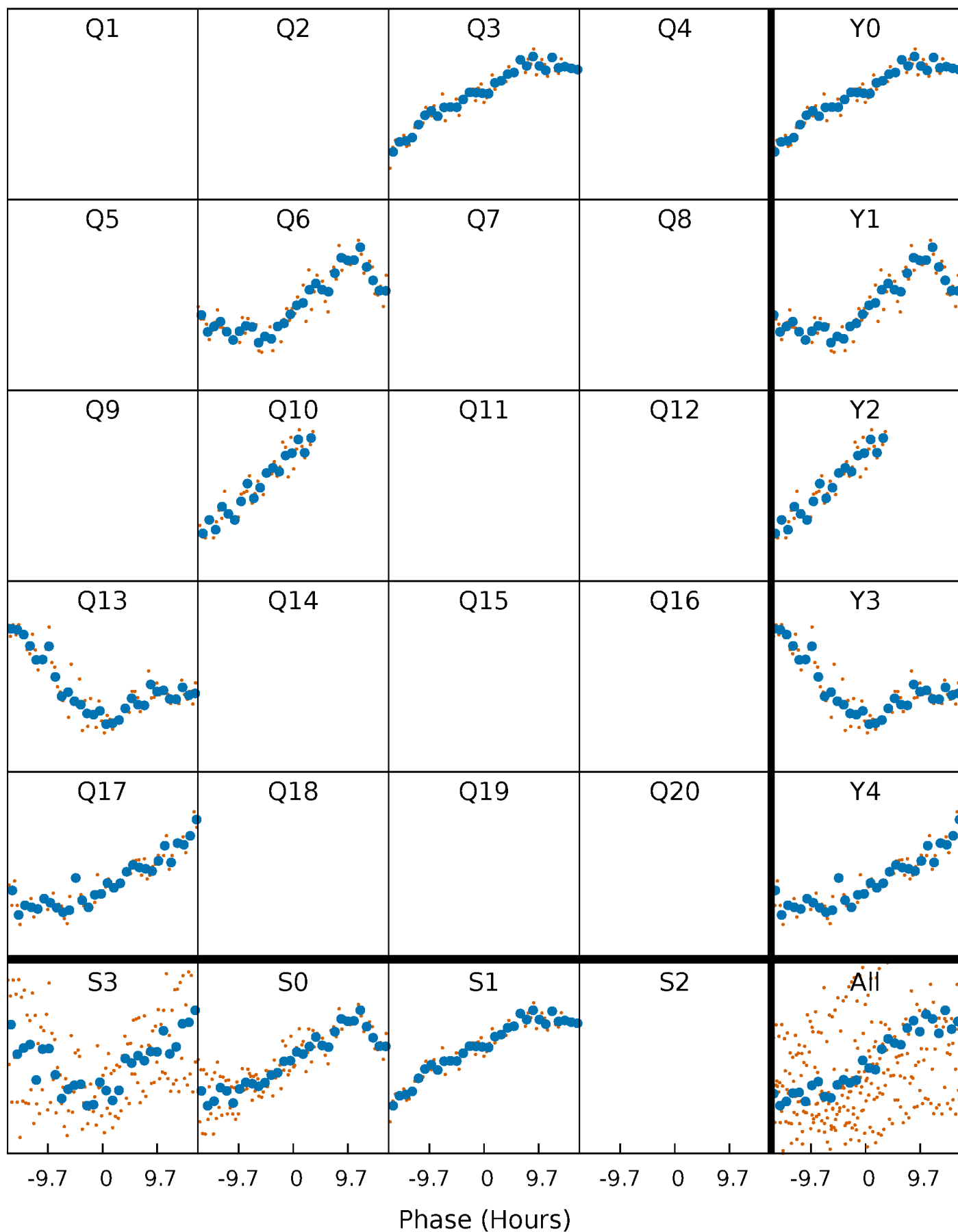


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 009790034-02 $P=321.122579$ Days $T_0=294.553475$ (BKJD)



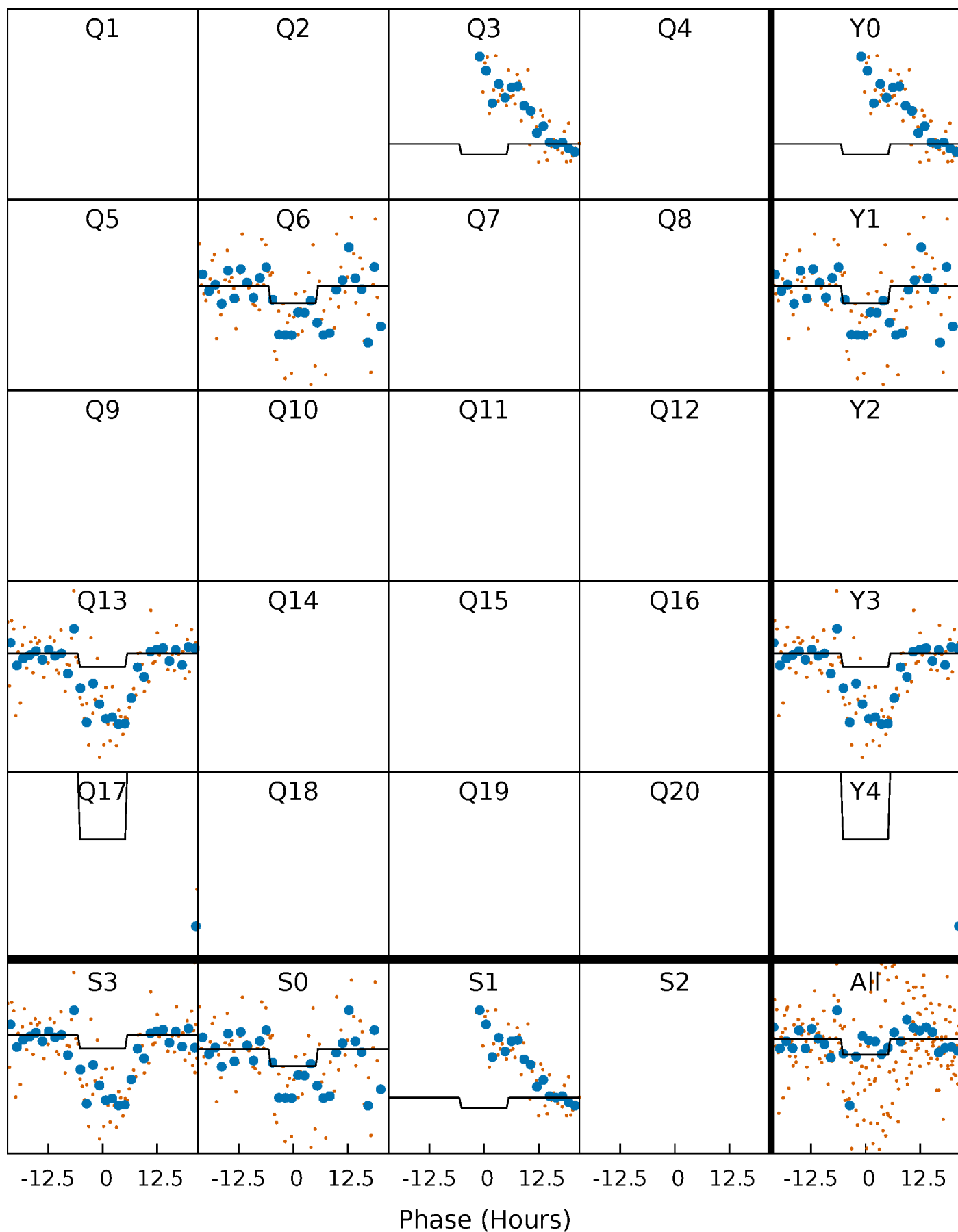
DV Quarter-Phased Transit Curves

TCE 009790034-02 $P=321.122579$ Days $T_0=294.553475$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

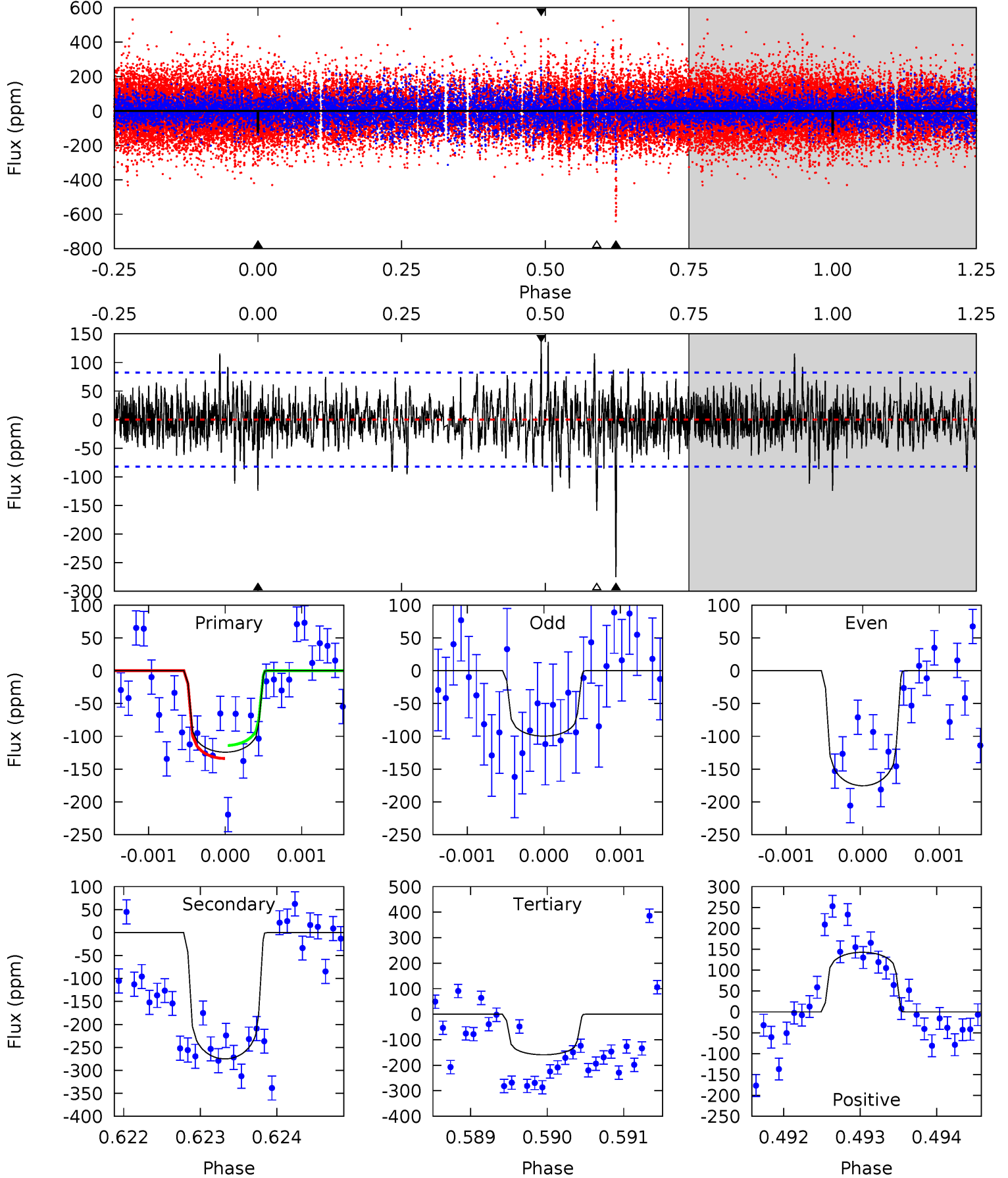
TCE 009790034-02 $P=321.099773$ Days $T_0=294.502111$ (BKJD)



DV Model-Shift Uniqueness Test

009790034-02, P = 321.122579 Days, E = 294.553475 Days

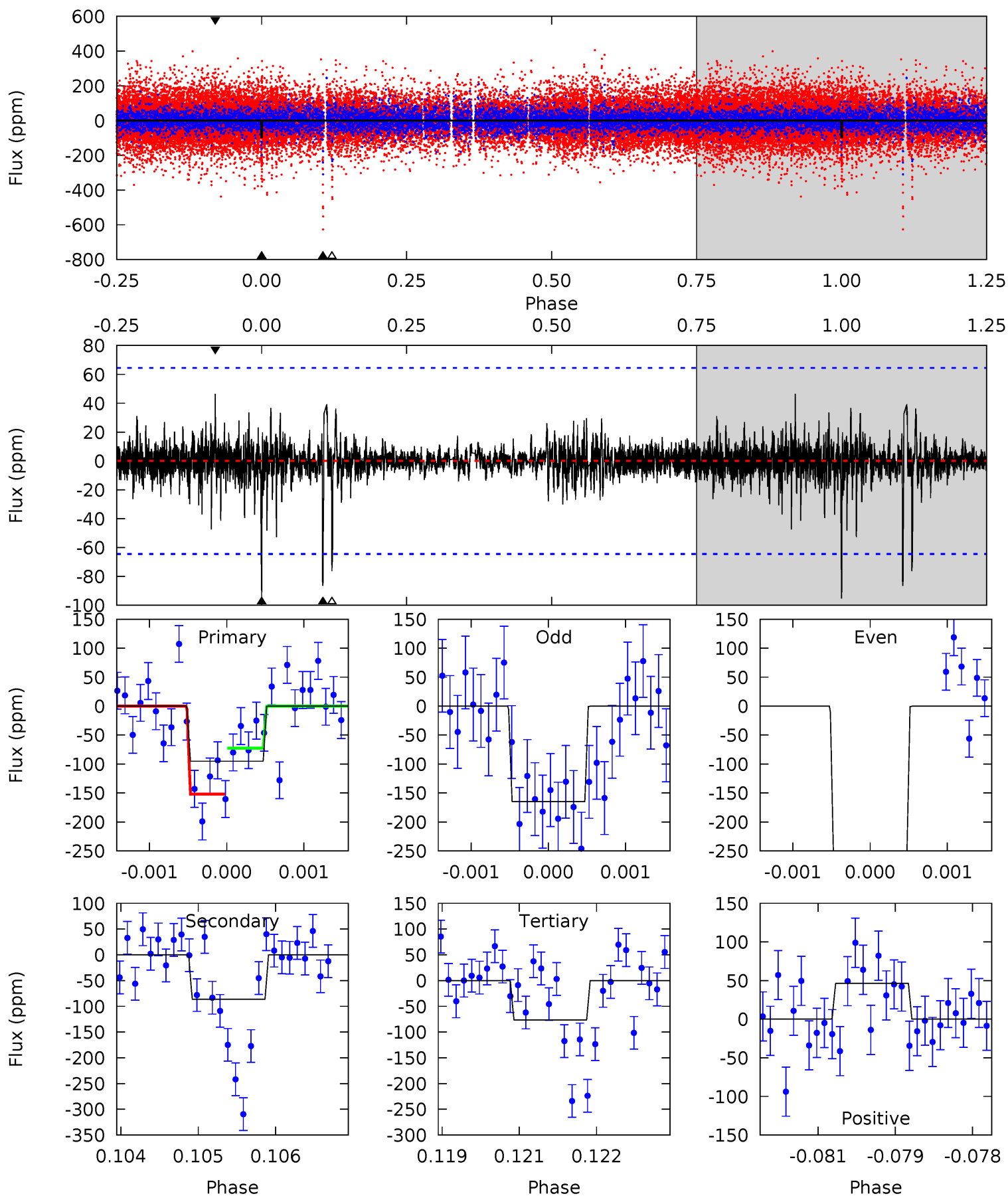
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.21	18.2	10.5	9.44	5.43	3.26	2.00	-2.30	-1.23	7.67	8.74	2.31	0.84	0.34	0.66



Alt Model-Shift Uniqueness Test

009790034-02, P = 321.099773 Days, E = 294.502111 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.96	7.23	6.38	3.89	5.39	3.19	0.74	1.59	4.07	0.85	3.34	4.74	0.09	0.33	3.19



Stellar Parameters For KIC 009790034

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6796^{+183}_{-224}	$3.941^{+0.280}_{-0.100}$	$-0.640^{+0.300}_{-0.300}$	$1.904^{+0.386}_{-0.628}$	$1.155^{+0.193}_{-0.158}$	$0.236^{+0.428}_{-0.086}$
	+3%/-3%	+7%/-3%	+47%/-47%	+20%/-33%	+17%/-14%	+182%/-36%
Source	PHO1	FLK73	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 009790034-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-275 ± 15	$2.59^{+0.76}_{-0.73}$	580^{+35}_{-48}	7830^{+1662}_{-1004}	21278^{+18840}_{-8484}
Alt.	-86 ± 12	$1.38^{+0.67}_{-0.61}$	577^{+35}_{-46}	7983^{+3858}_{-1495}	24051^{+52354}_{-13593}

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

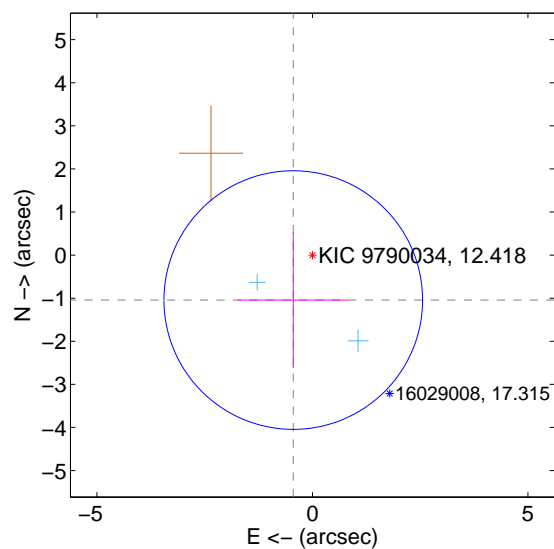
Supplemental centroid analysis for 009790034-02. Kepler magnitude: 12.42. Transit SNR 5.97

There are 2 quarters with good PRF difference image offsets

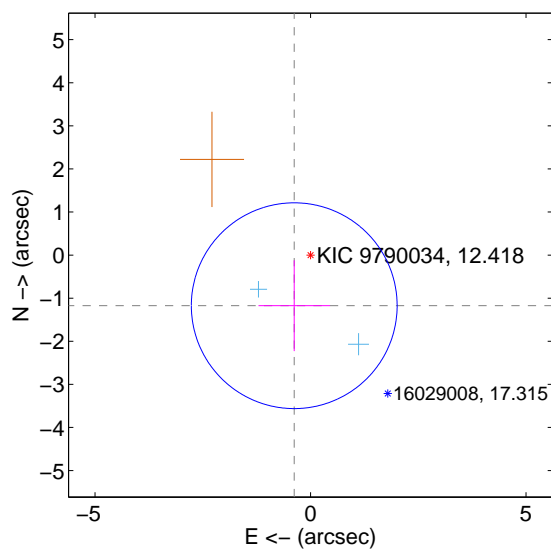
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.135 ± 1.000	1.13	0.445 ± 1.286	-1.043 ± 1.579
PRF-fit source offset from KIC position	1.234 ± 0.796	1.55	0.378 ± 0.831	-1.174 ± 1.054
photometric centroid source offset	1.65 ± 1.01	1.64	-1.10 ± 1.08	1.23 ± 0.95

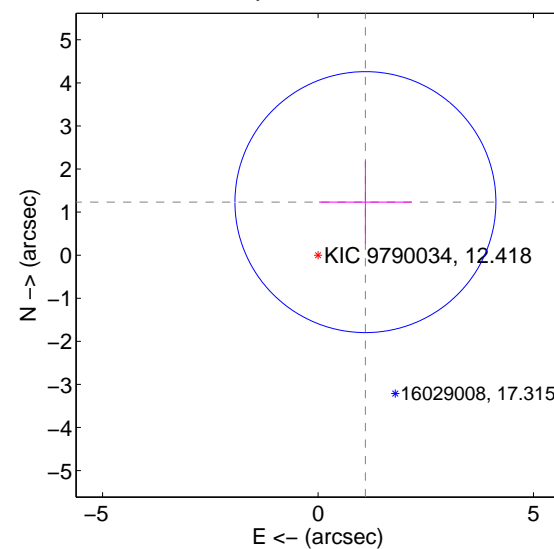
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

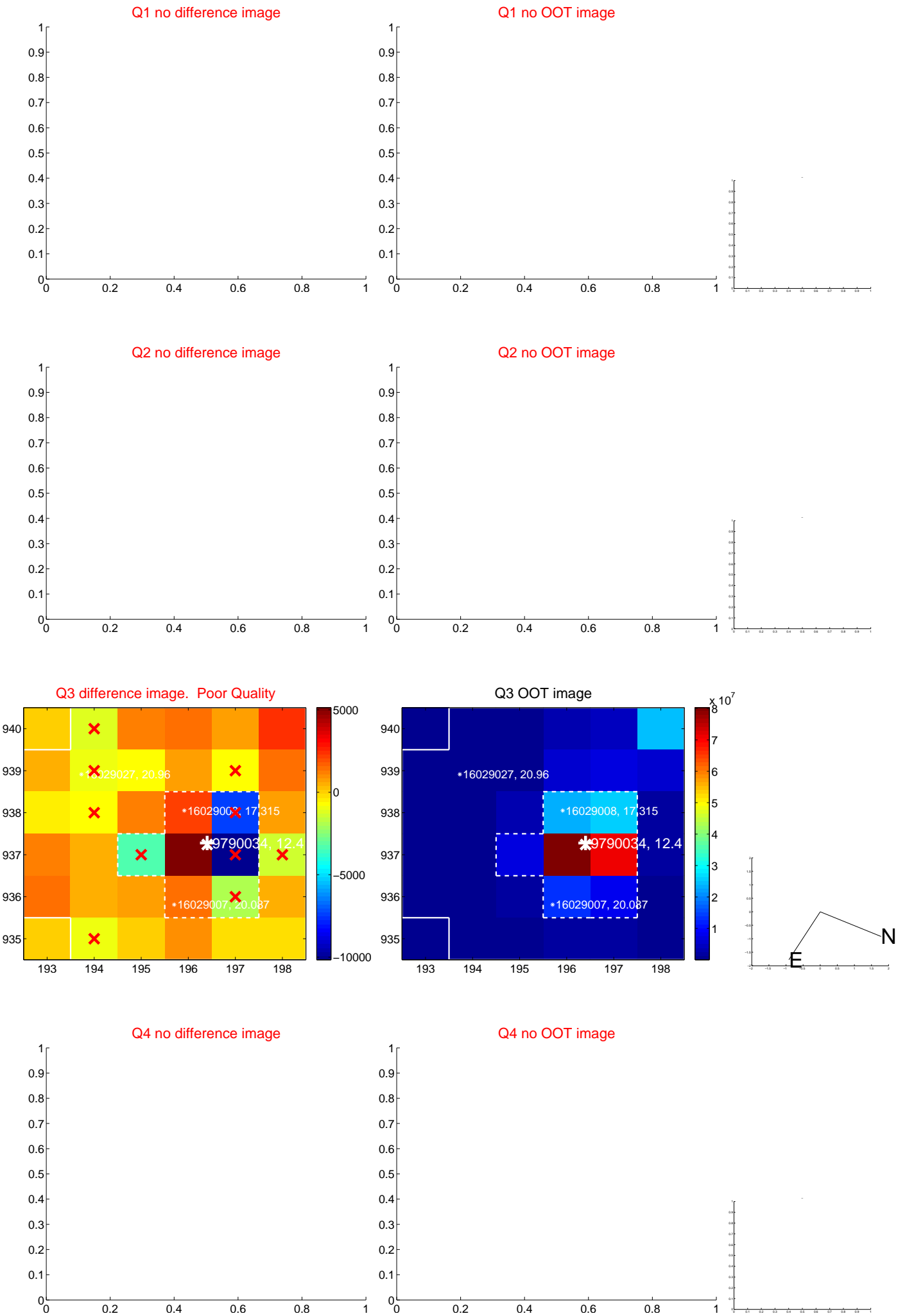


offset from photometric centroids



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.

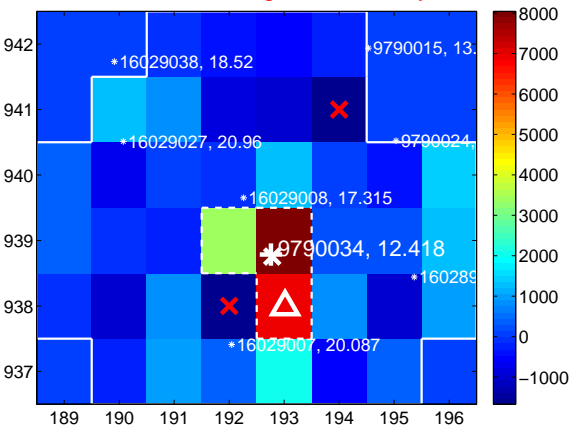
Q5 no difference image



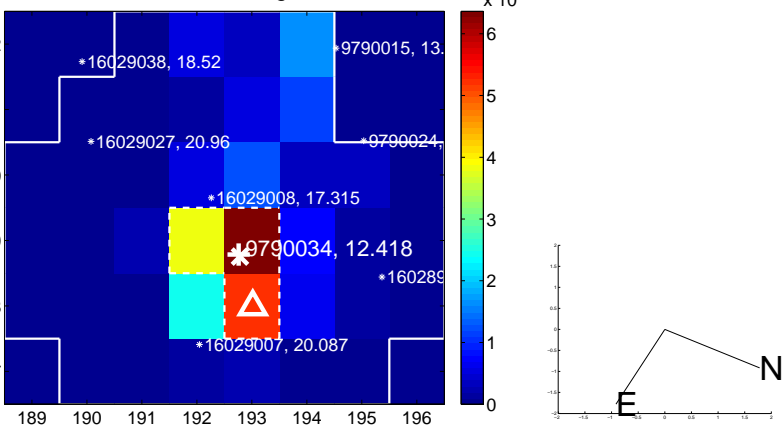
Q5 no OOT image



Q6 difference image. Poor Quality



Q6 OOT image



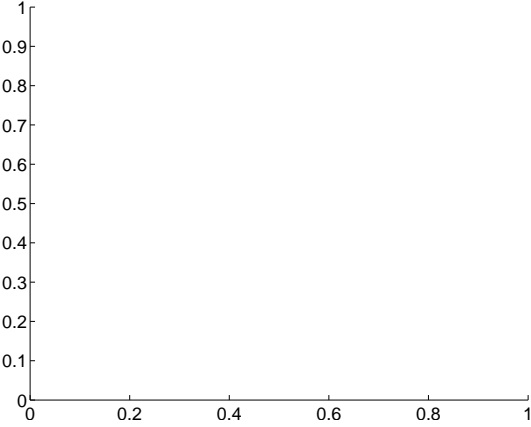
Q7 no difference image



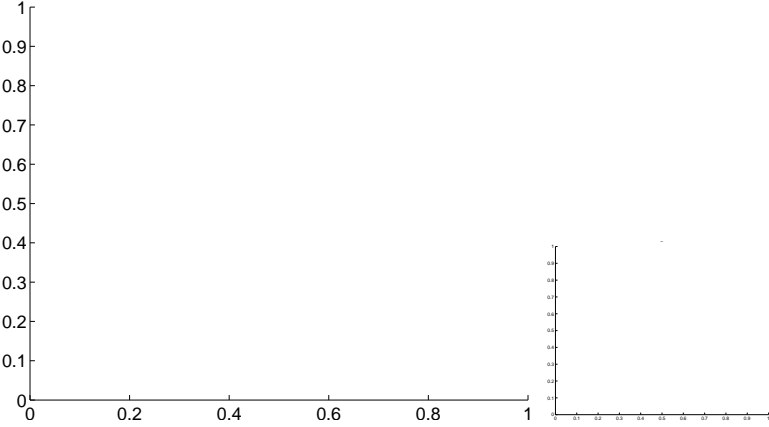
Q7 no OOT image



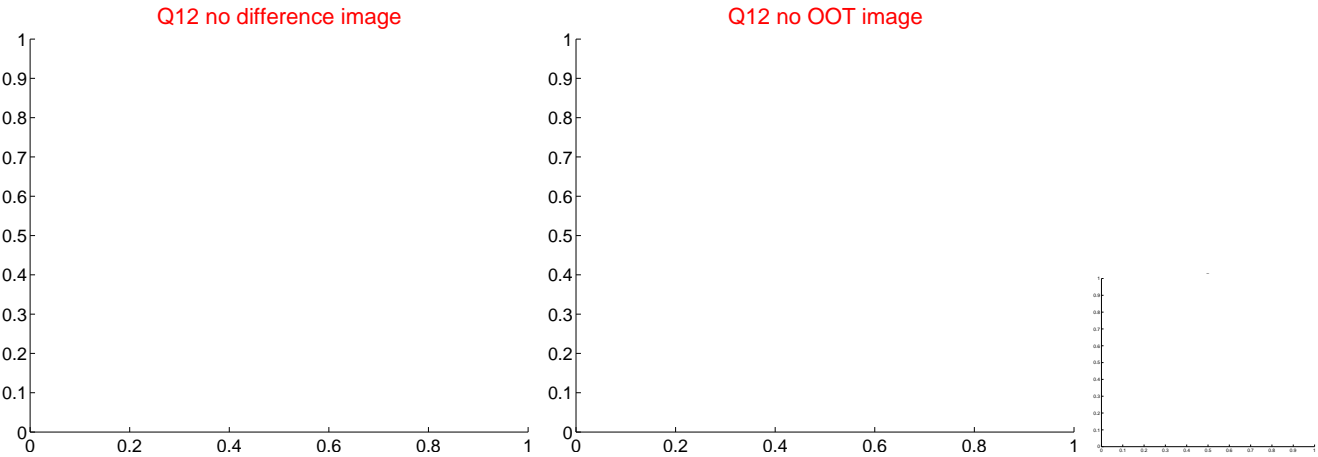
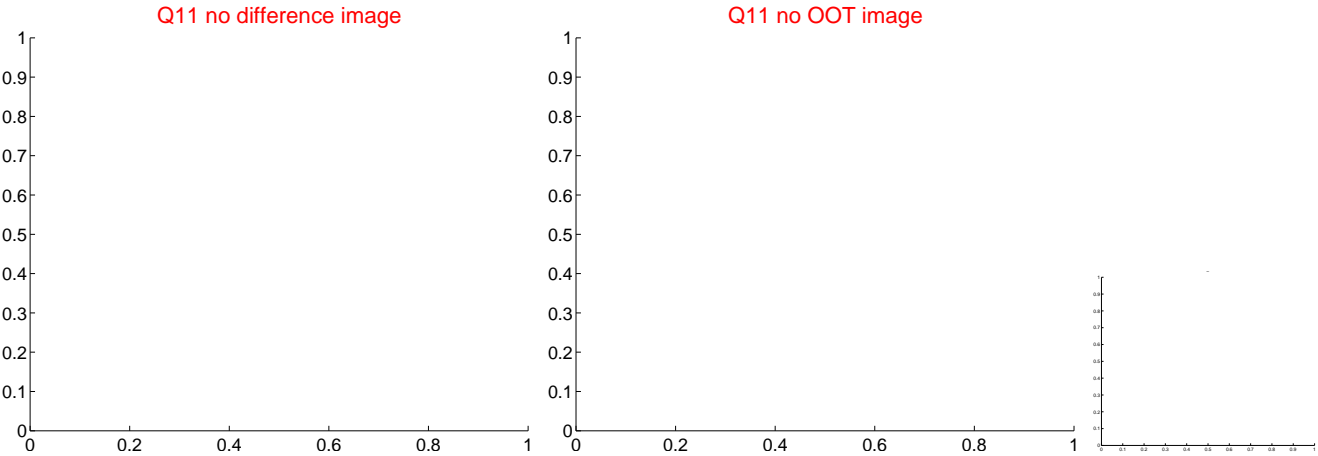
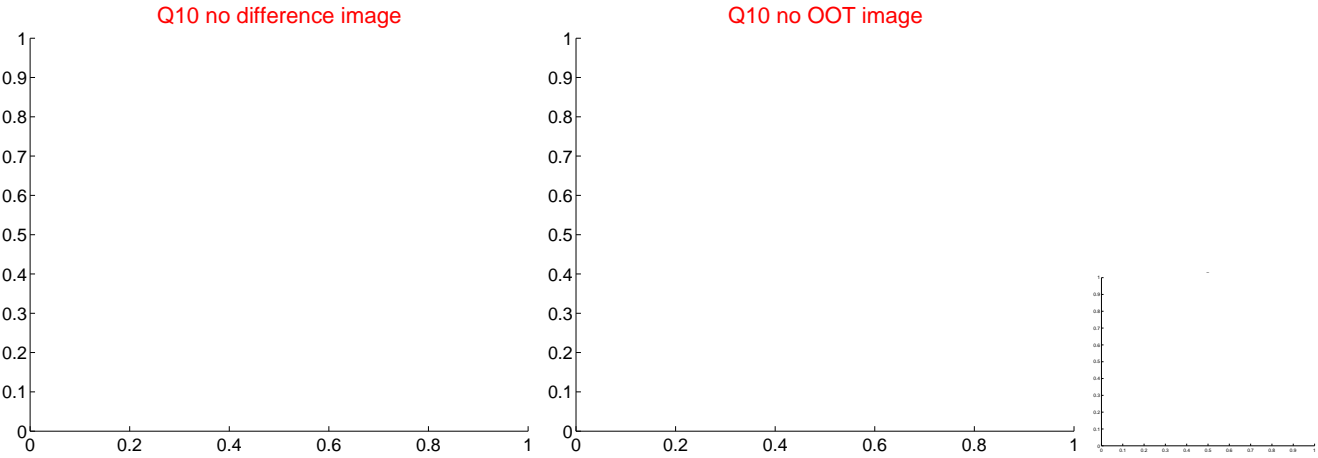
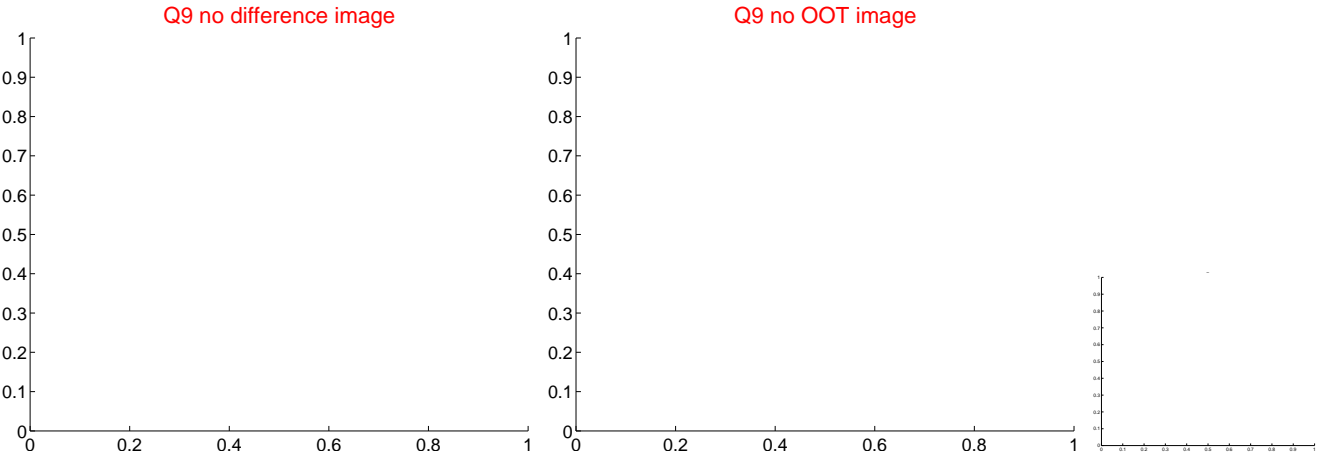
Q8 no difference image



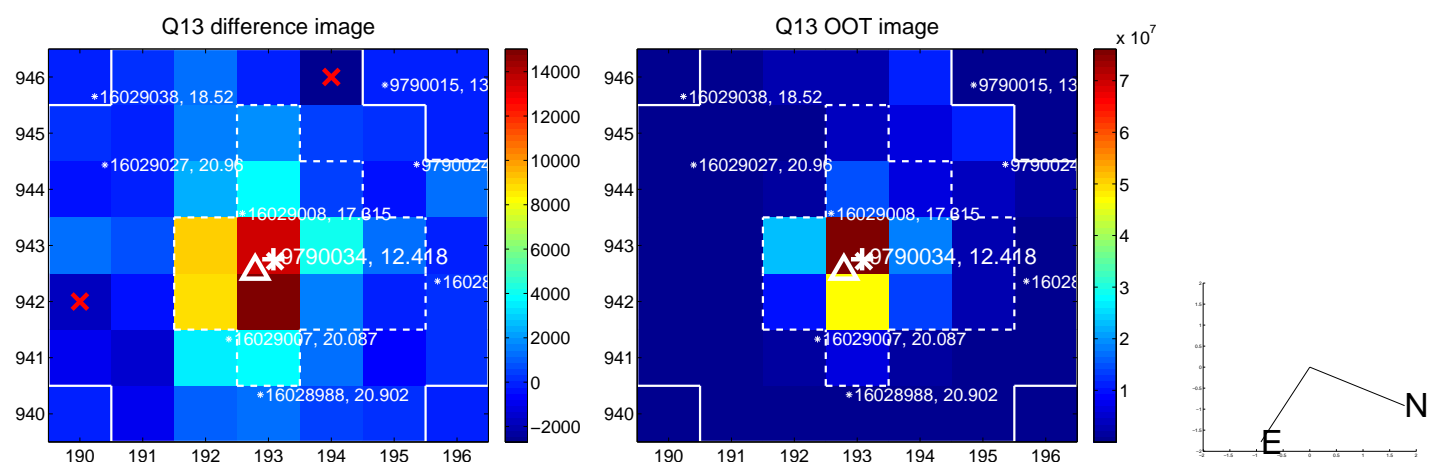
Q8 no OOT image



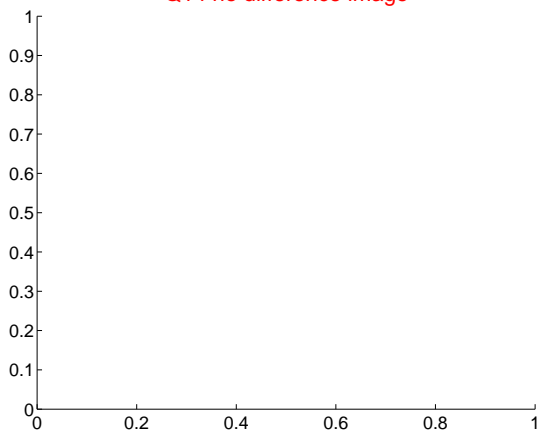
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



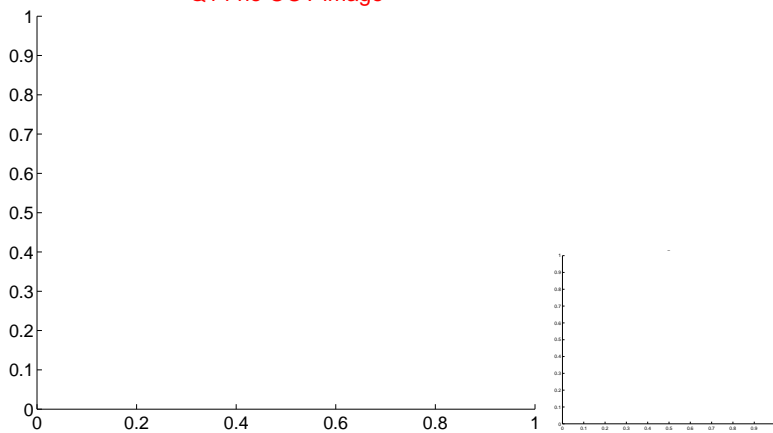
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



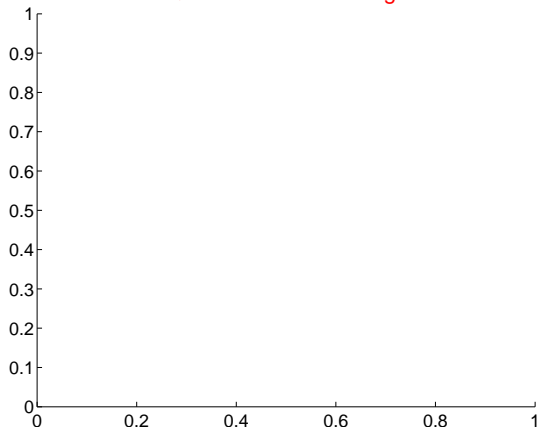
Q14 no difference image



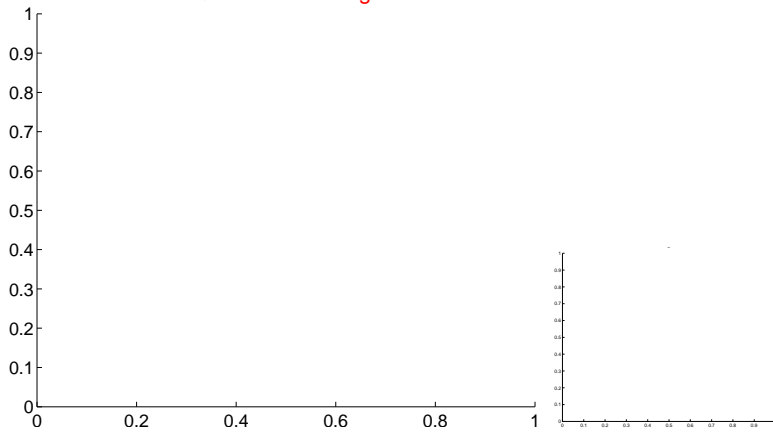
Q14 no OOT image



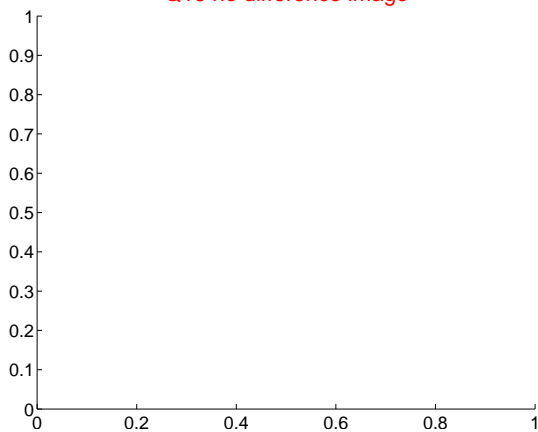
Q15 no difference image



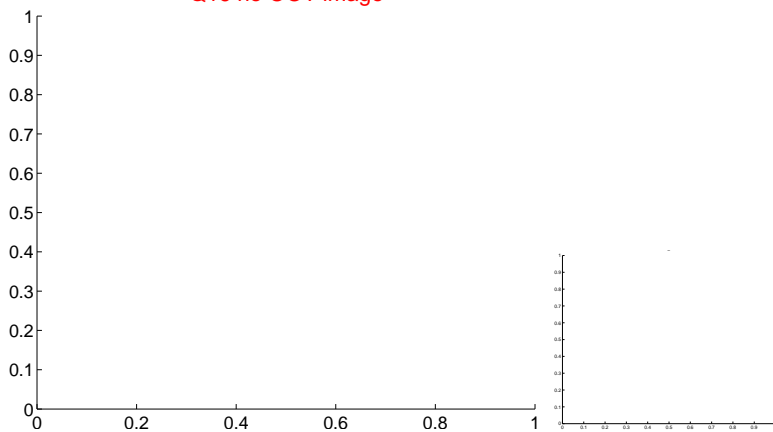
Q15 no OOT image



Q16 no difference image

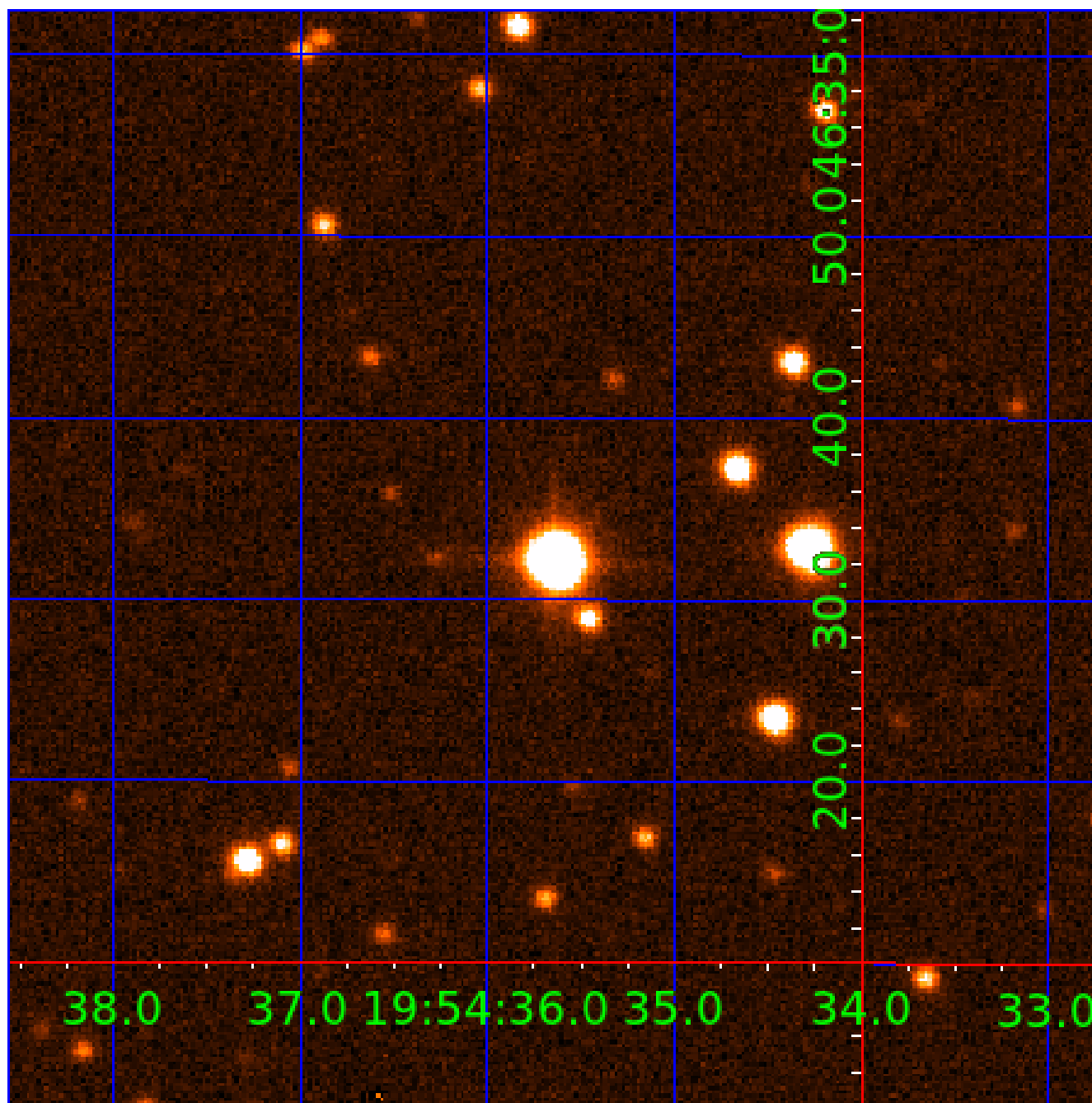


Q16 no OOT image



UKIRT Image

Declination



KIC 009790034

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})
009790034-01	OBS	No	5.141290	134.109675	25.2	14.798	7.6	7.5	1.90	6796	1.20	1851.78
009790034-02	OBS	No	321.122579	294.553475	151.7	8.462	9.6	6.0	1.90	6796	2.72	7.47
009790034-03	OBS	No	5.141487	131.903003	20.6	15.479	8.1	6.8	1.90	6796	0.96	1851.69
009790034-05	OBS	No	352.049805	140.832103	152.6	12.000	11.0	-1.0	1.90	6796	2.37	6.61
009790034-06	OBS	No	44.512947	154.941981	54.6	13.890	7.3	3.9	1.90	6796	1.59	104.16

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009790034-01	OBS	FP	0.00	1	0	0	0	LPP_DV
009790034-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—INCONSISTENT_TRANS
009790034-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—SAME_NTL_PERIOD
009790034-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
009790034-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_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.

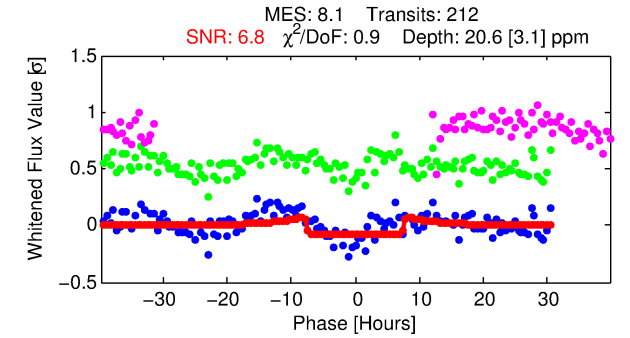
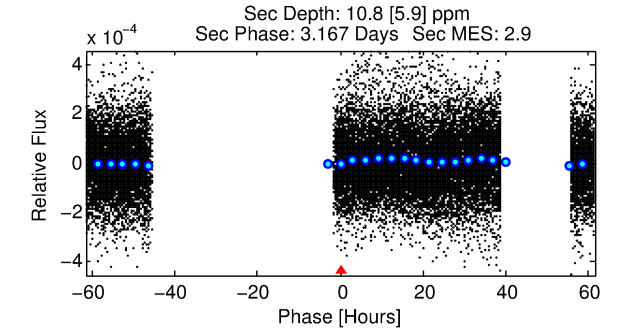
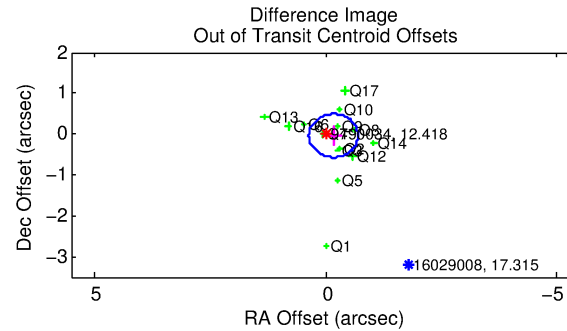
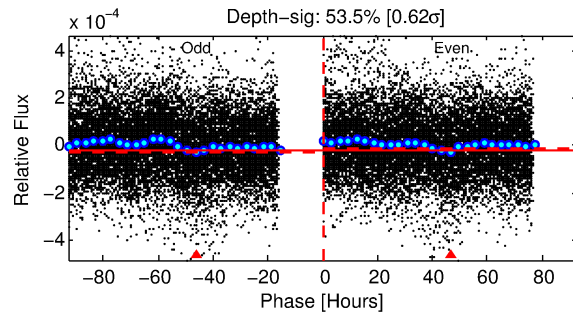
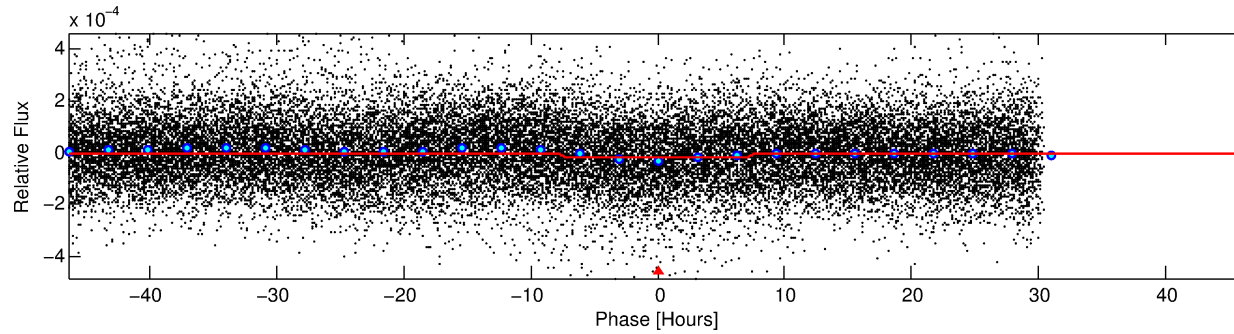
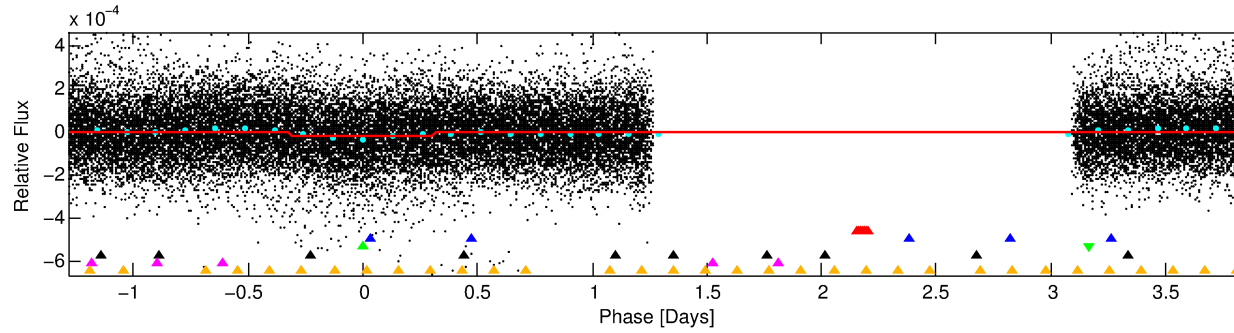
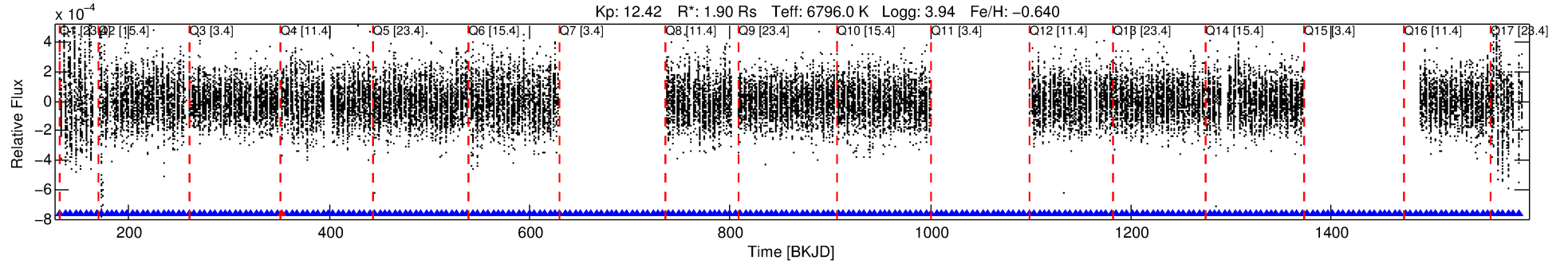
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009790034-03

No Significant Match Found

DV One-Page Summary

KIC: 9790034 Candidate: 3 of 6 Period: 5.141 d



DV Fit Results:

Period = 5.14149 [0.00009] d
Epoch = 131.9030 [0.0114] BKJD
Rp/R* = 0.0046 [0.0009]
a/R* = 1.72 [1.20]
b = 0.82 [0.42]
Seff = 1851.69 [926.72]
Teq = 1673 [209] K
Rp = 0.96 [0.37] Re
a = 0.0612 [0.0188] AU
Ag = 24.15 [19.96] [1.16 σ]
Teffp = 5733 [980] K [4.05 σ]

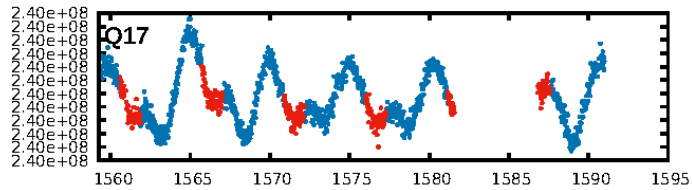
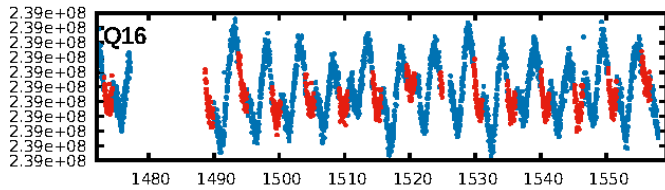
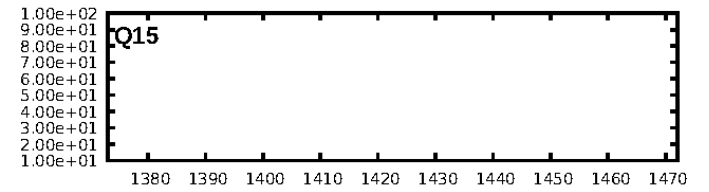
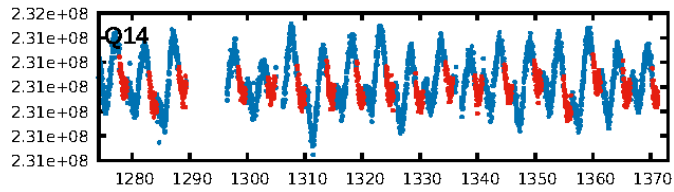
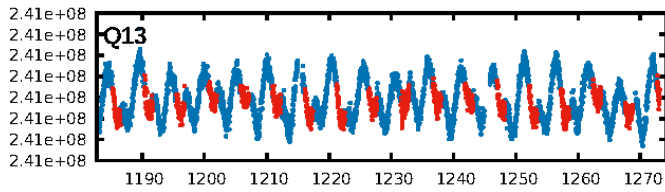
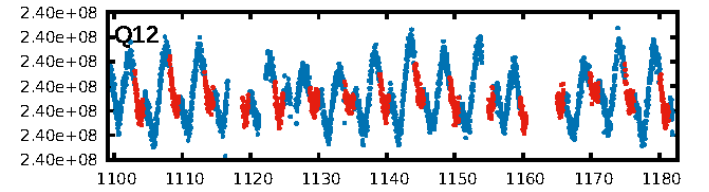
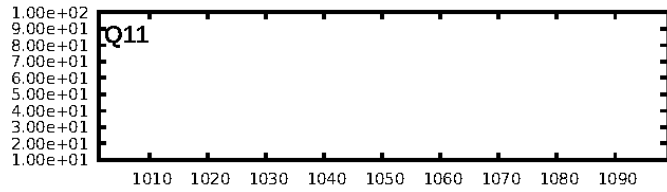
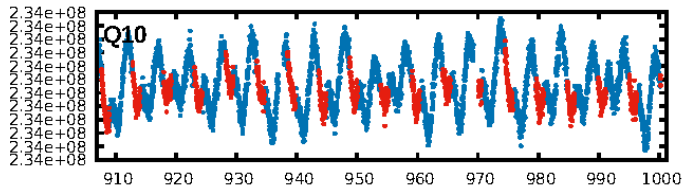
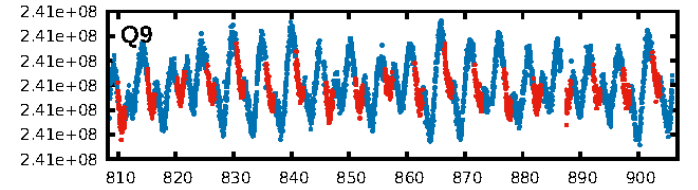
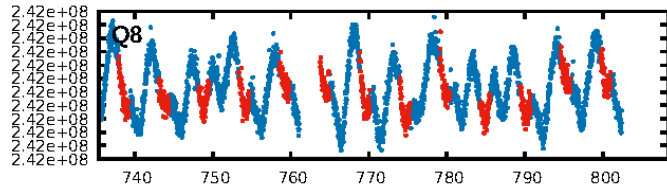
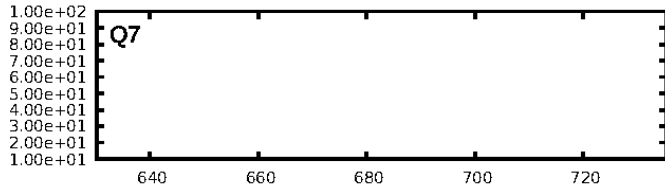
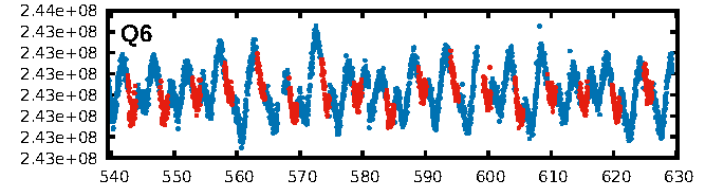
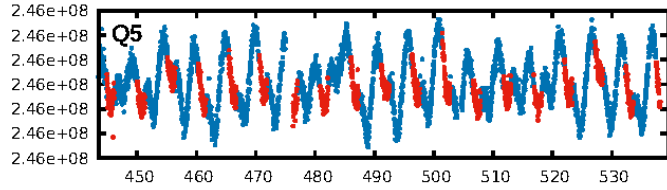
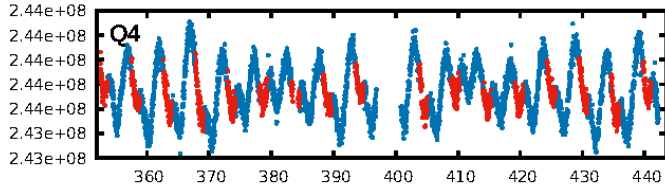
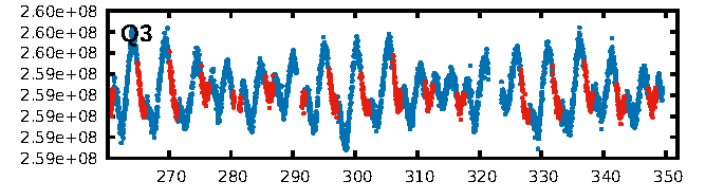
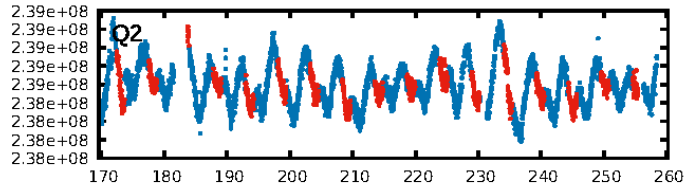
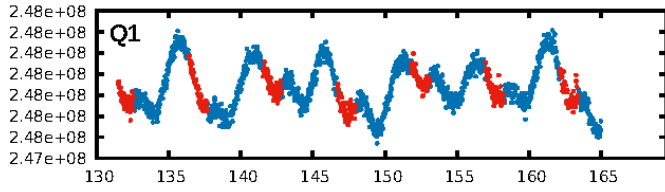
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00 σ]
LongPeriod-sig: 100.0% [45.43 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.84e-11
RollingBand-fgt: 0.99 [198/199]
GhostDiagnostic-chr: 0.862
Centroid-sig: 0.0%
Centroid-so: 3.092 arcsec [2.57 σ]
OotOffset-rm: 0.170 arcsec [0.96 σ]
KicOffset-rm: 0.310 arcsec [1.56 σ]
OotOffset-st: 4/1/4/5 [14]
KicOffset-st: 4/1/4/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

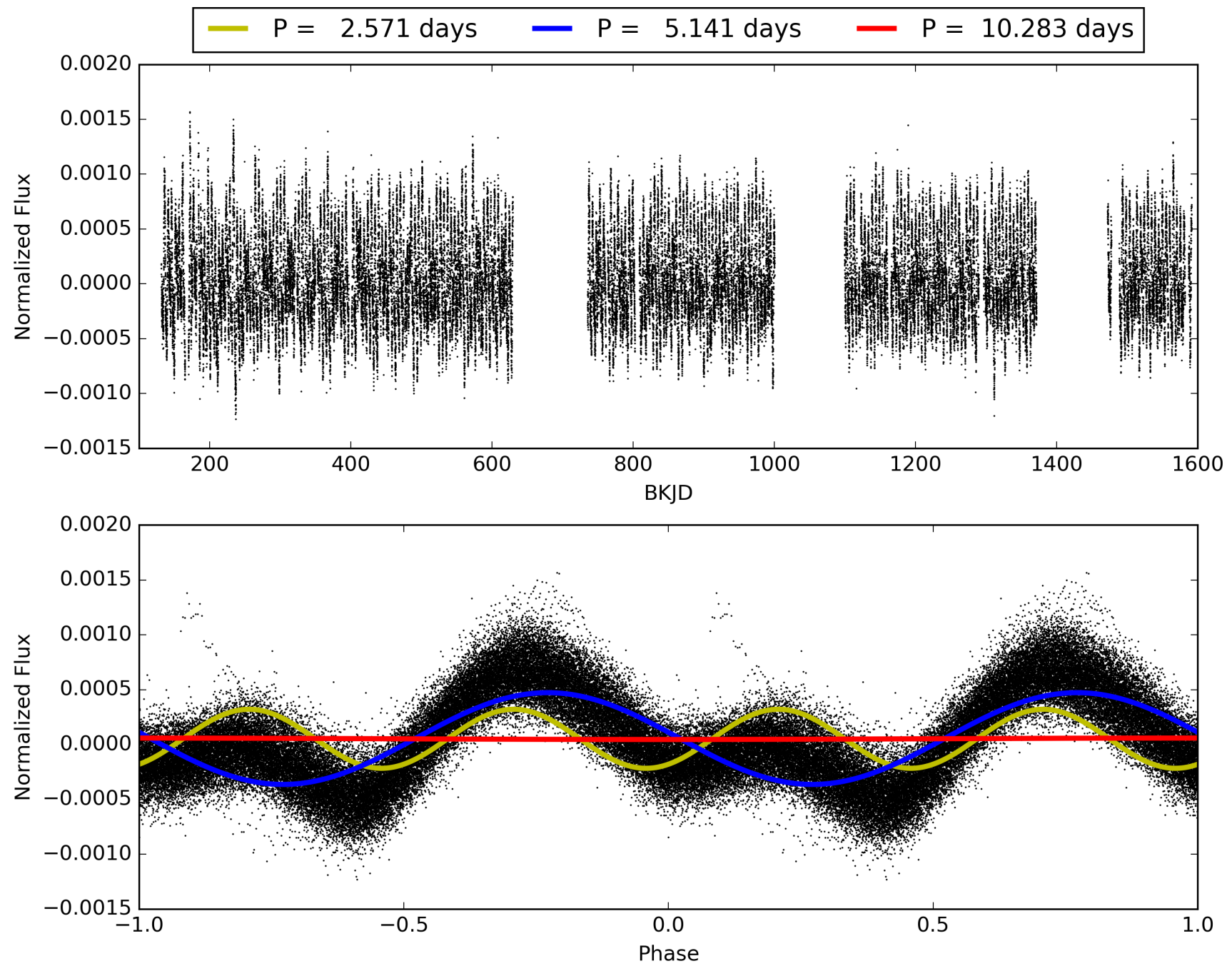
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:29:52 Z

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

TCE 009790034-03, PDC Light Curves

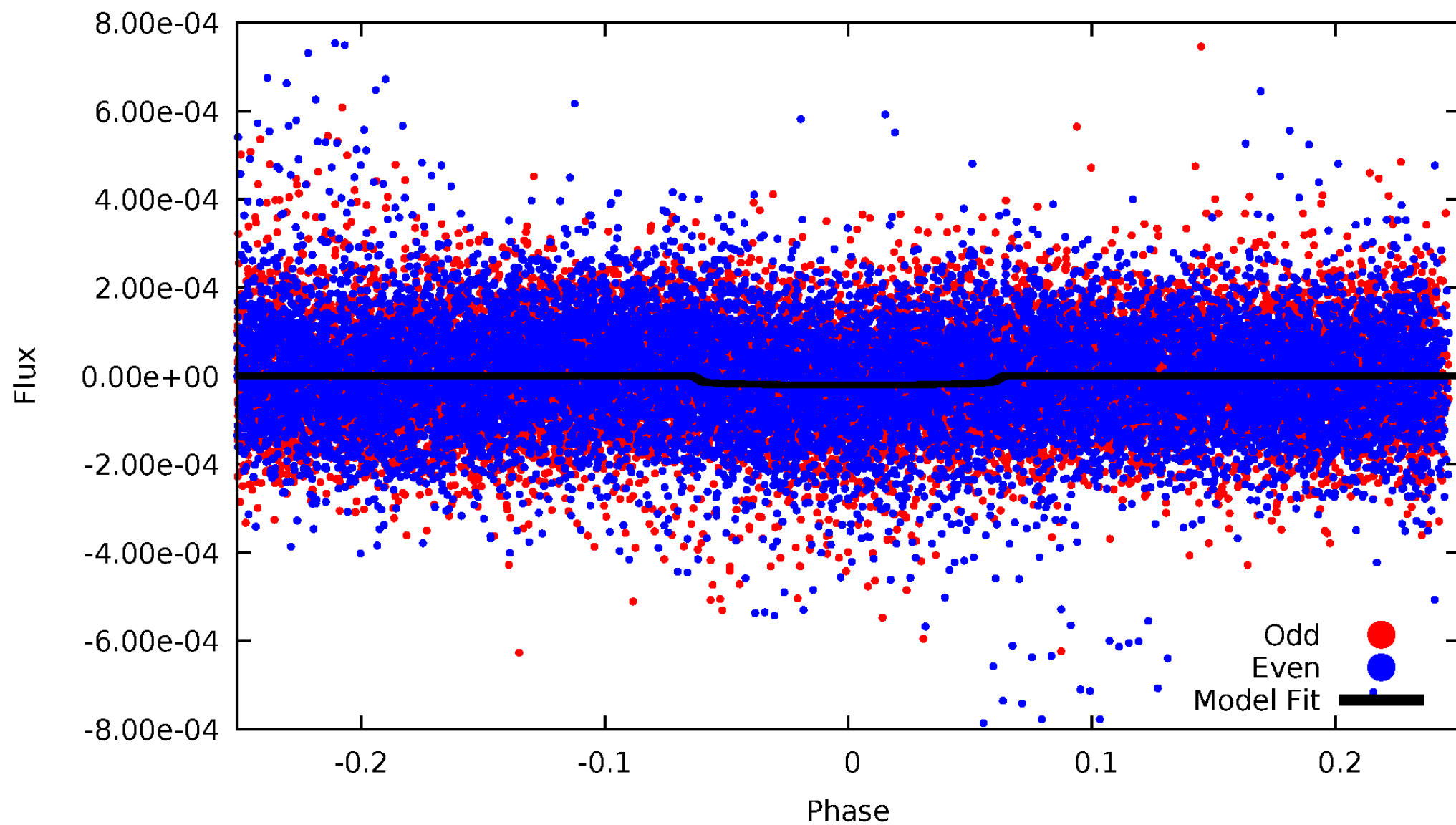


TCE 009790034-03



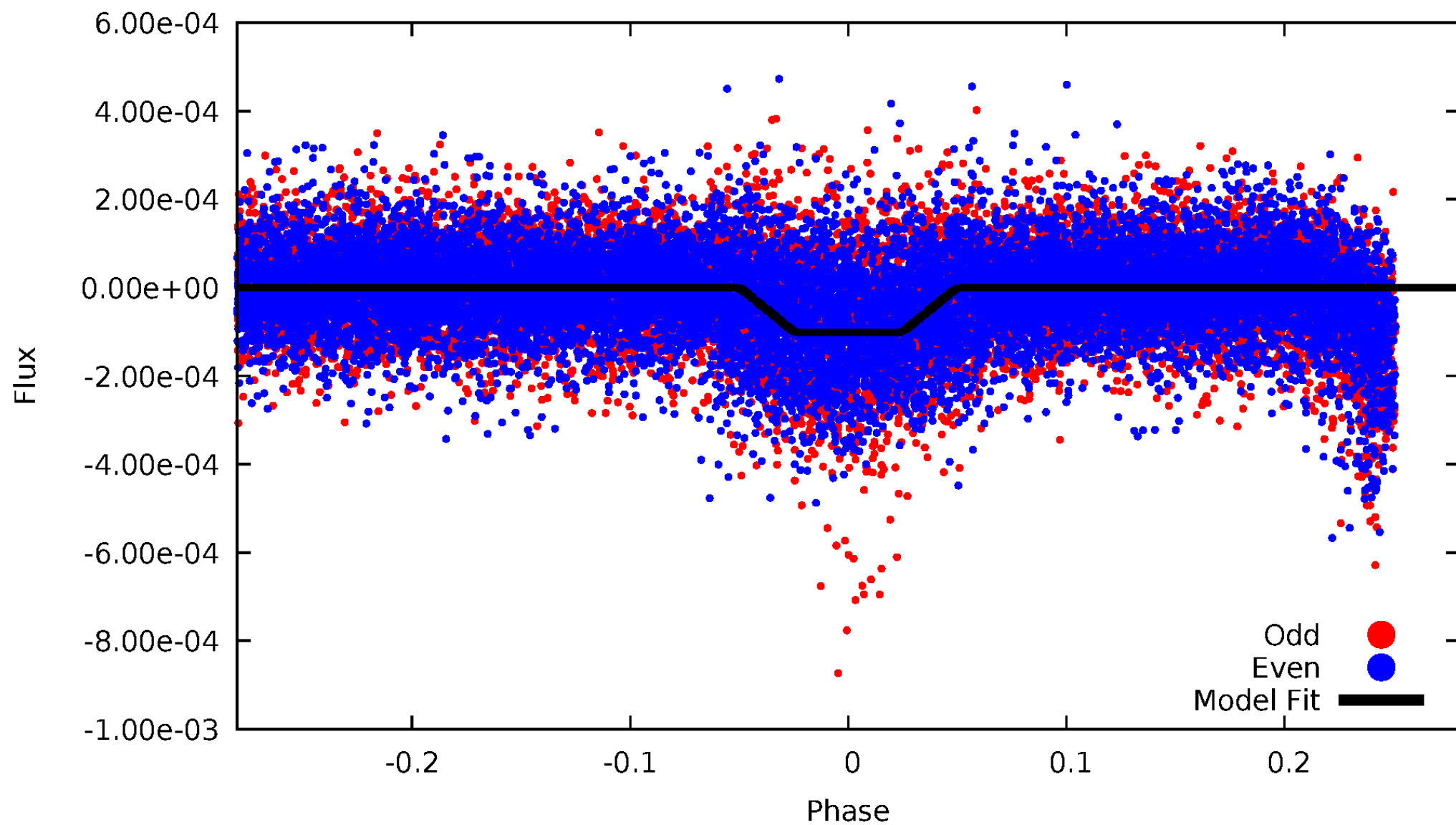
DV Odd/Even

TCE 009790034-03

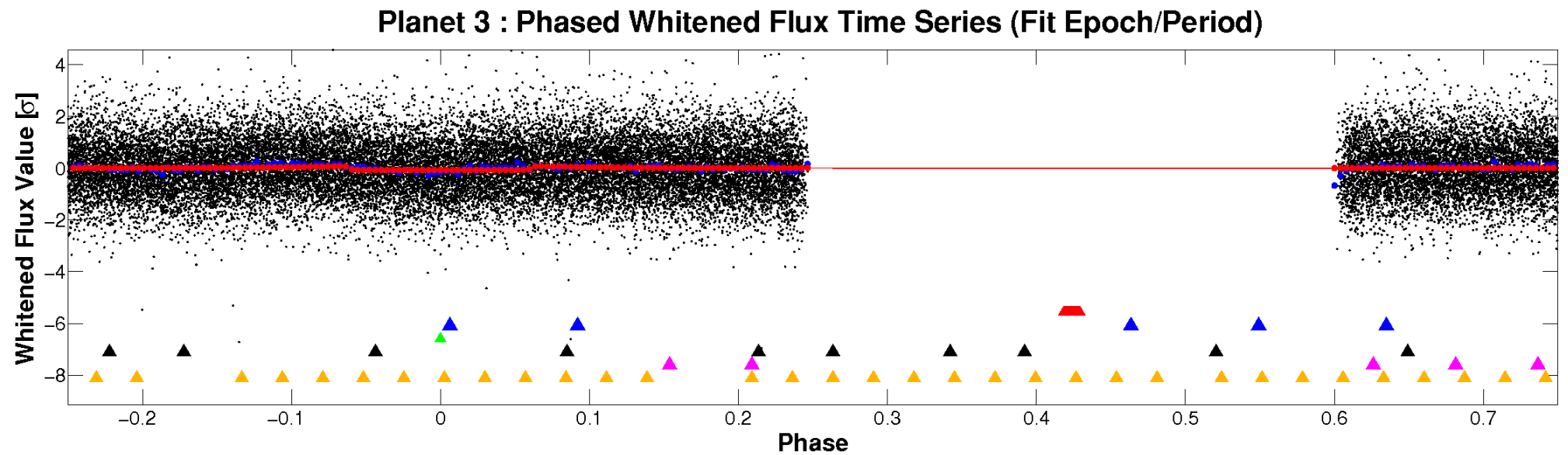
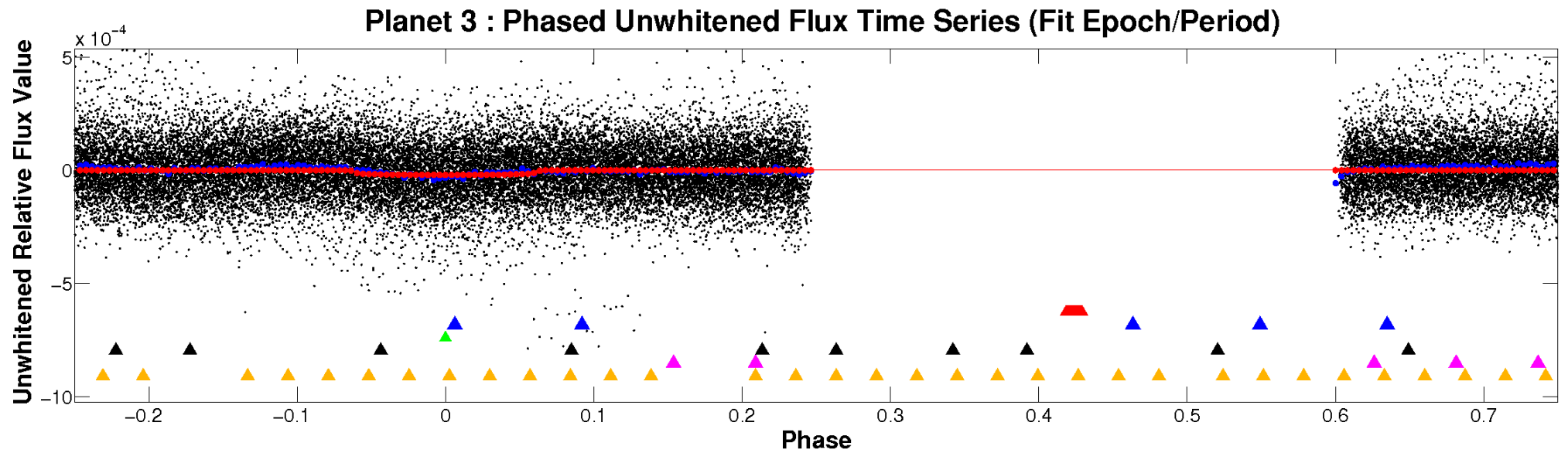


ALT Odd/Even

TCE 009790034-03

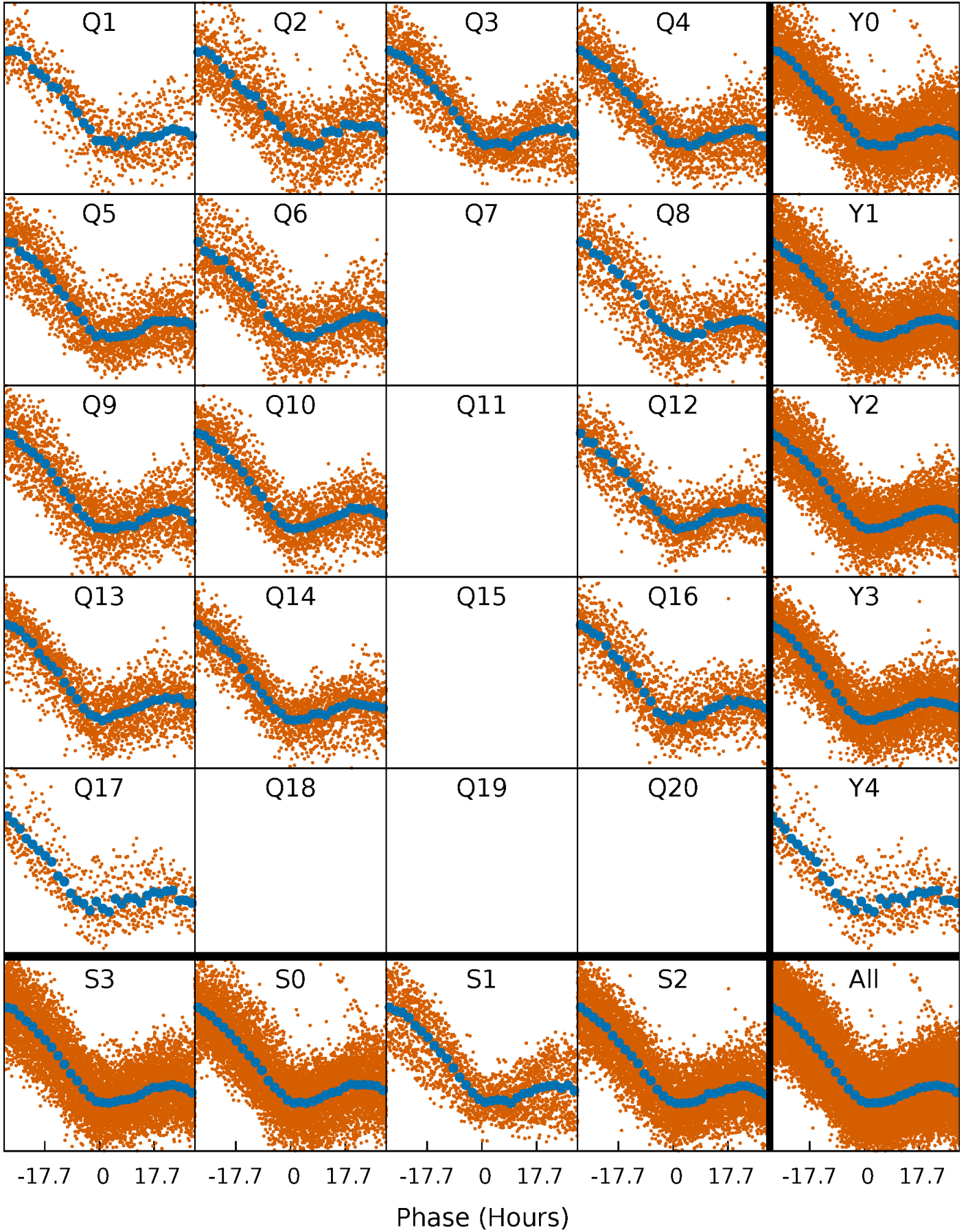


Non-Whitened Vs. Whitened Light Curve



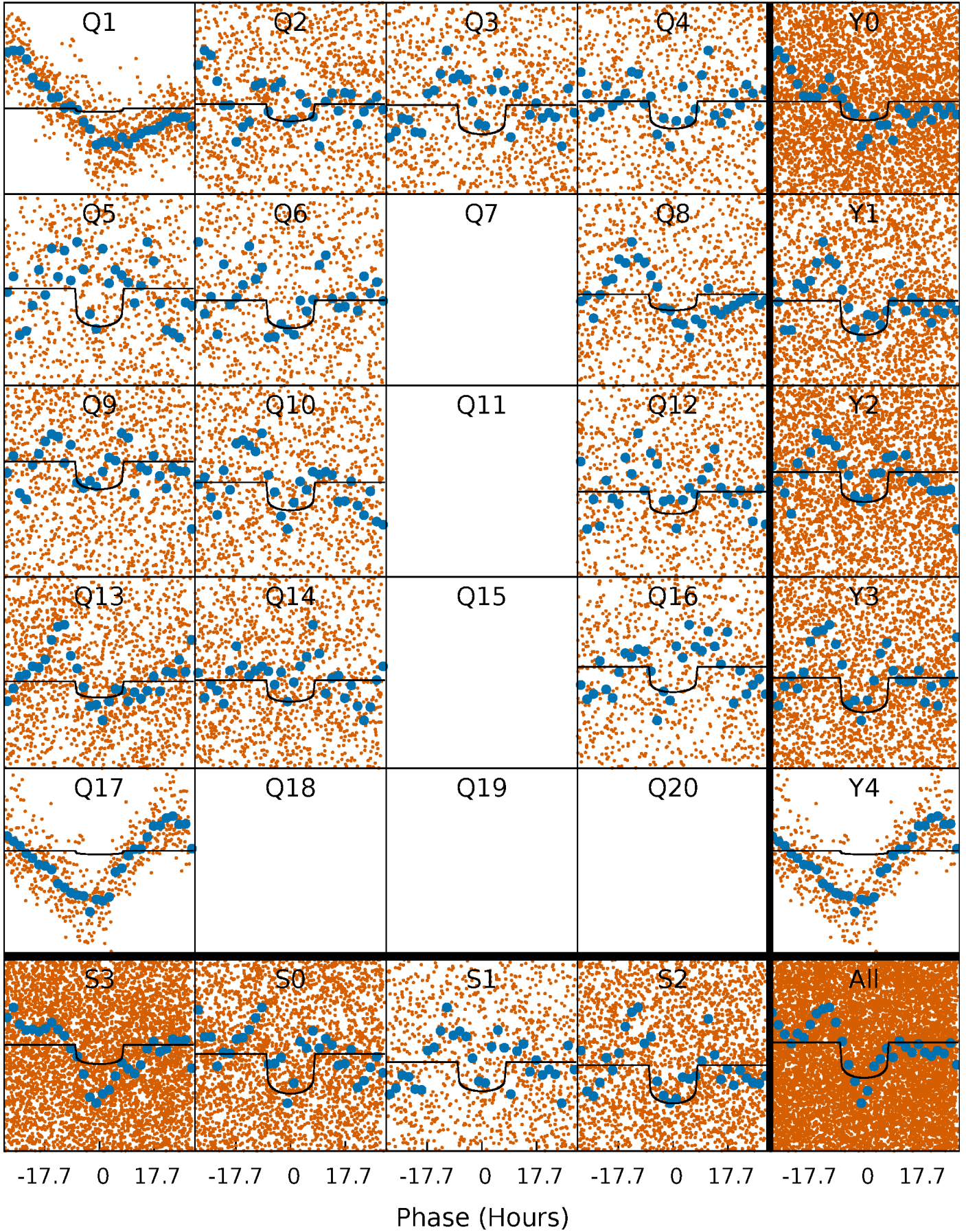
PDC Quarter-Phased Transit Curves

TCE 009790034-03 P= 5.141487 Days $T_0=131.903003$ (BKJD)



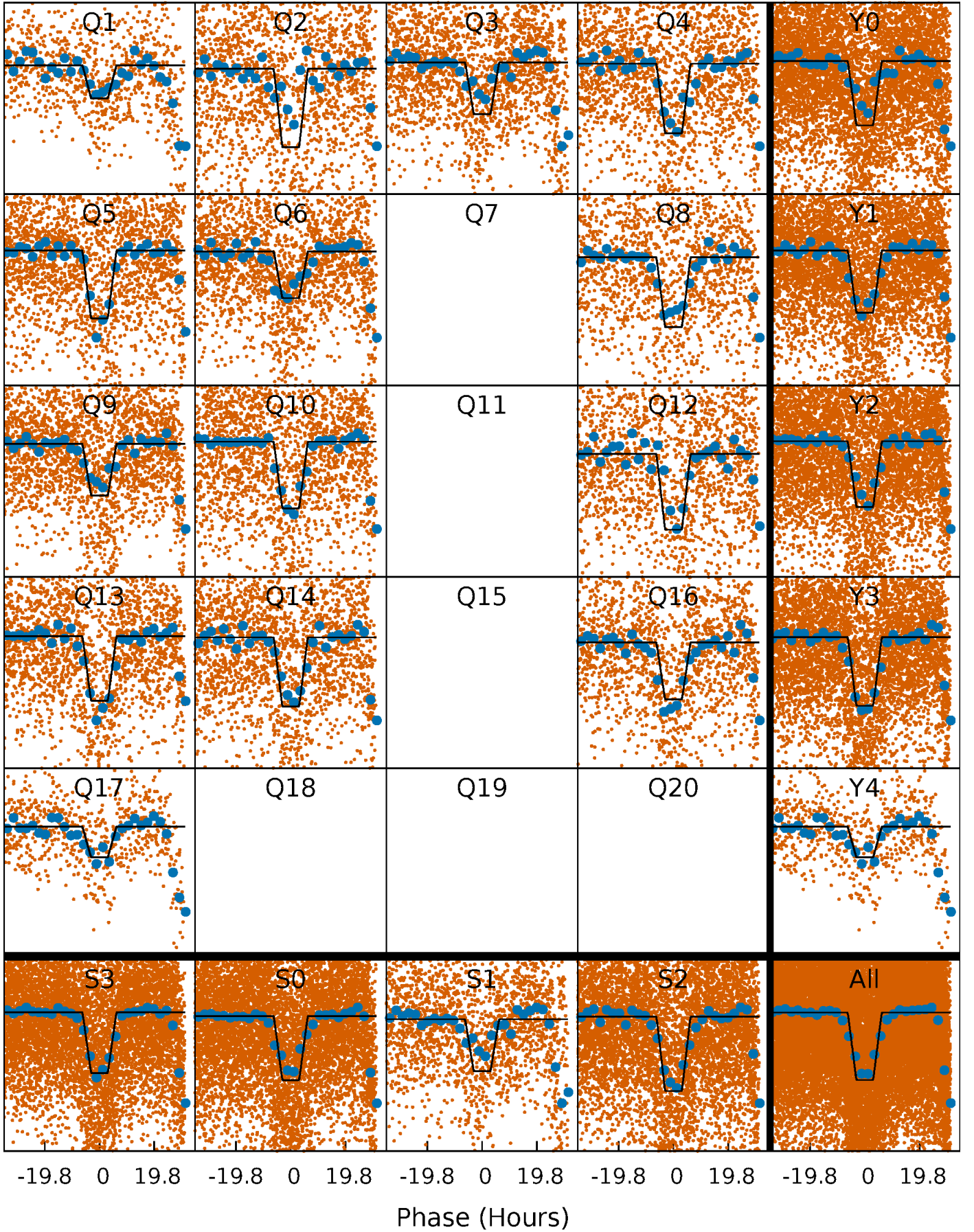
DV Quarter-Phased Transit Curves

TCE 009790034-03 P= 5.141487 Days $T_0=131.903003$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

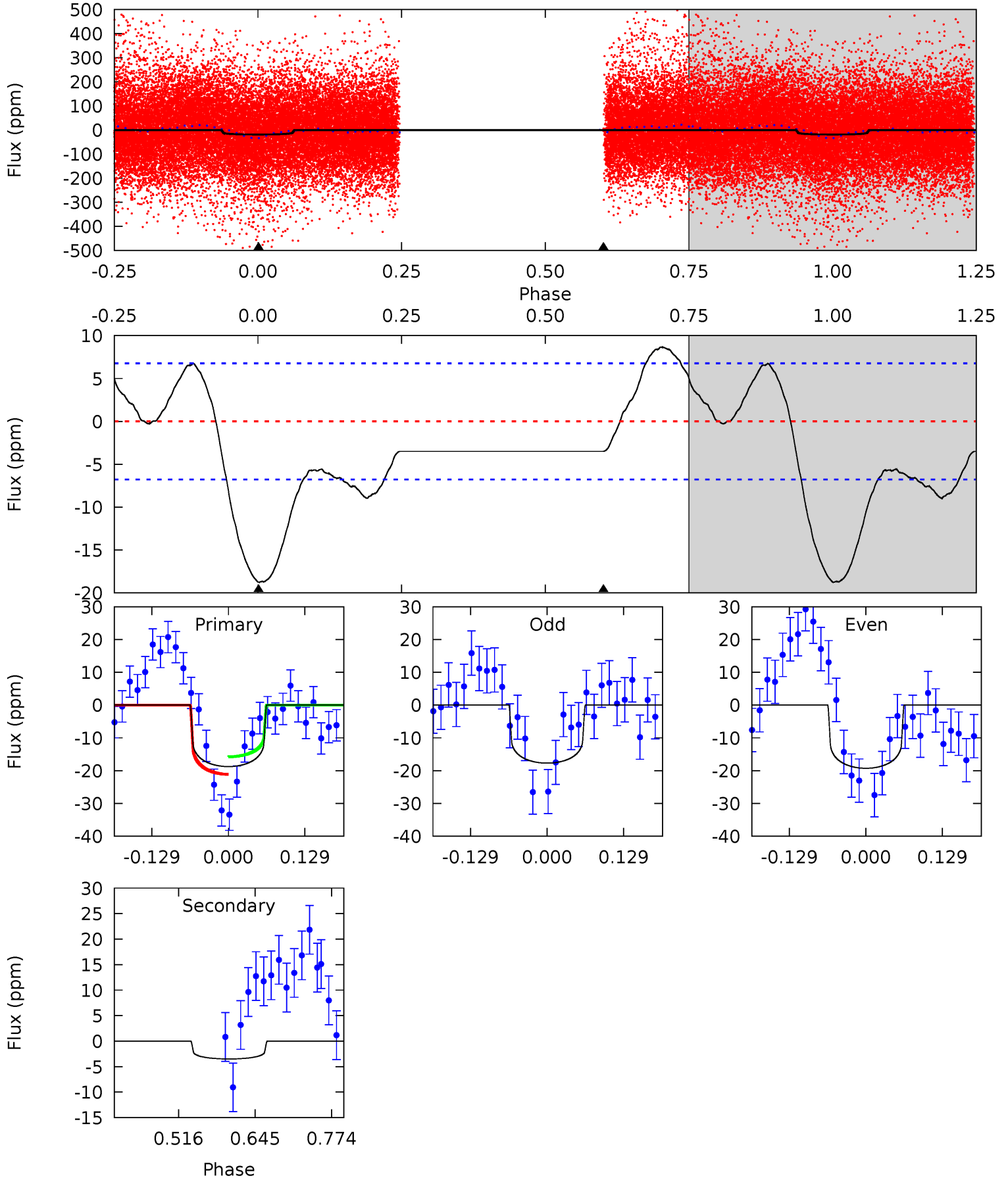
TCE 009790034-03 P= 5.141320 Days $T_0=131.883272$ (BKJD)



DV Model-Shift Uniqueness Test

009790034-03, P = 5.141487 Days, E = 126.761516 Days

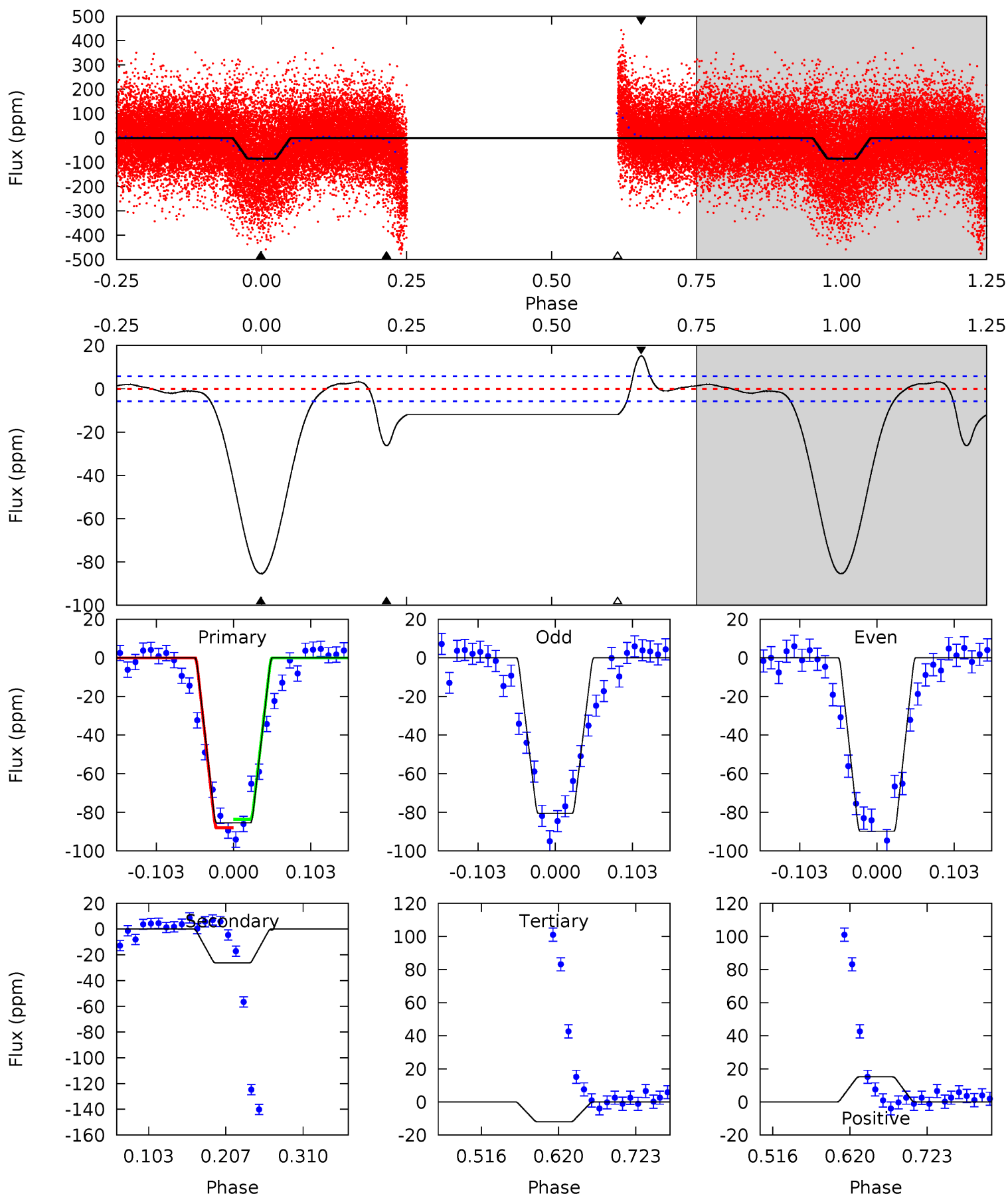
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.5	2.33	0	0	4.51	1.52	3.49	12.5	12.5	2.33	2.33	0.53	0.97	0.32	1.76



Alt Model-Shift Uniqueness Test

009790034-03, P = 5.141320 Days, E = 126.741952 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
68.1	20.9	9.53	12.1	4.56	1.63	3.66	58.5	56.0	11.4	8.86	3.69	1.00	0.15	1.81



Stellar Parameters For KIC 009790034

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6796^{+183}_{-224}	$3.941^{+0.280}_{-0.100}$	$-0.640^{+0.300}_{-0.300}$	$1.904^{+0.386}_{-0.628}$	$1.155^{+0.193}_{-0.158}$	$0.236^{+0.428}_{-0.086}$
	+3%/-3%	+7%/-3%	+47%/-47%	+20%/-33%	+17%/-14%	+182%/-36%
Source	PHO1	FLK73	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 009790034-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-3 ± 2	$0.92^{+0.23}_{-0.23}$	2285^{+148}_{-192}	4410^{+561}_{-516}	$8.195^{+8.410}_{-3.968}$
Alt.	-26 ± 1	$2.00^{+0.32}_{-0.37}$	2290^{+148}_{-192}	4922^{+243}_{-216}	14^{+6}_{-3}

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

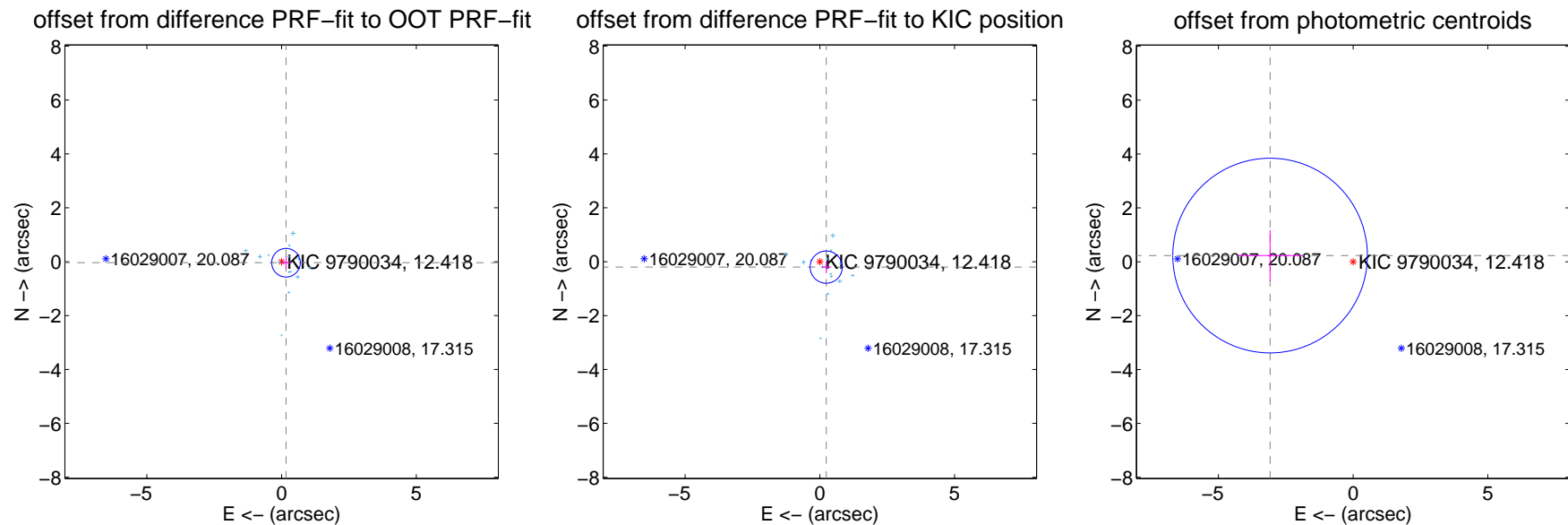
DV Centroid Data

Supplemental centroid analysis for 009790034-03. Kepler magnitude: 12.42. Transit SNR 6.82

There are 14 quarters with good PRF difference image offsets

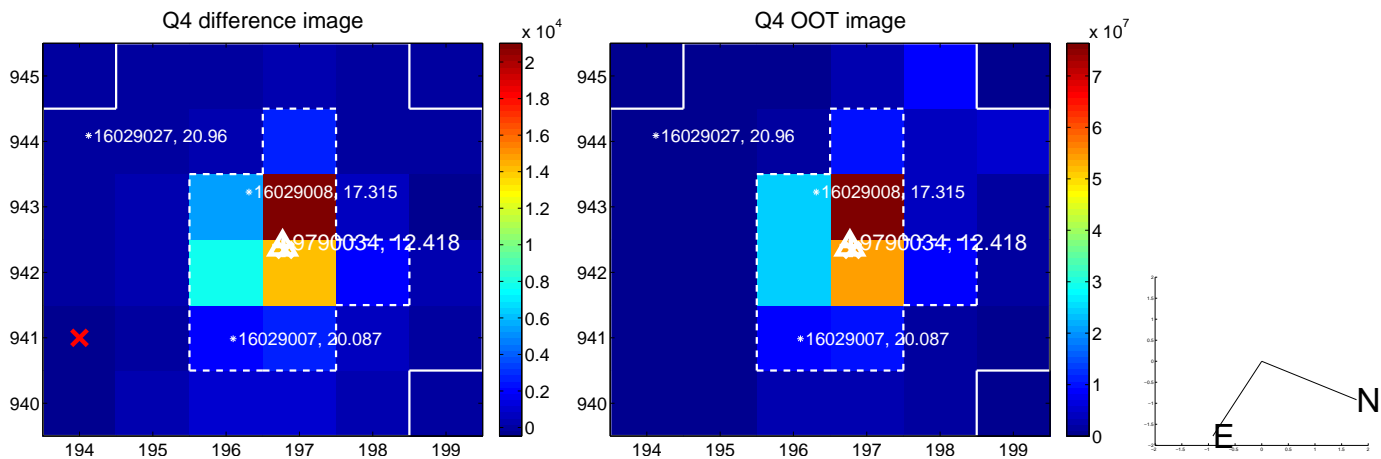
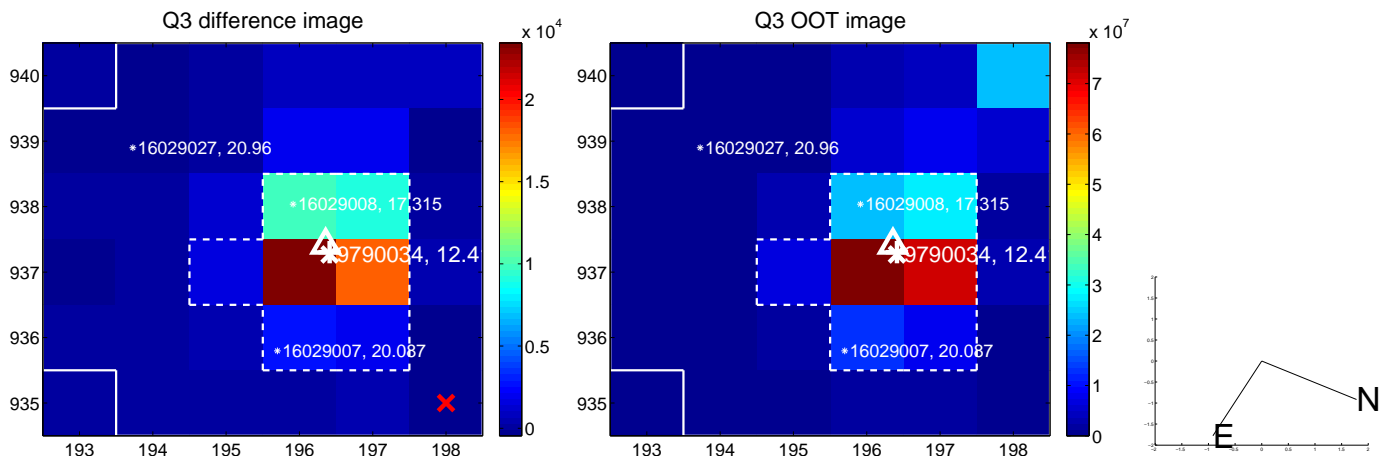
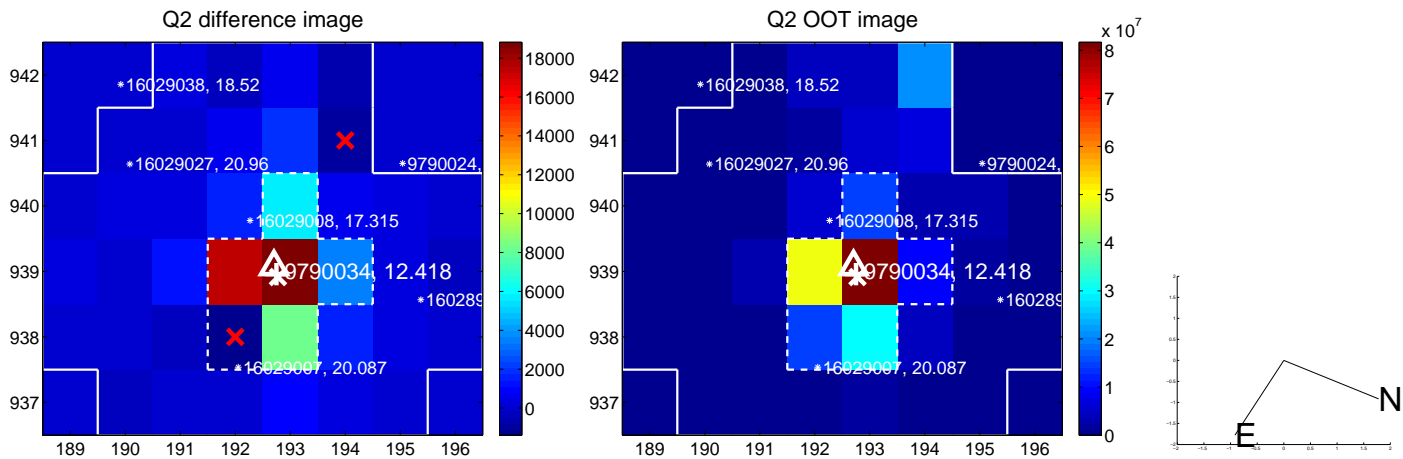
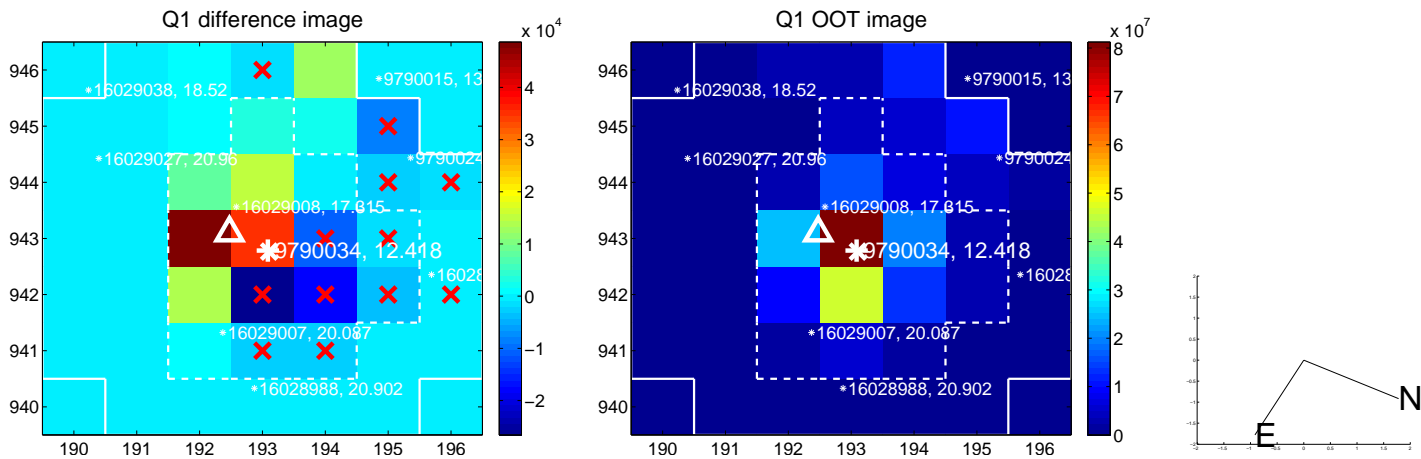
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.170 ± 0.177	0.96	-0.165 ± 0.169	-0.038 ± 0.238
PRF-fit source offset from KIC position	0.310 ± 0.199	1.56	-0.236 ± 0.180	-0.201 ± 0.227
photometric centroid source offset	3.09 ± 1.20	2.57	3.08 ± 1.21	0.23 ± 0.95

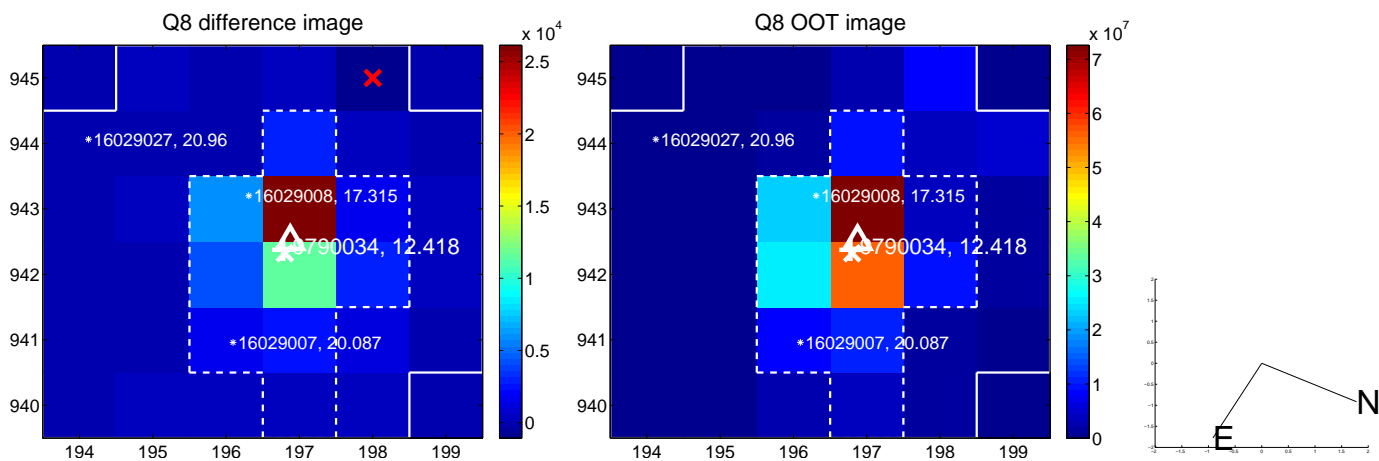
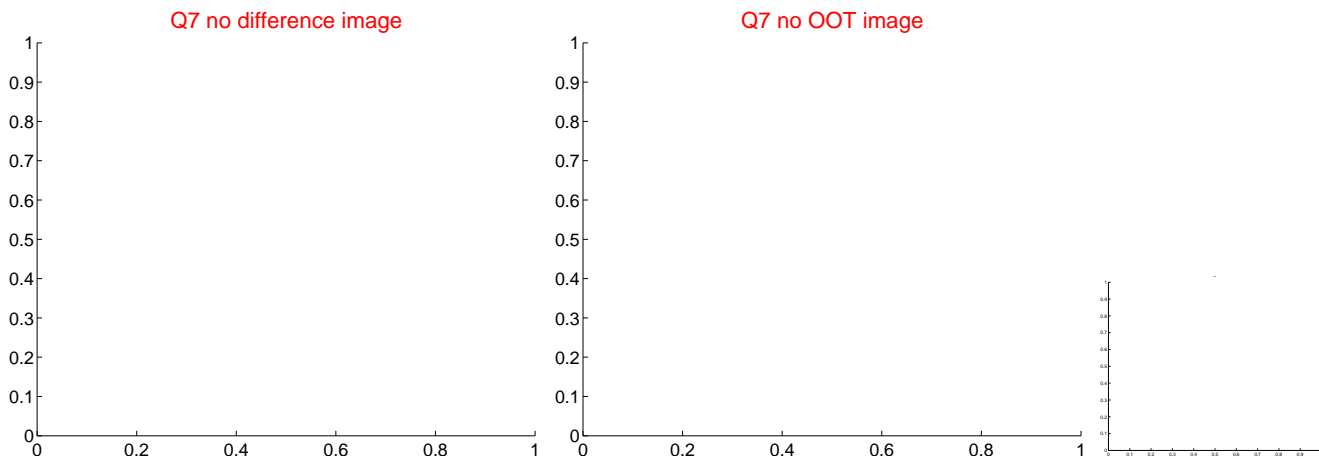
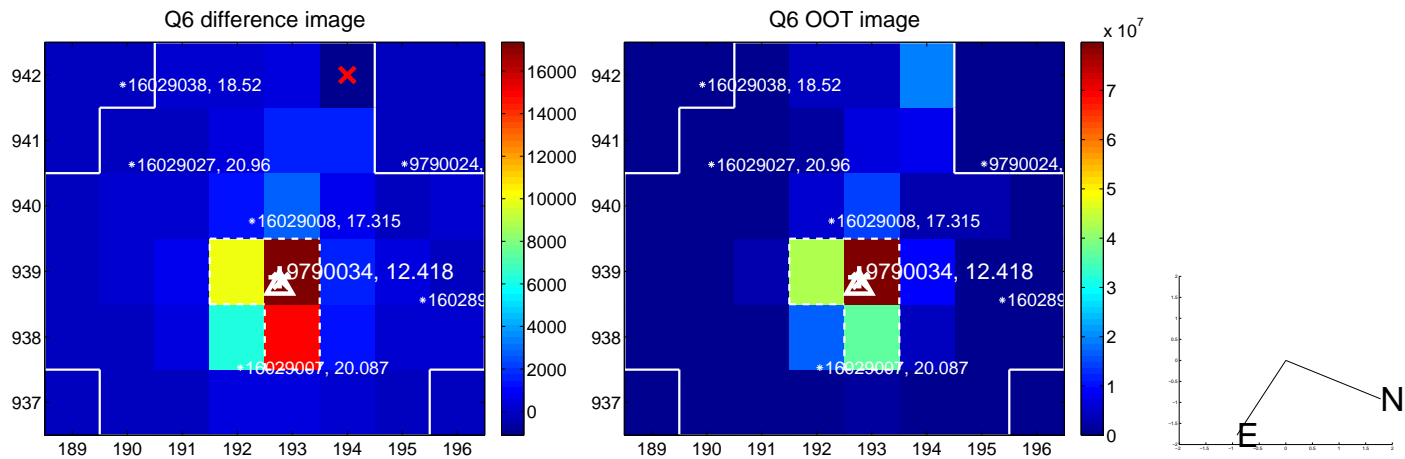
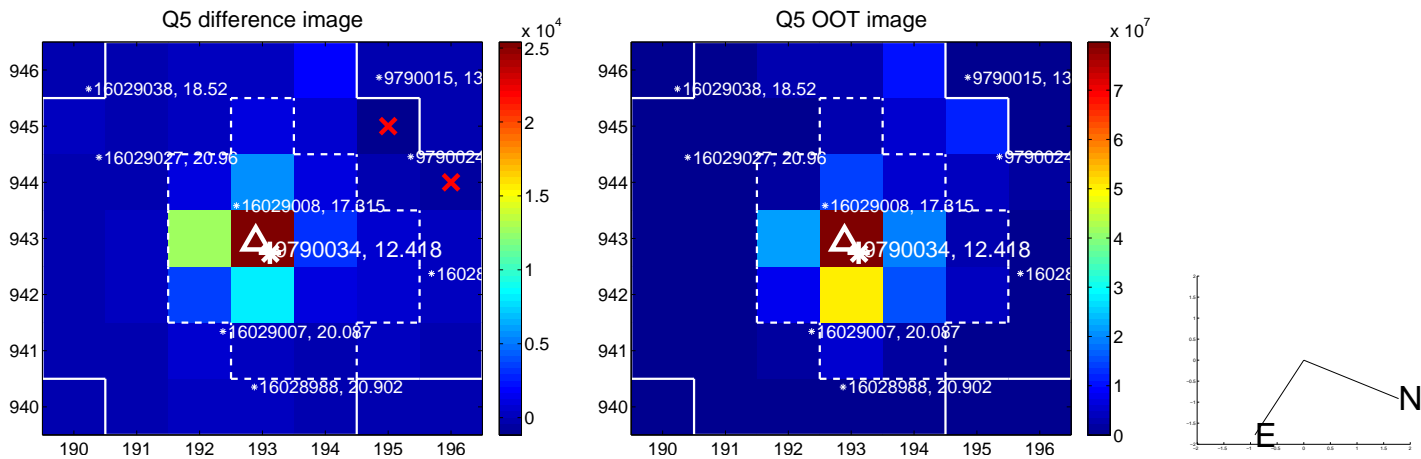


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

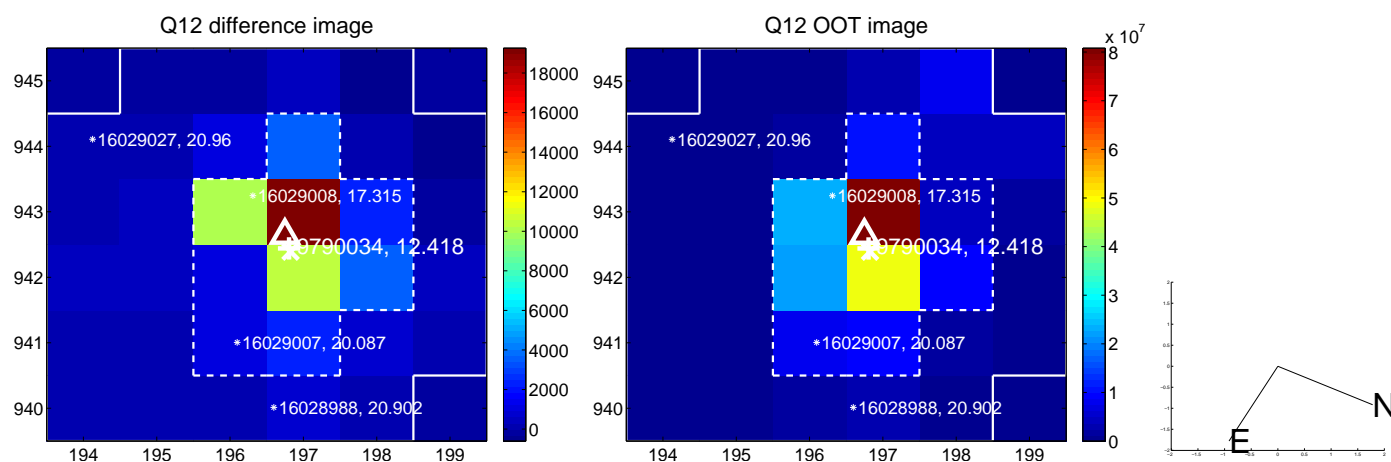
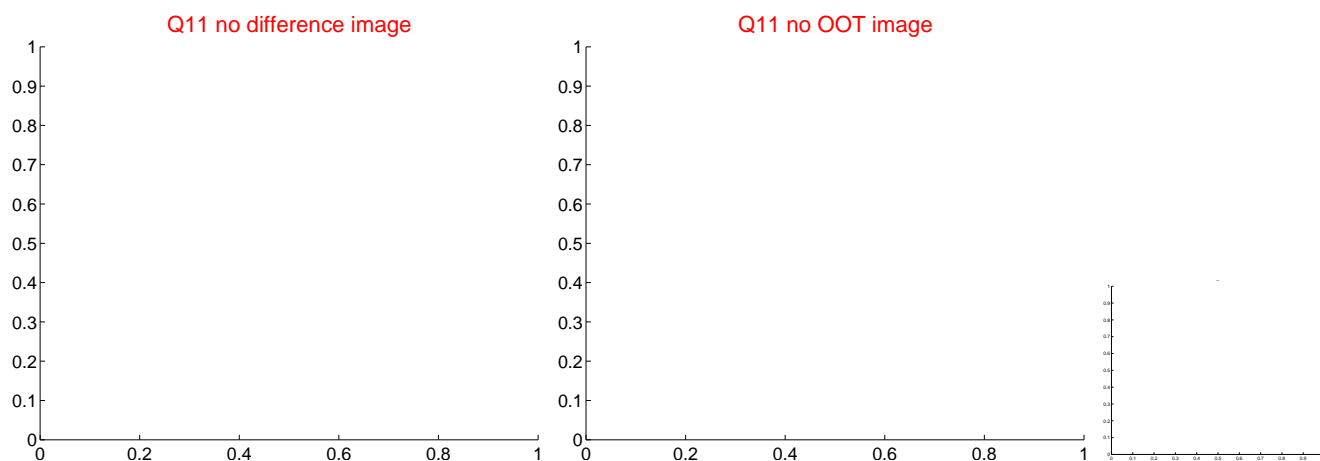
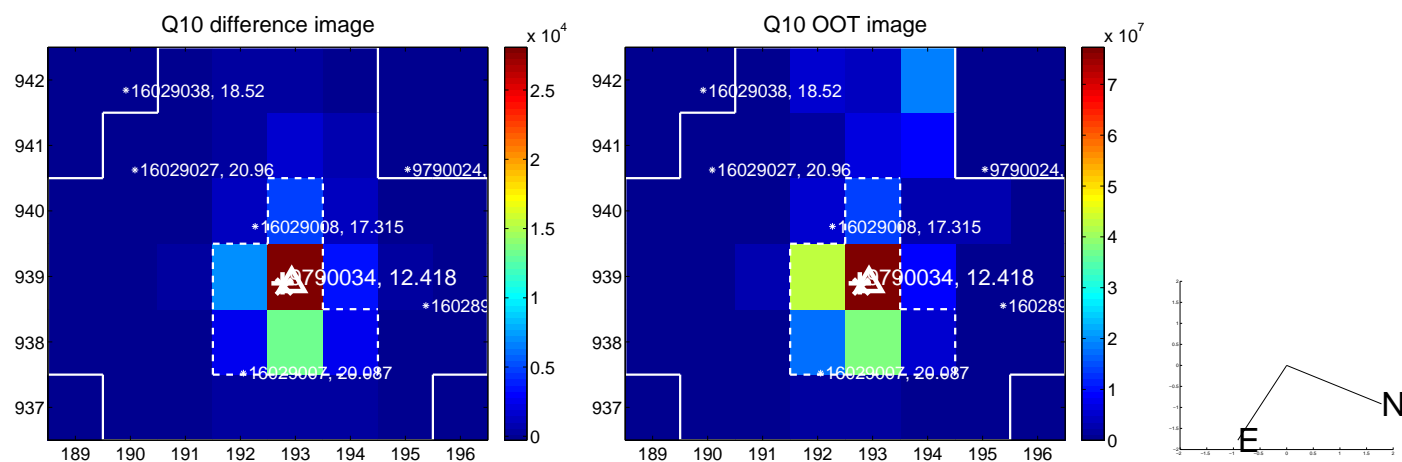
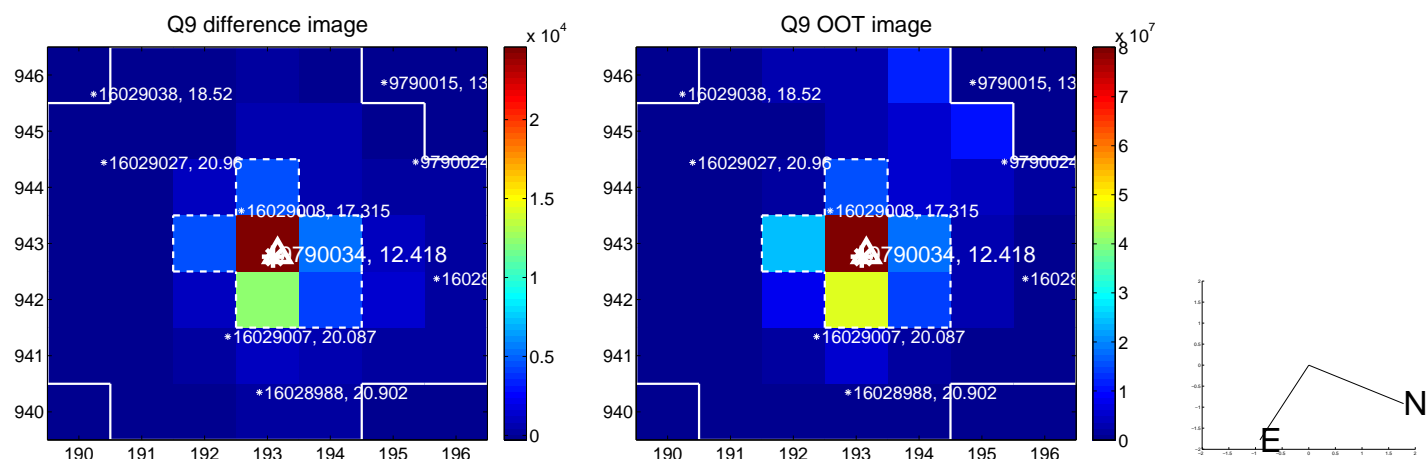
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



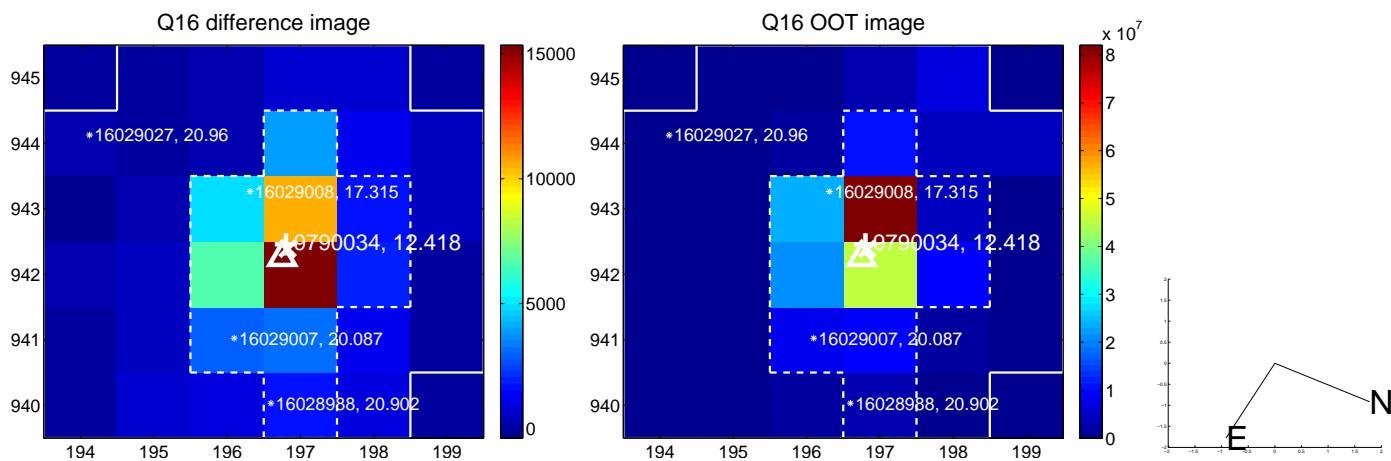
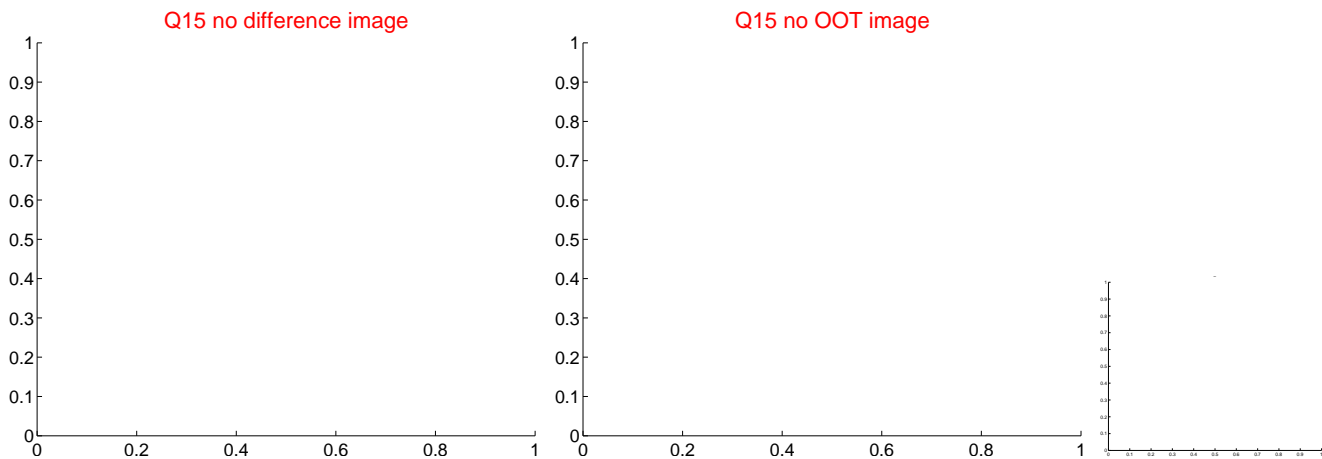
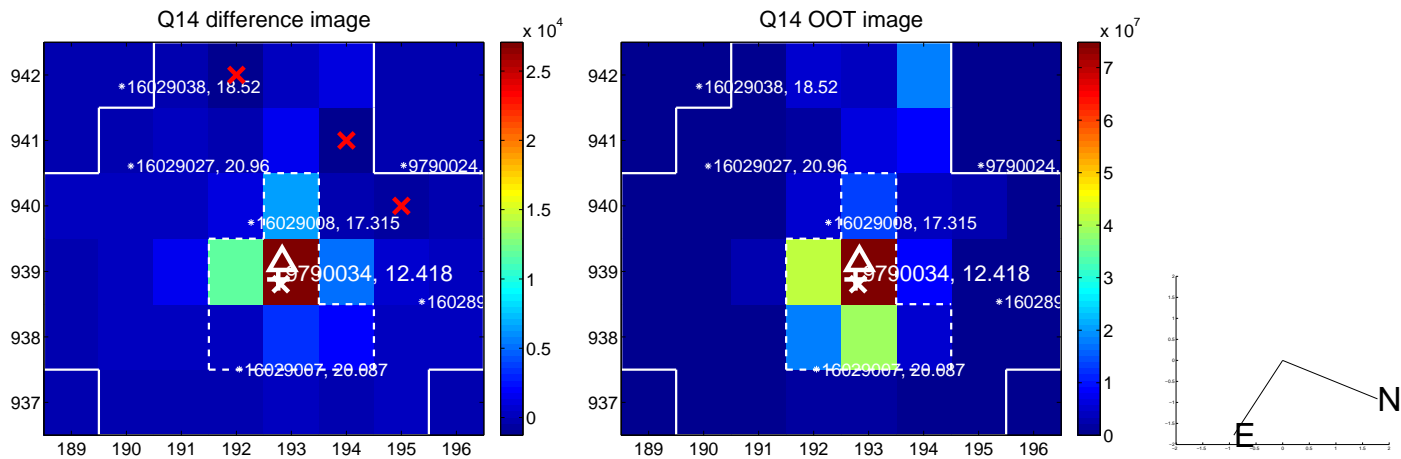
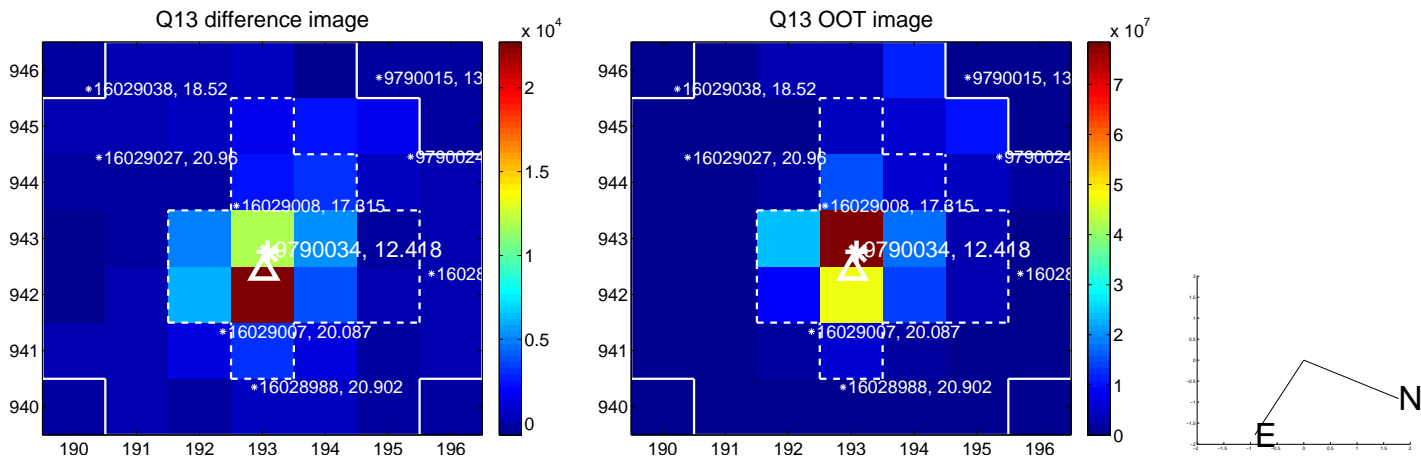
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



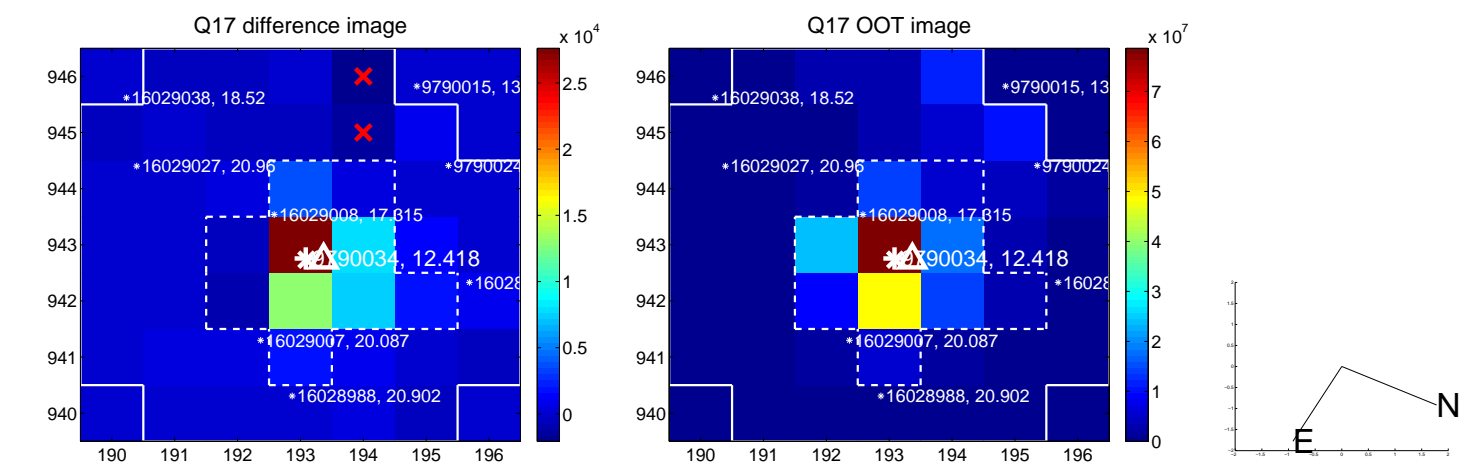
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



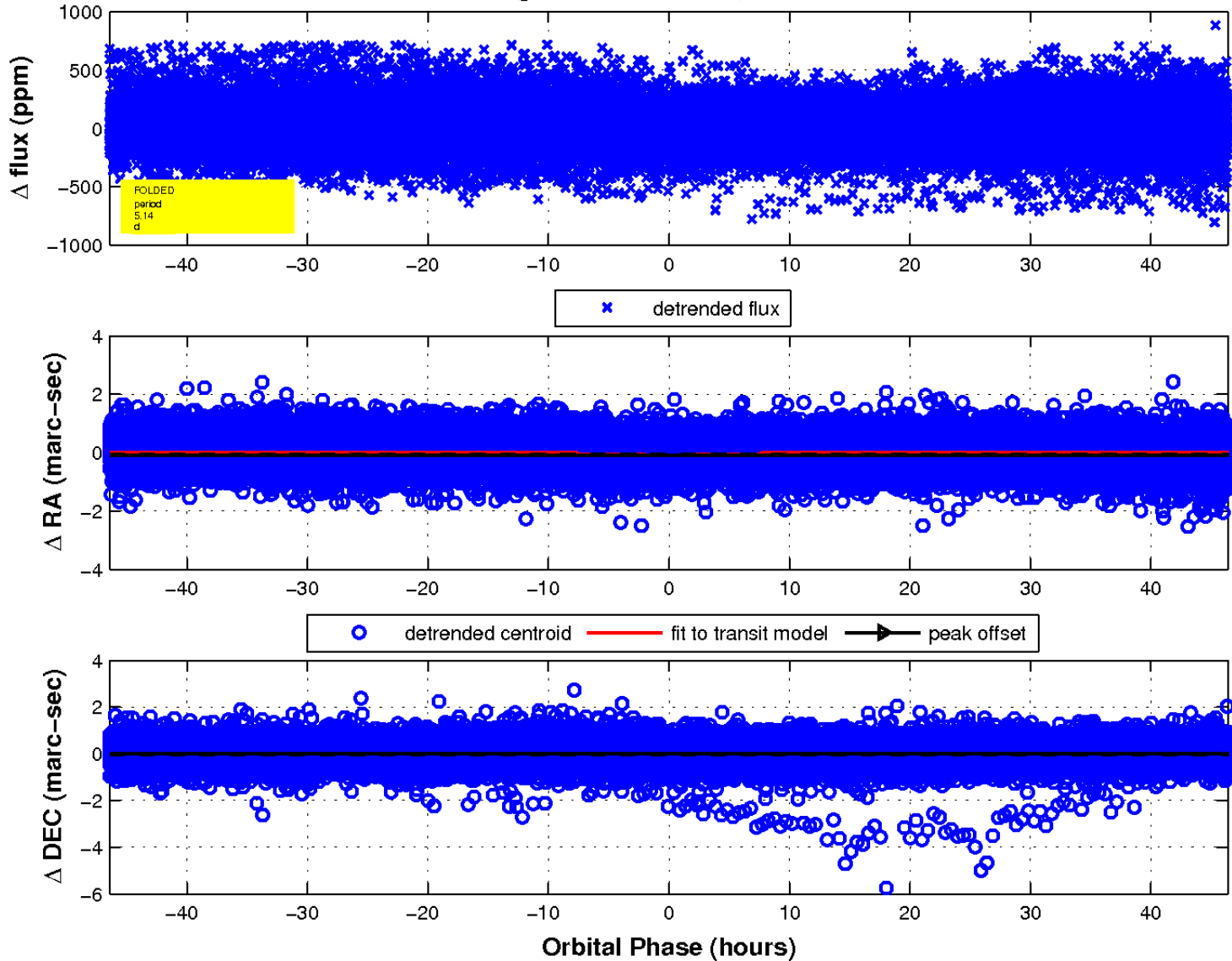
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

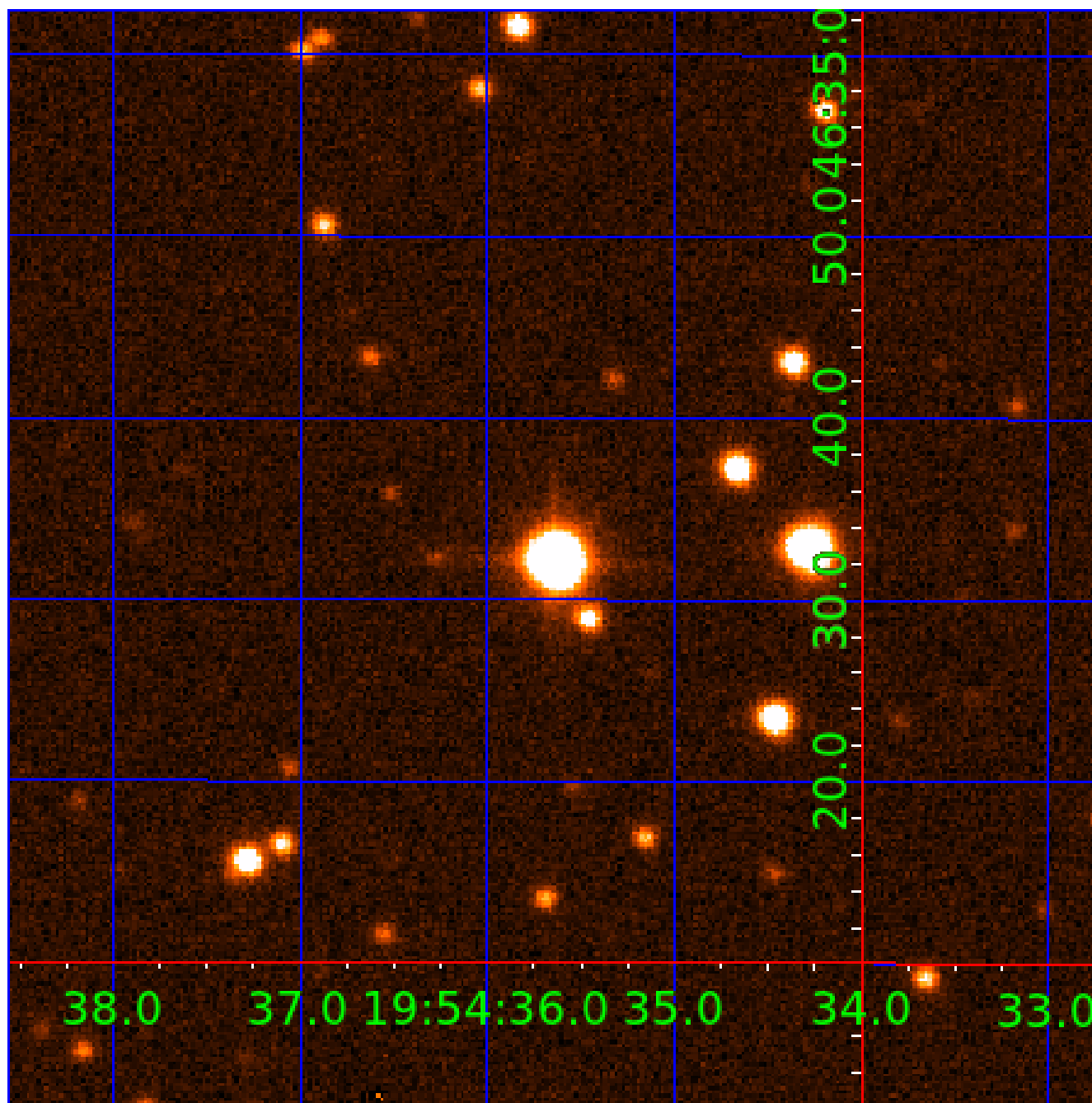


fluxWeightedCentroids, Planet 3 of 6



UKIRT Image

Declination



KIC 009790034

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})
009790034-01	OBS	No	5.141290	134.109675	25.2	14.798	7.6	7.5	1.90	6796	1.20	1851.78
009790034-02	OBS	No	321.122579	294.553475	151.7	8.462	9.6	6.0	1.90	6796	2.72	7.47
009790034-03	OBS	No	5.141487	131.903003	20.6	15.479	8.1	6.8	1.90	6796	0.96	1851.69
009790034-05	OBS	No	352.049805	140.832103	152.6	12.000	11.0	-1.0	1.90	6796	2.37	6.61
009790034-06	OBS	No	44.512947	154.941981	54.6	13.890	7.3	3.9	1.90	6796	1.59	104.16

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009790034-01	OBS	FP	0.00	1	0	0	0	LPP_DV
009790034-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—INCONSISTENT_TRANS
009790034-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—SAME_NTL_PERIOD
009790034-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
009790034-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_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.

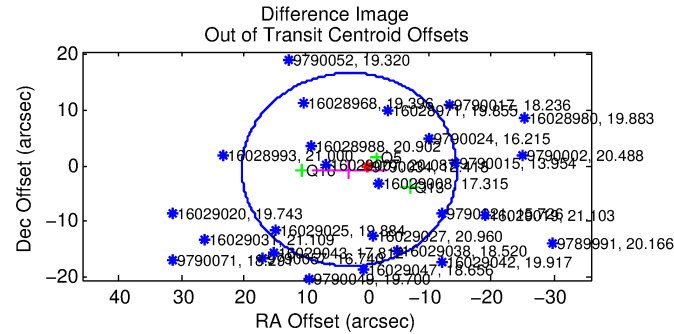
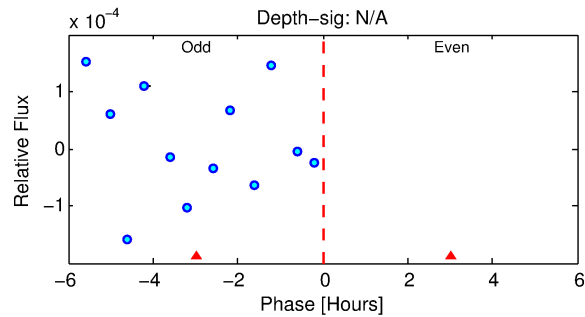
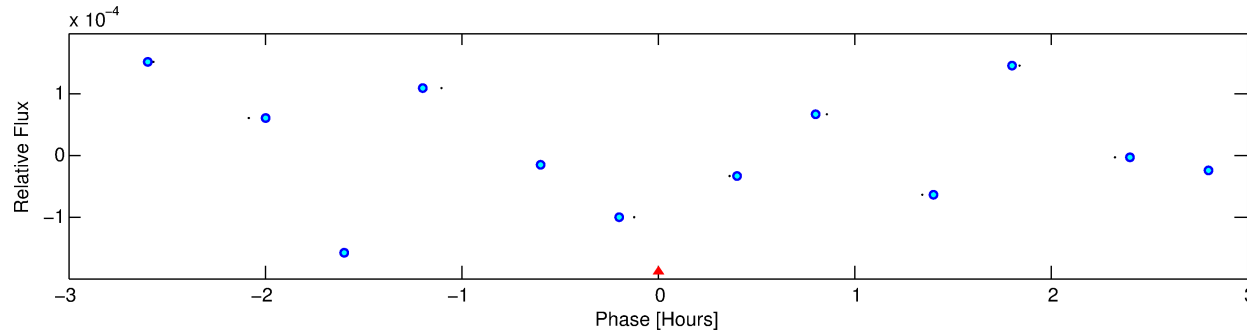
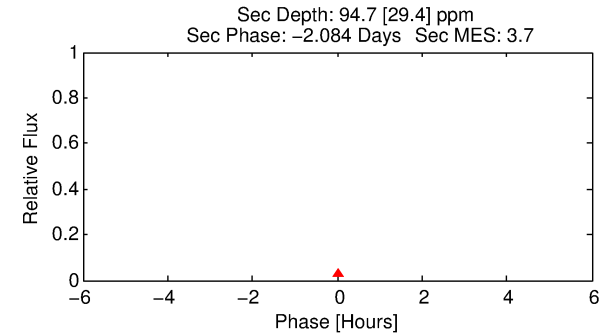
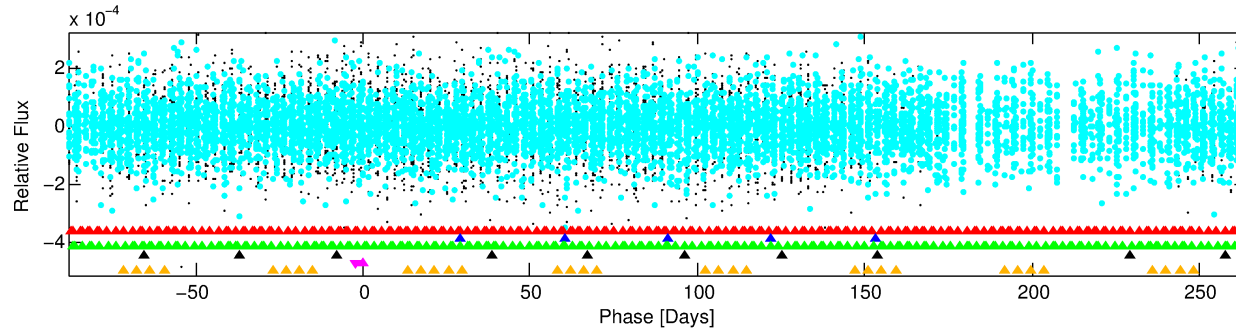
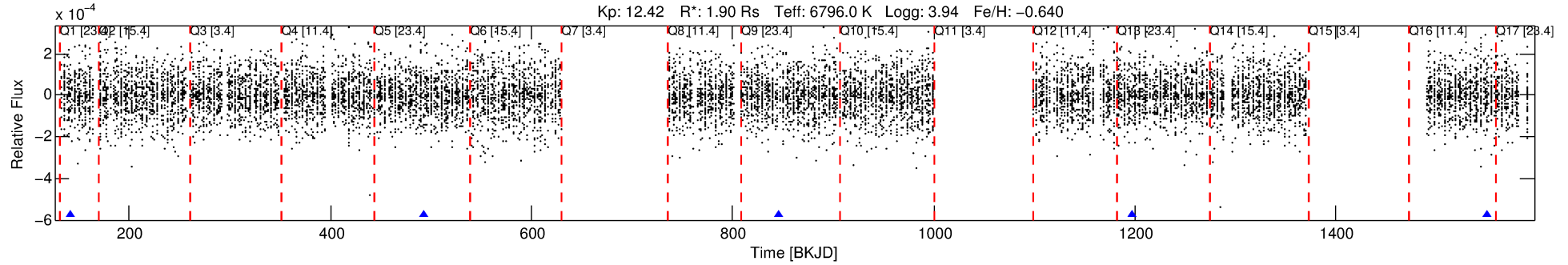
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009790034-05

No Significant Match Found

DV One-Page Summary

KIC: 9790034 Candidate: 5 of 6 Period: 352.050 d



TPS TCE Results:

Period = 352.04981 d
Epoch = 140.8321 BKJD

DV fit results are unavailable

DV Diagnostic Results:

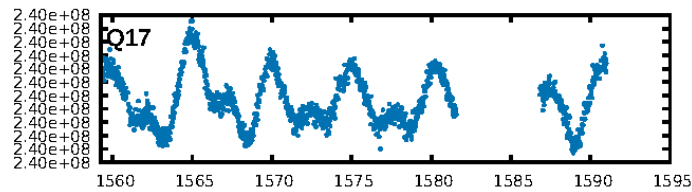
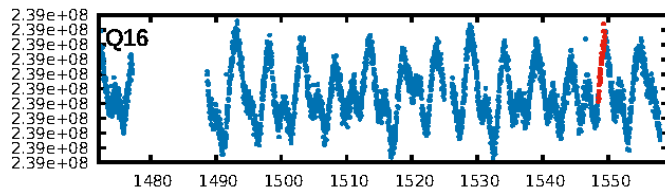
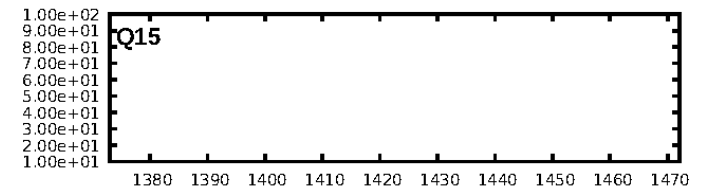
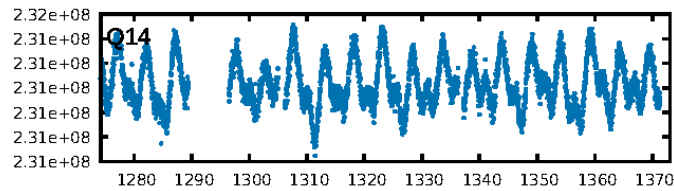
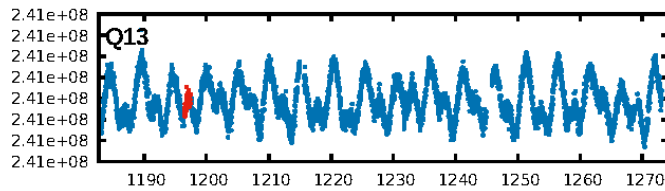
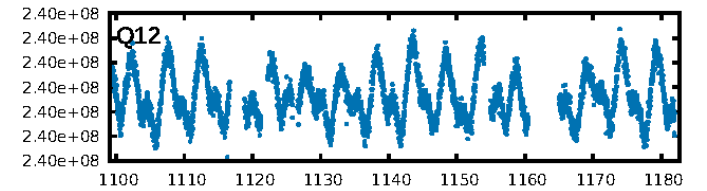
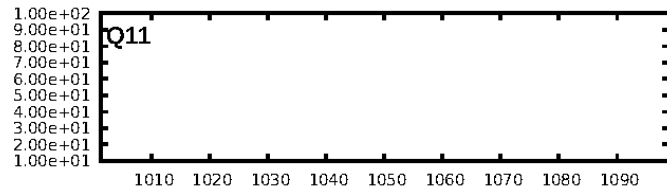
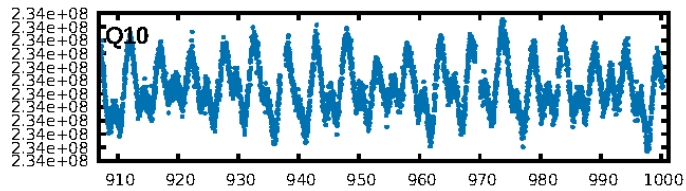
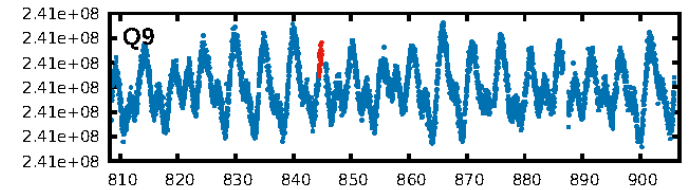
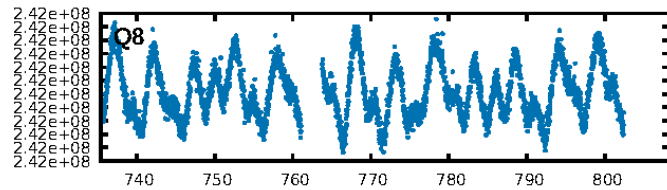
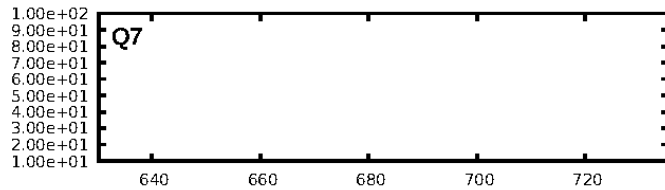
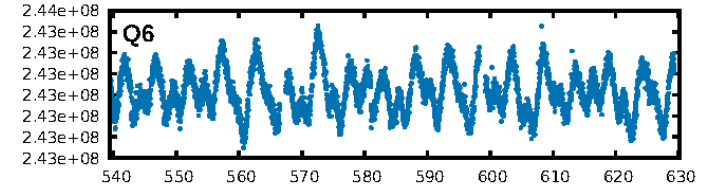
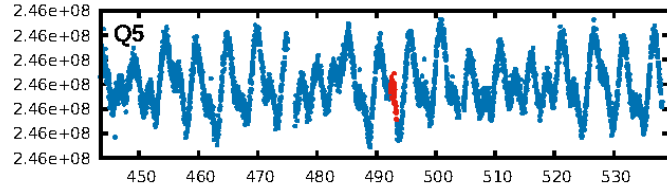
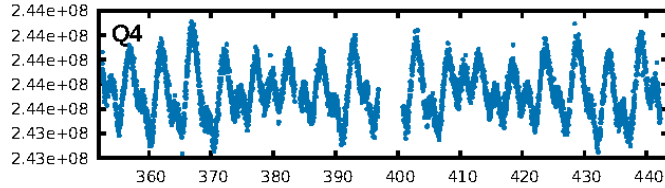
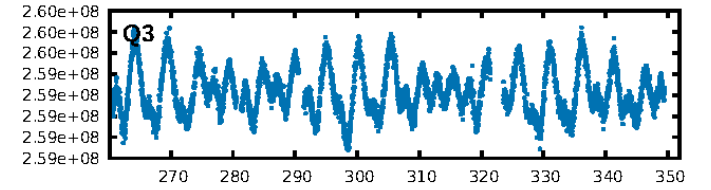
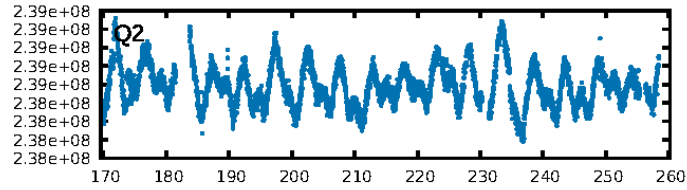
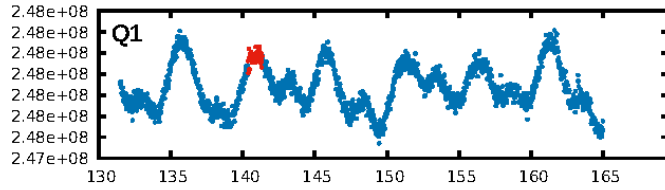
ShortPeriod-sig: 100.0% [50.55 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.47e-11
RollingBand-fgt: 1.00 [1/1]
GhostDiagnostic-chr: -5.916

Centroid-sig: 27.8%
Centroid-so: 16.754 arcsec [1.36 σ]
OotOffset-rm: 2.991 arcsec [0.52 σ]
KicOffset-rm: 2.906 arcsec [0.52 σ]
OotOffset-st: 0/0/1/2 [3]
KicOffset-st: 0/0/1/2 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 0.75 [3/4]

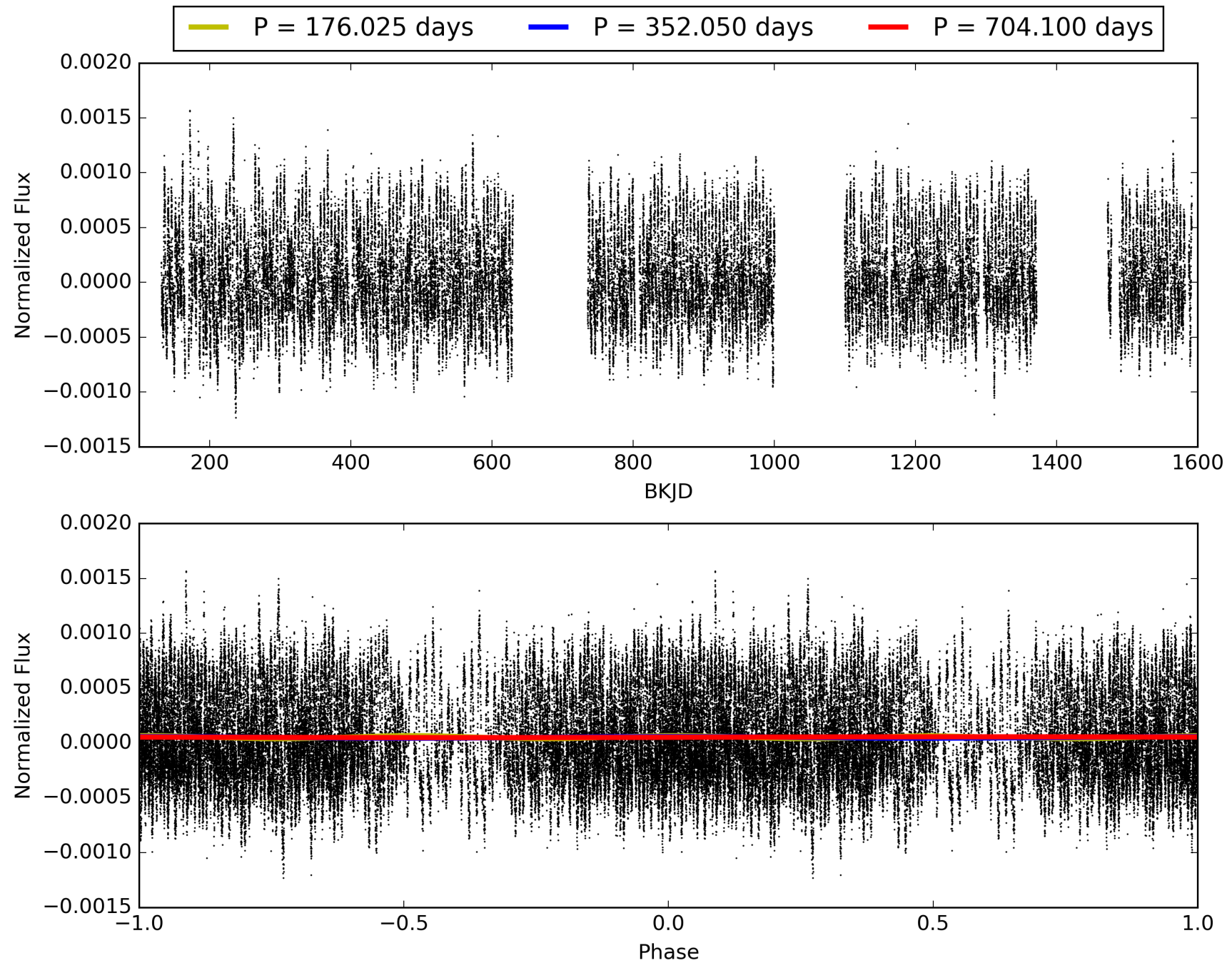
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:30:10 Z

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

TCE 009790034-05, PDC Light Curves

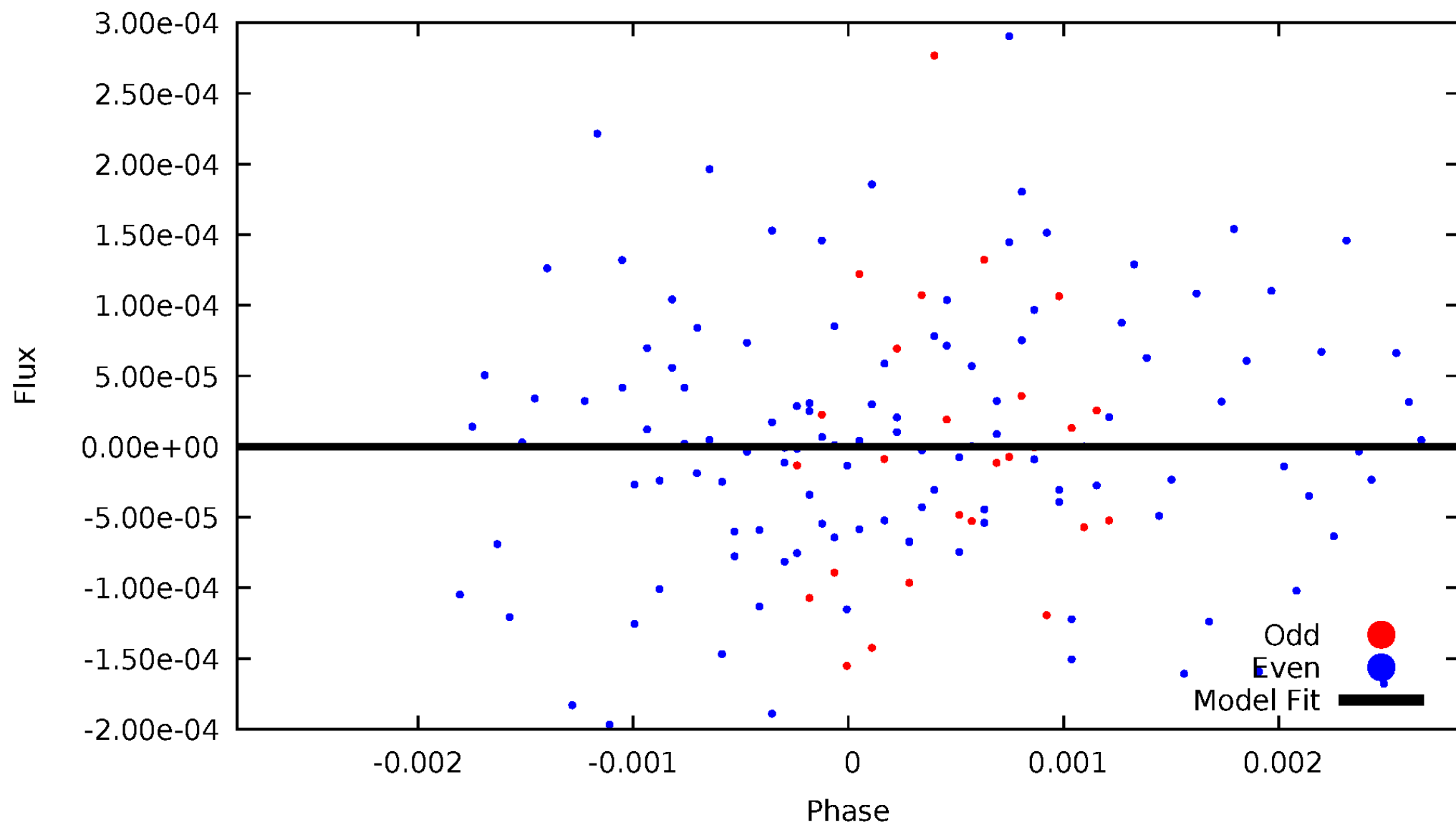


TCE 009790034-05



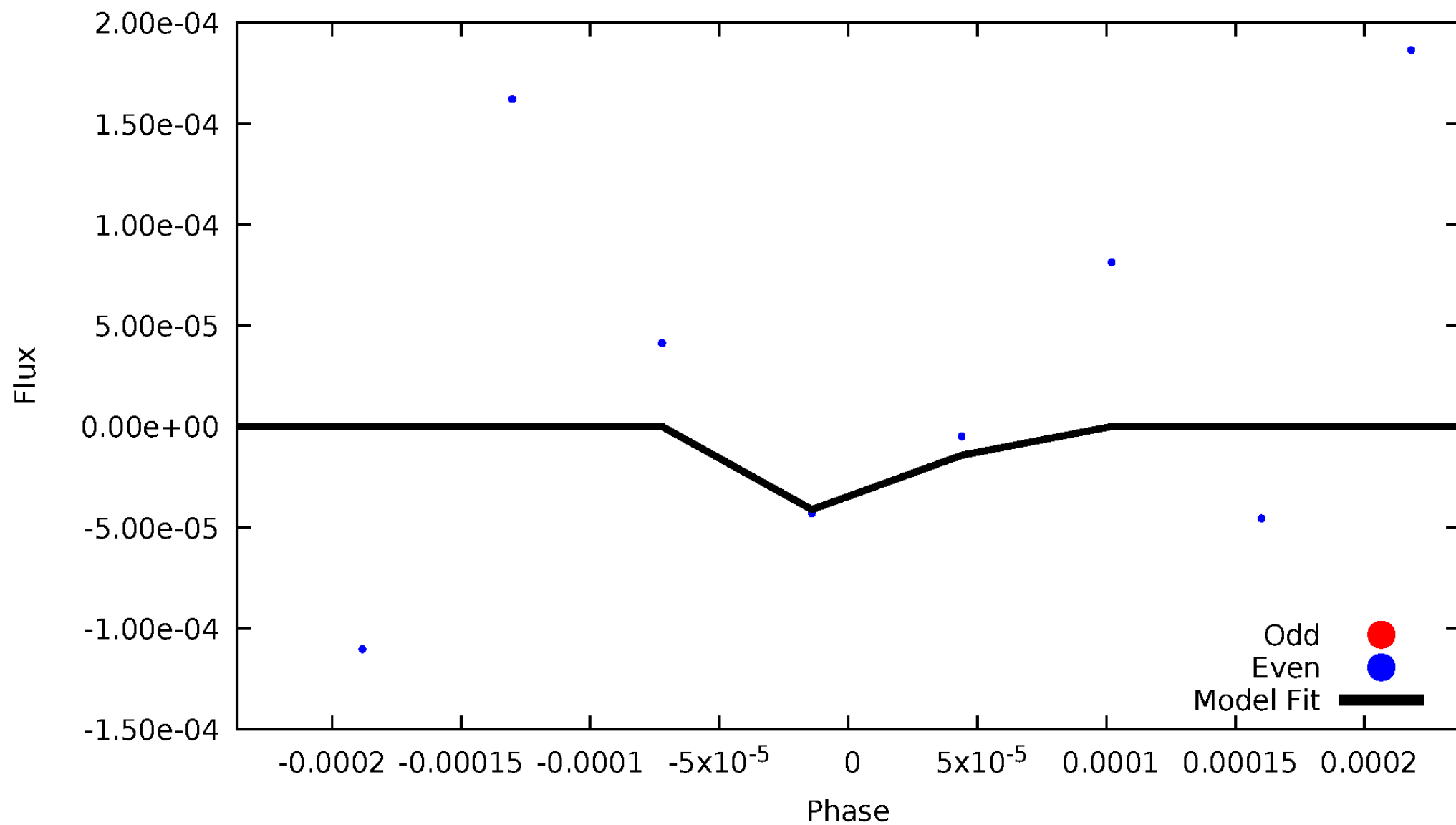
DV Odd/Even

TCE 009790034-05

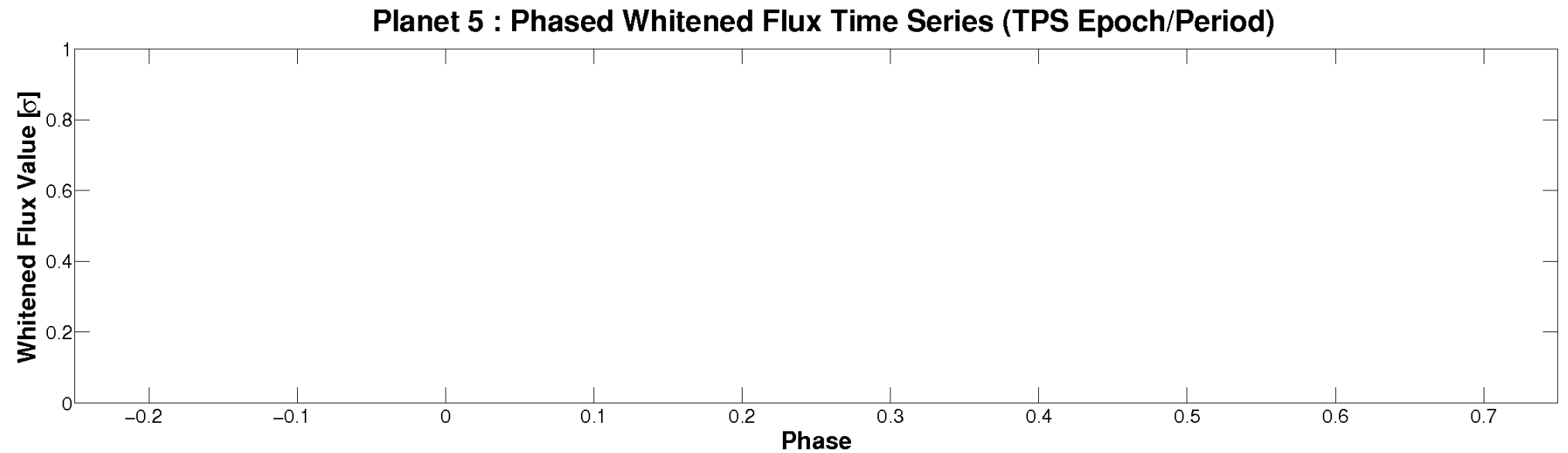
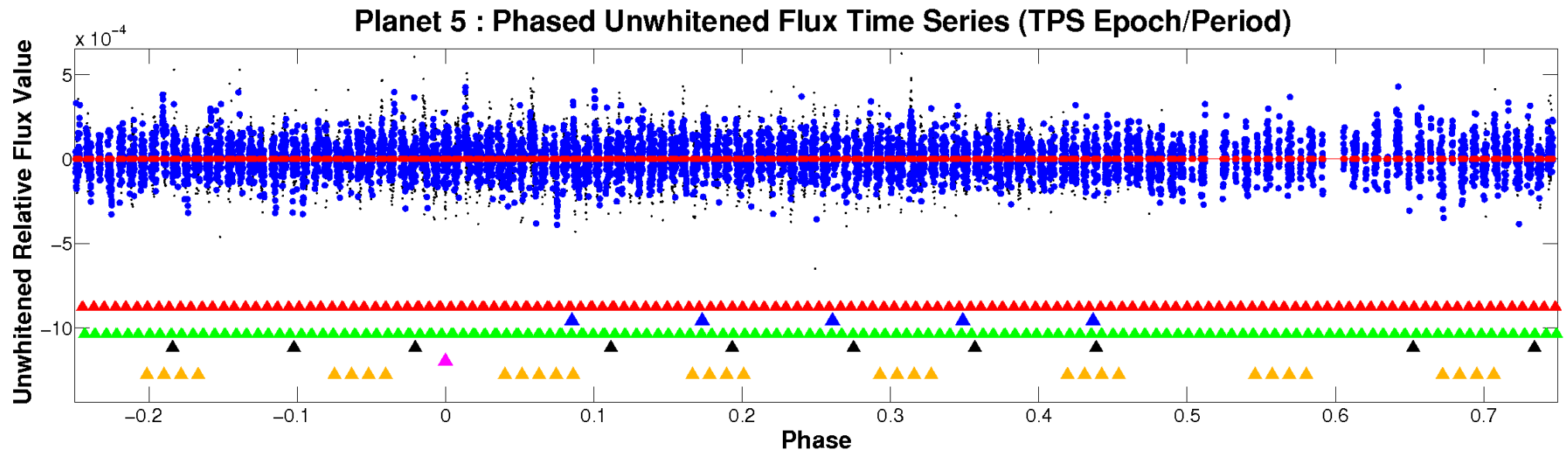


ALT Odd/Even

TCE 009790034-05

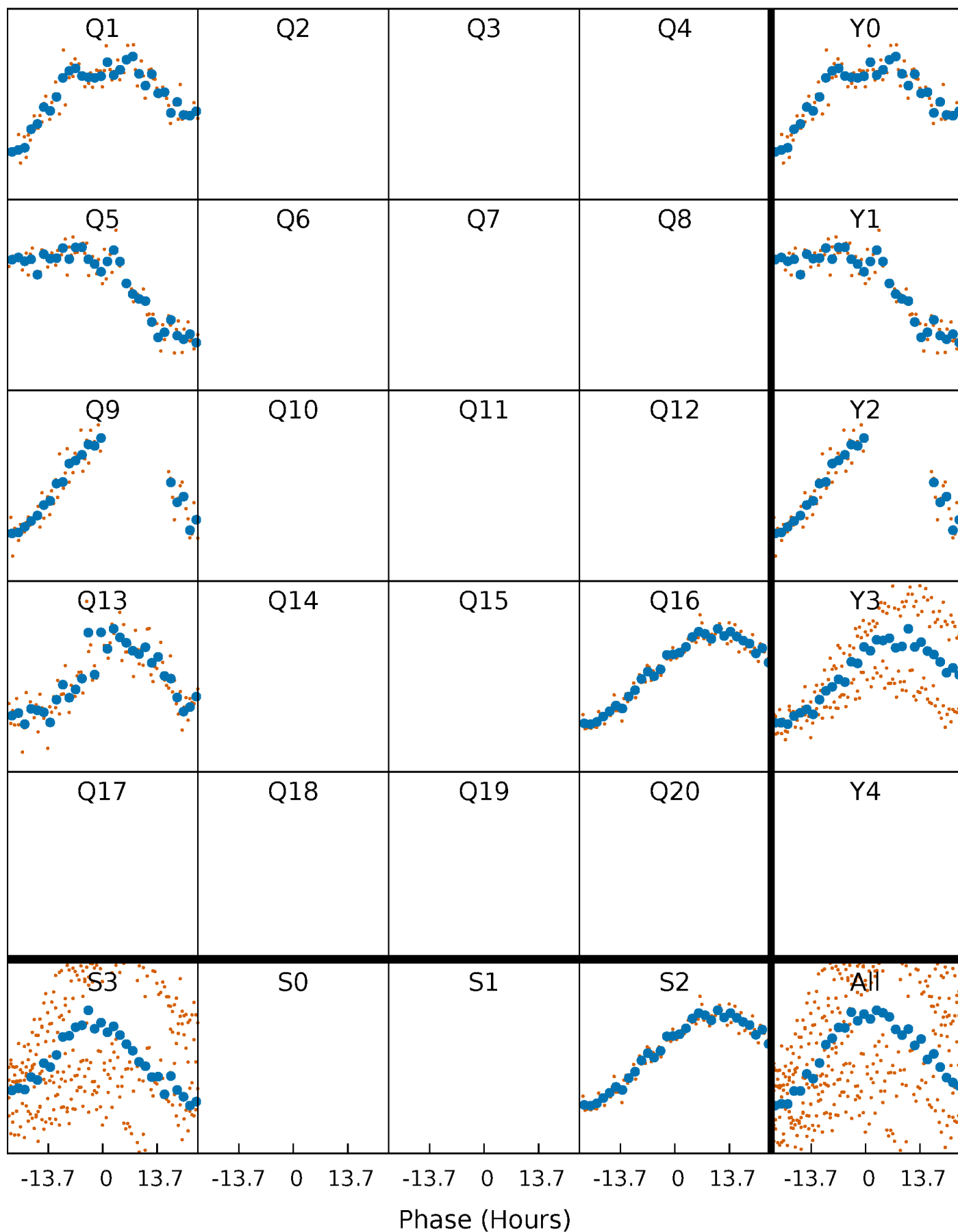


Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 009790034-05 $P=352.049805$ Days $T_0=140.832103$ (BKJD)



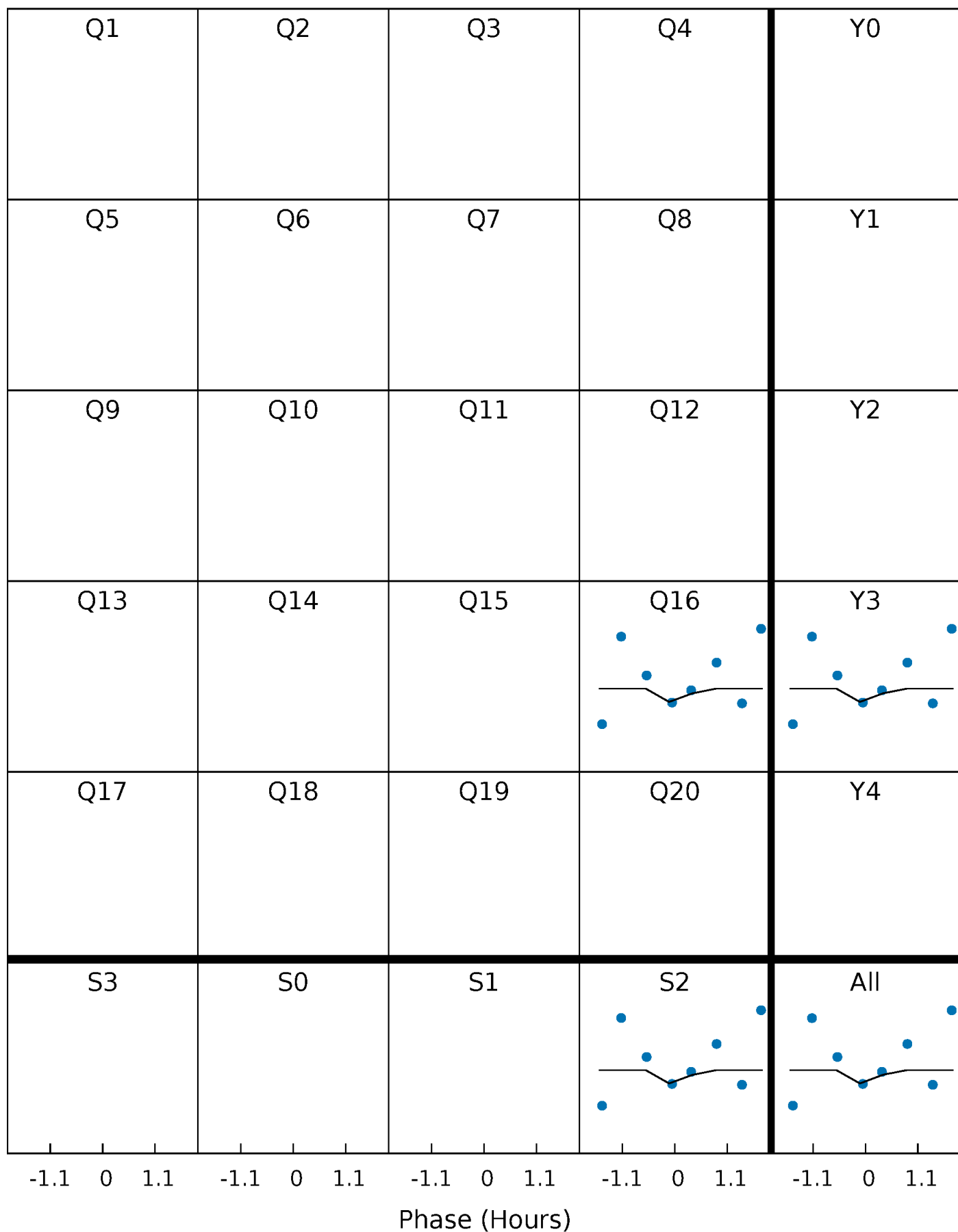
DV Quarter-Phased Transit Curves

TCE 009790034-05 $P=352.049805$ Days $T_0=140.832103$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

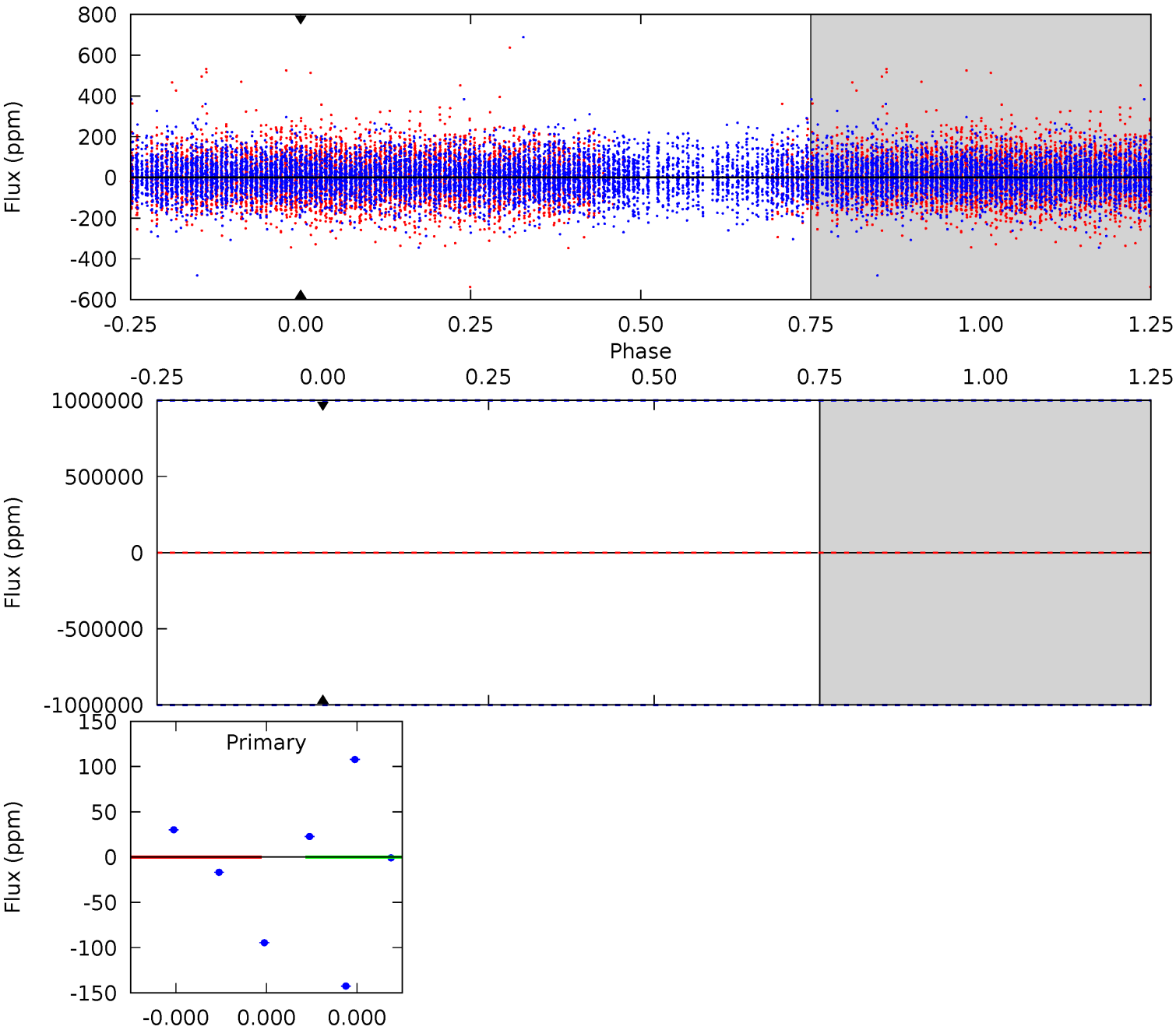
TCE 009790034-05 P=352.049805 Days $T_0=141.570461$ (BKJD)



DV Model-Shift Uniqueness Test

009790034-05, P = 352.049805 Days, E = 140.832103 Days

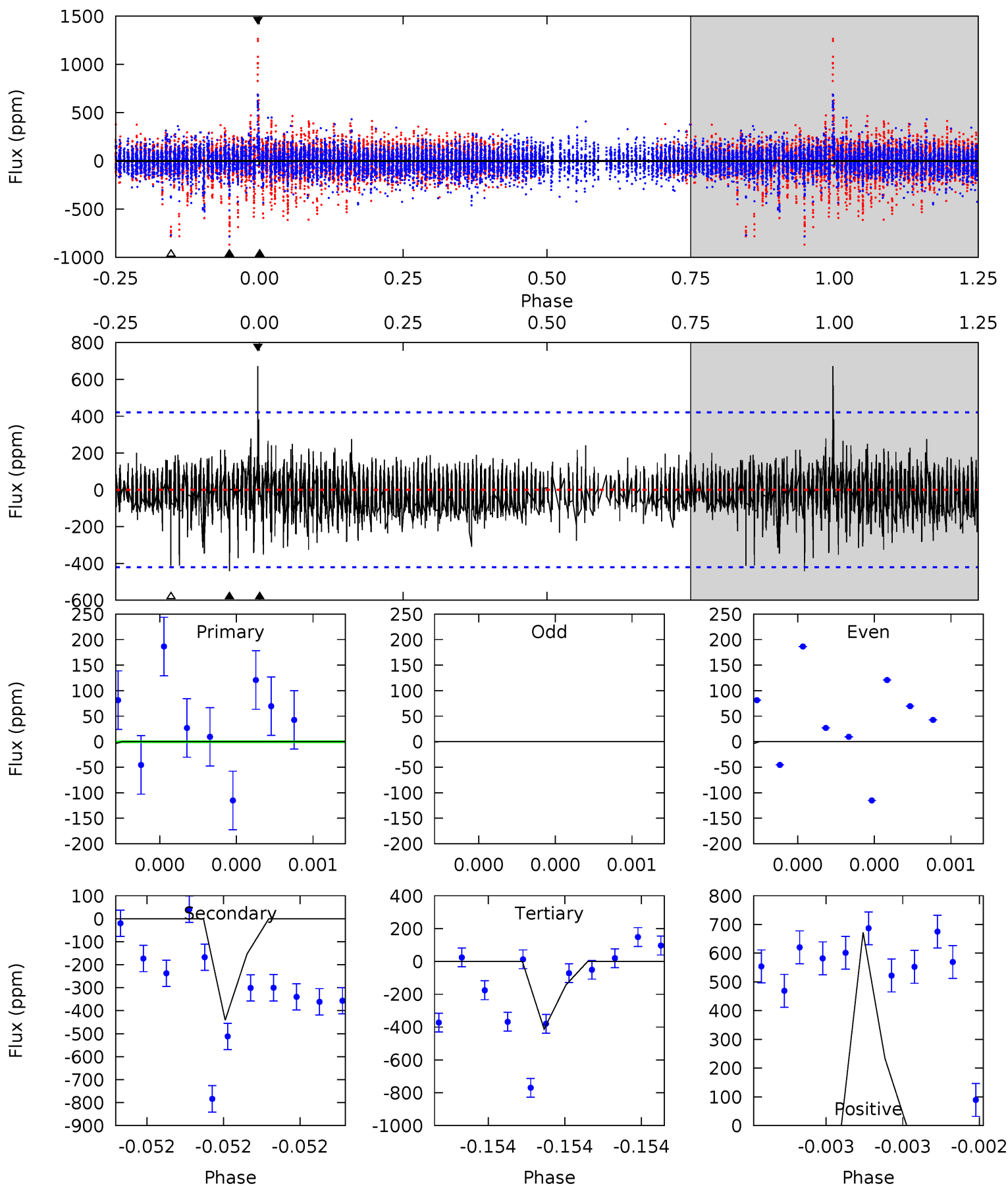
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

009790034-05, P = 352.049805 Days, E = 141.570461 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.54	6.00	5.61	9.15	5.73	3.71	0.98	-5.06	-8.61	0.40	-3.15	0.23	1.00	0.60	0.25



Stellar Parameters For KIC 009790034

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6796^{+183}_{-224}	$3.941^{+0.280}_{-0.100}$	$-0.640^{+0.300}_{-0.300}$	$1.904^{+0.386}_{-0.628}$	$1.155^{+0.193}_{-0.158}$	$0.236^{+0.428}_{-0.086}$
	+3%/-3%	+7%/-3%	+47%/-47%	+20%/-33%	+17%/-14%	+182%/-36%
Source	PHO1	FLK73	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 009790034-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$13.72^{+14.64}_{-9.43}$	559^{+36}_{-46}	-2664^{+43620}_{-28837}	$-74.870^{+659953.297}_{-530223.917}$
Alt.	-441 ± 73	$14.27^{+15.61}_{-10.64}$	559^{+37}_{-47}	3977^{+3162}_{-849}	1247^{+16802}_{-963}

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

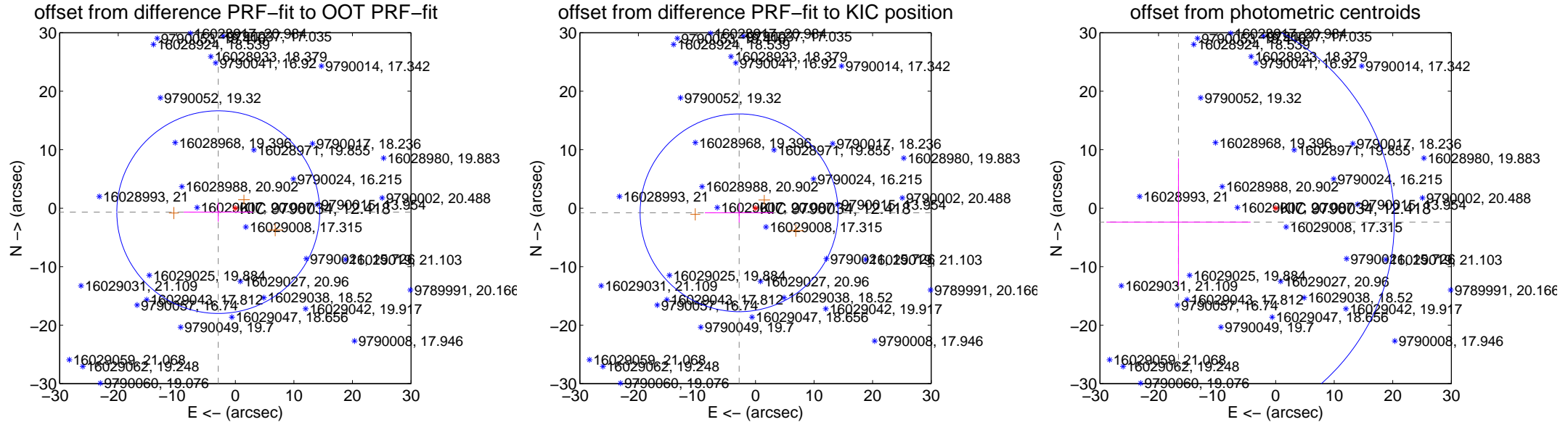
DV Centroid Data

Supplemental centroid analysis for 009790034-05. Kepler magnitude: 12.42. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

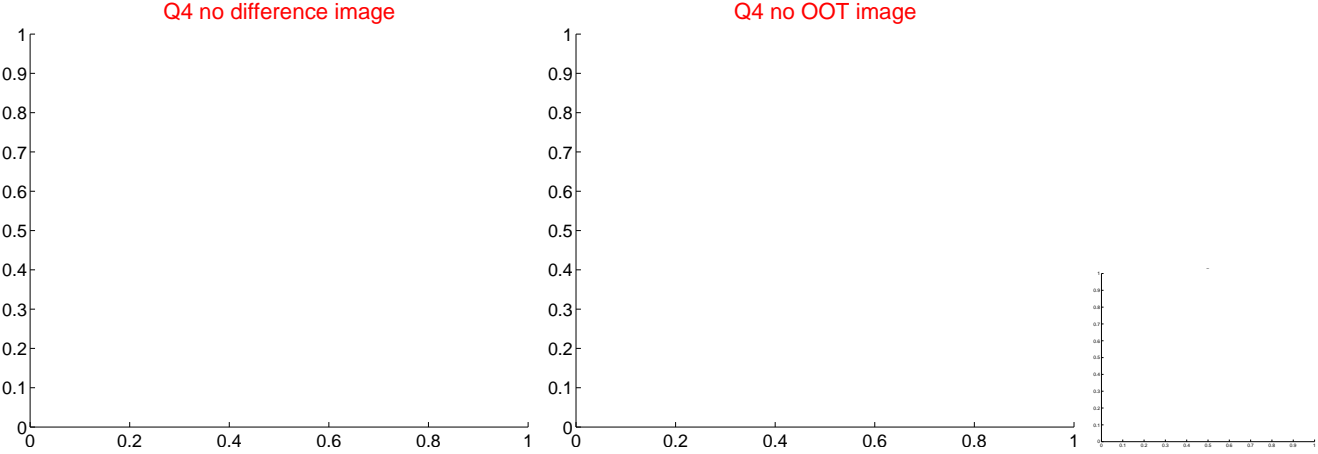
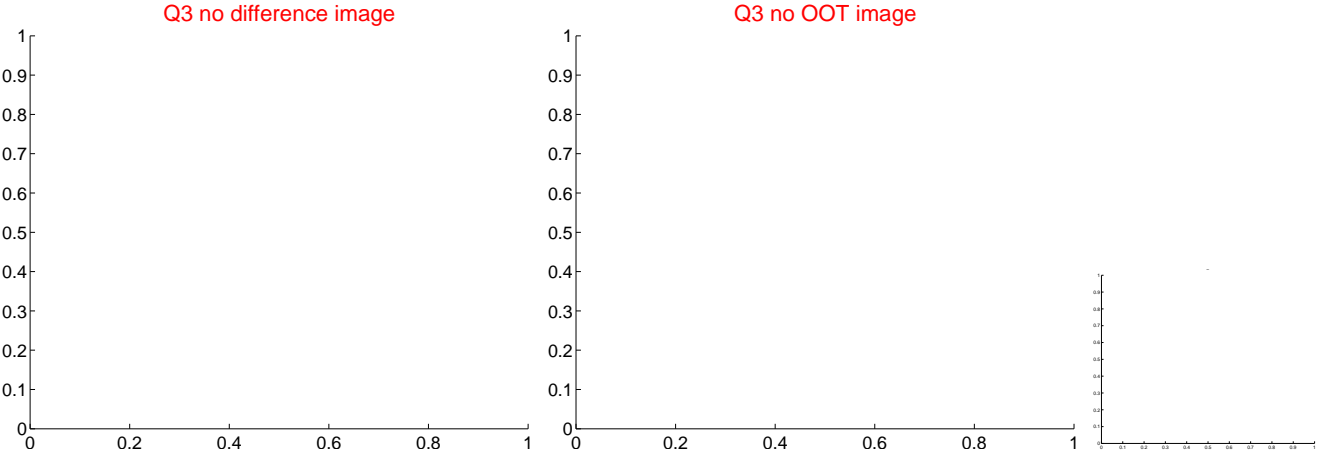
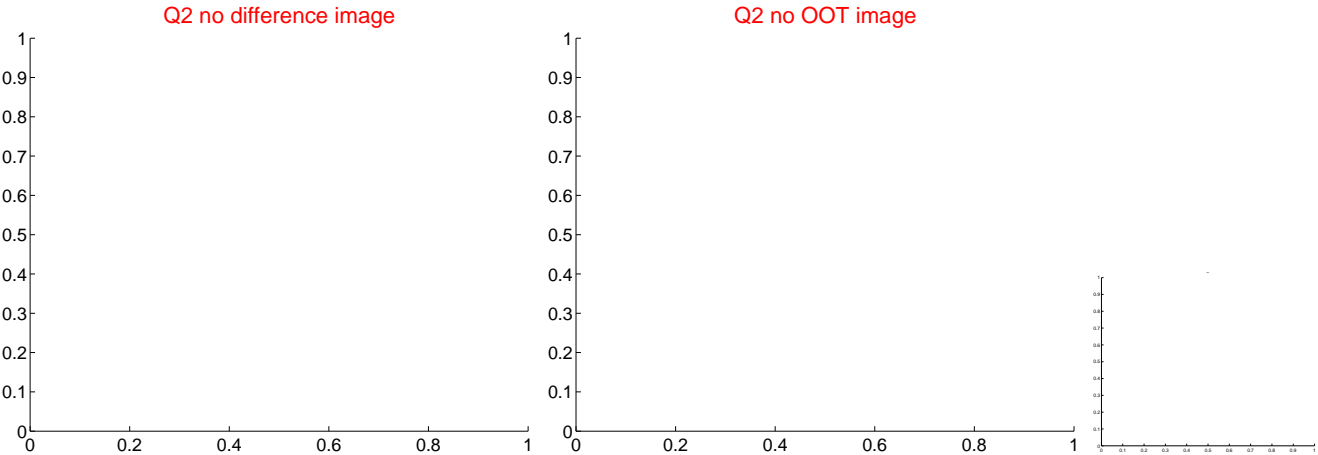
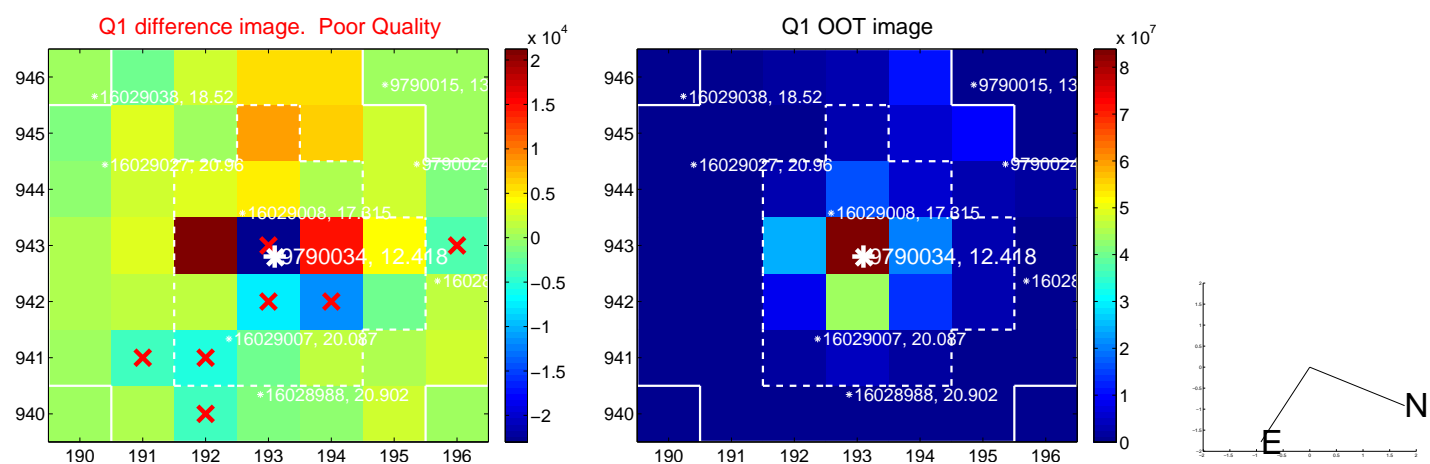
The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.991 ± 5.774	0.52	2.913 ± 5.917	-0.679 ± 1.628
PRF-fit source offset from KIC position	2.906 ± 5.635	0.52	2.796 ± 5.839	-0.792 ± 1.650
photometric centroid source offset	16.75 ± 12.28	1.36	16.58 ± 12.31	-2.38 ± 10.89

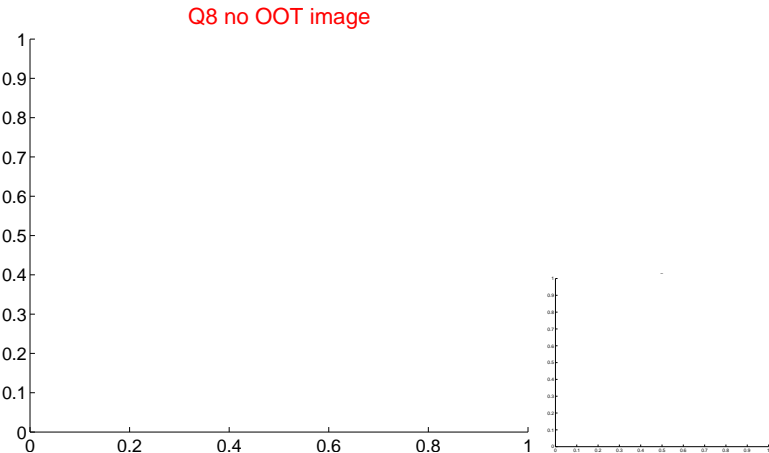
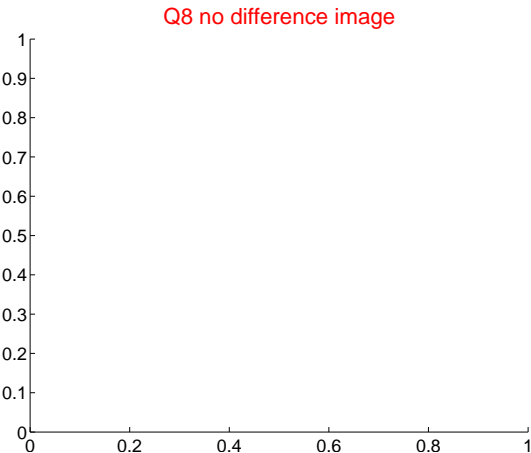
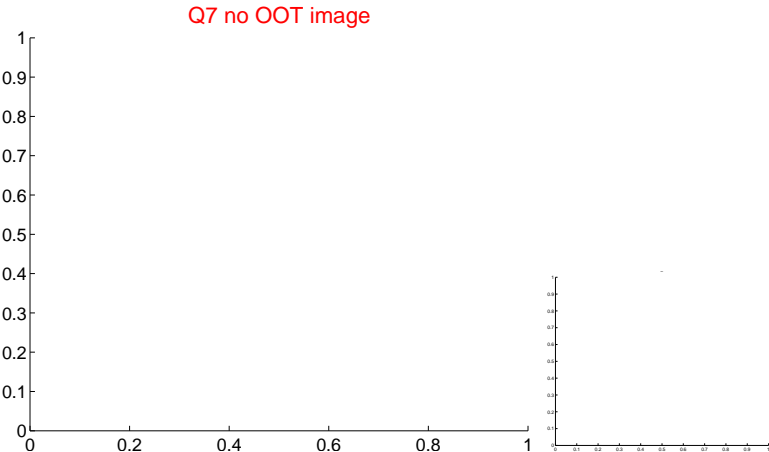
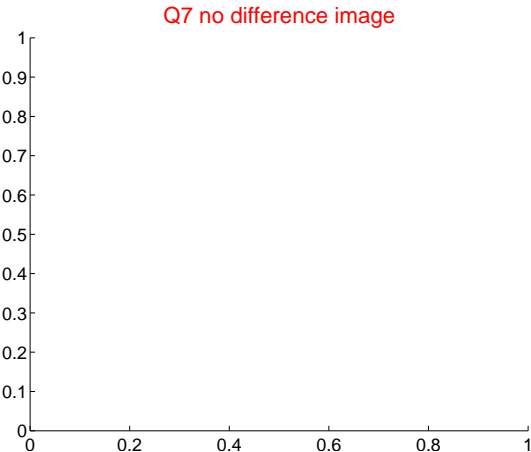
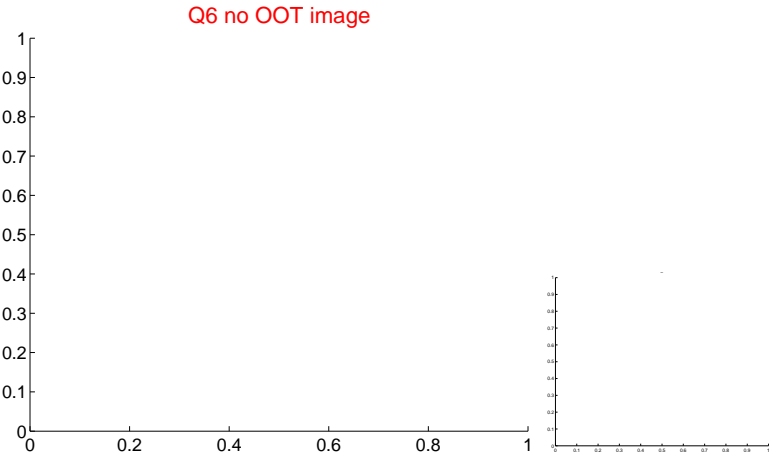
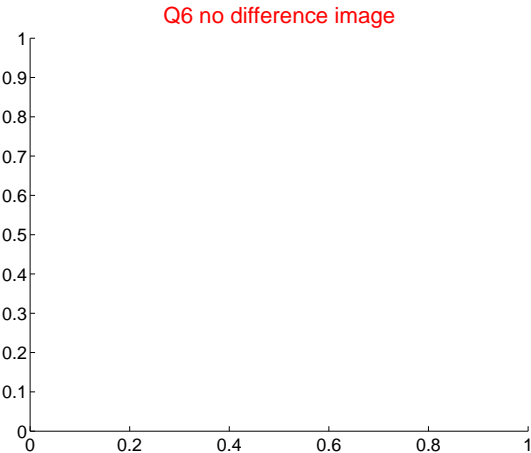
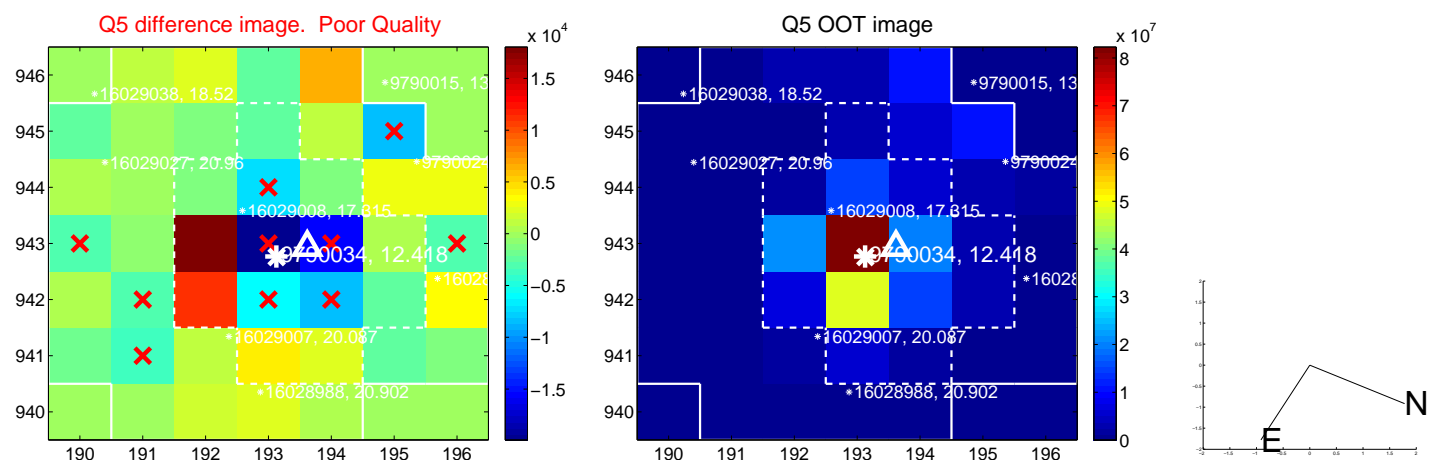


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

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



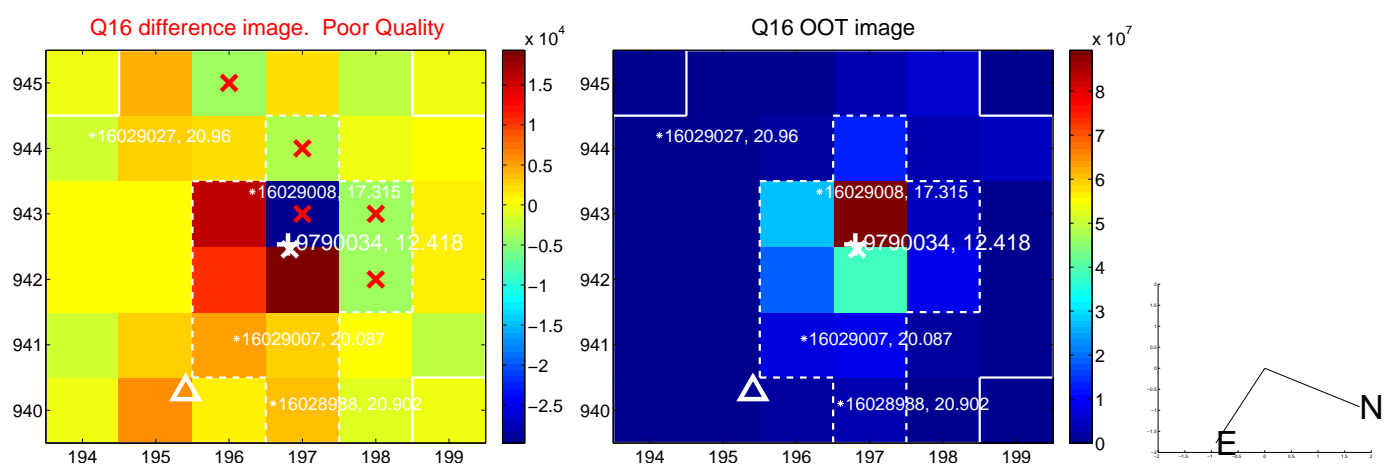
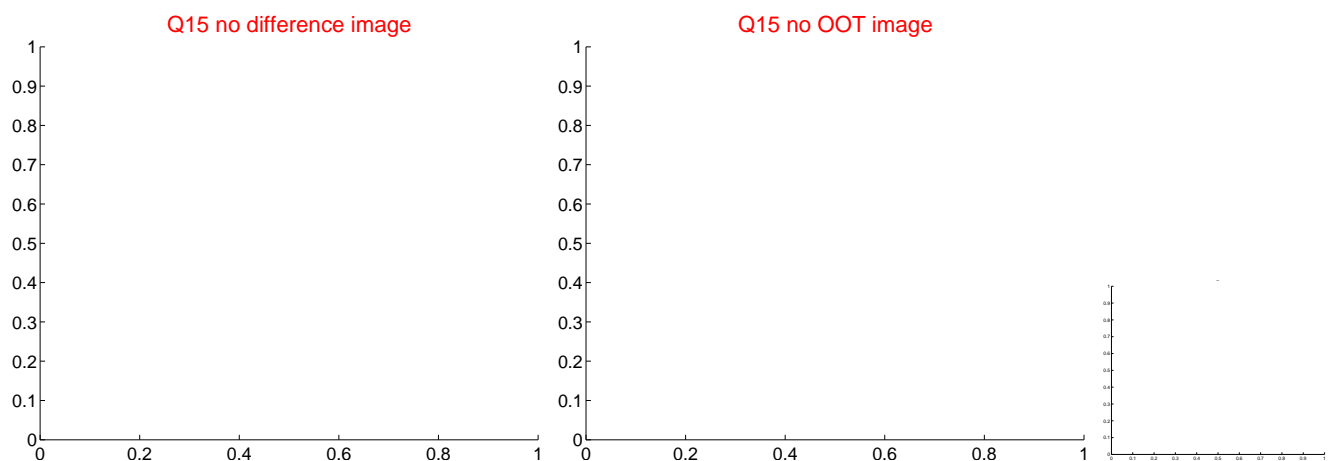
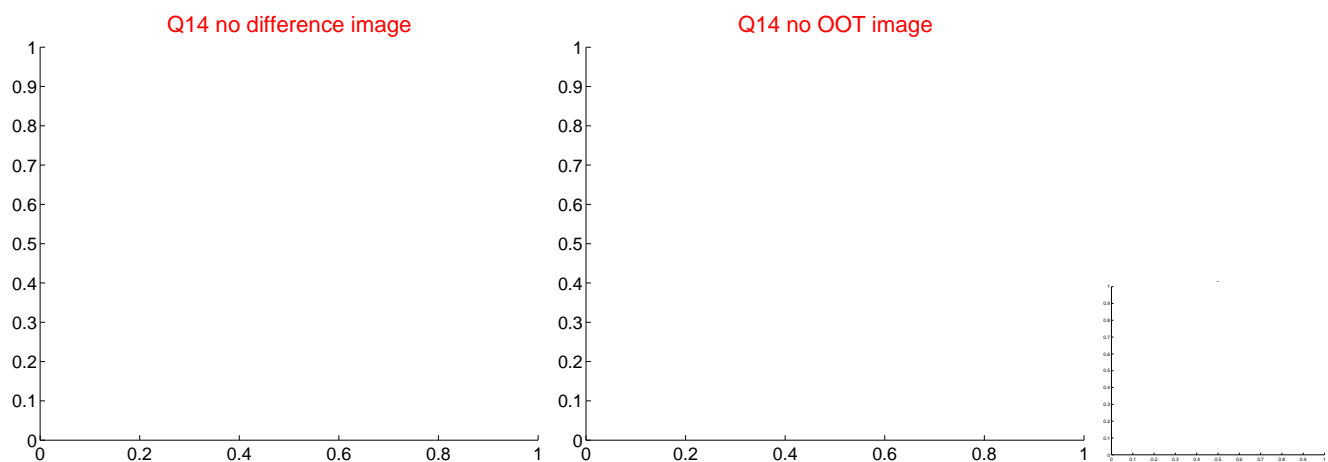
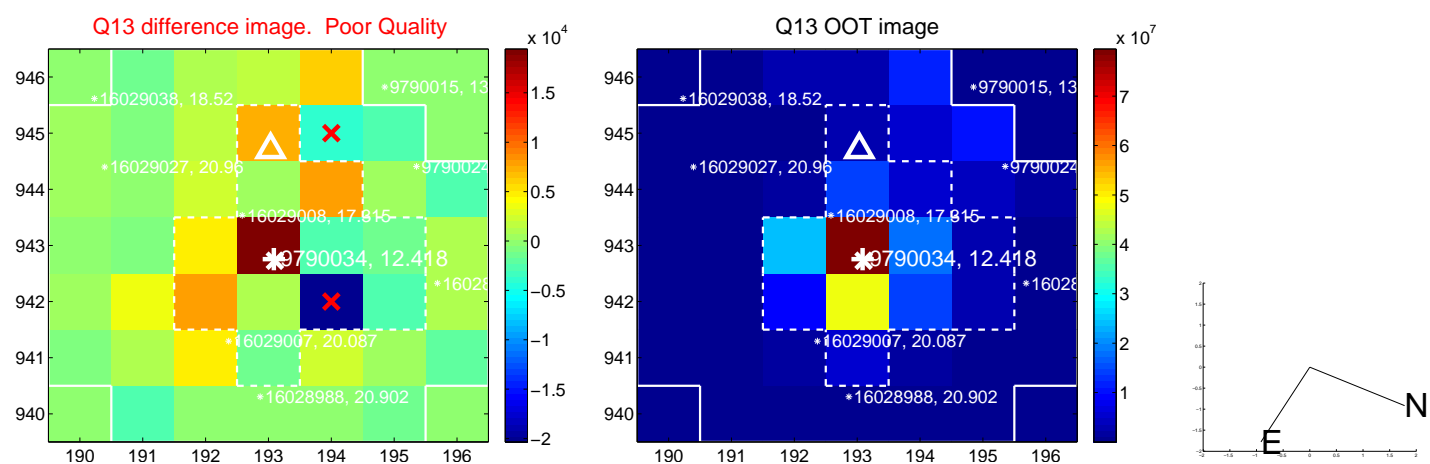
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



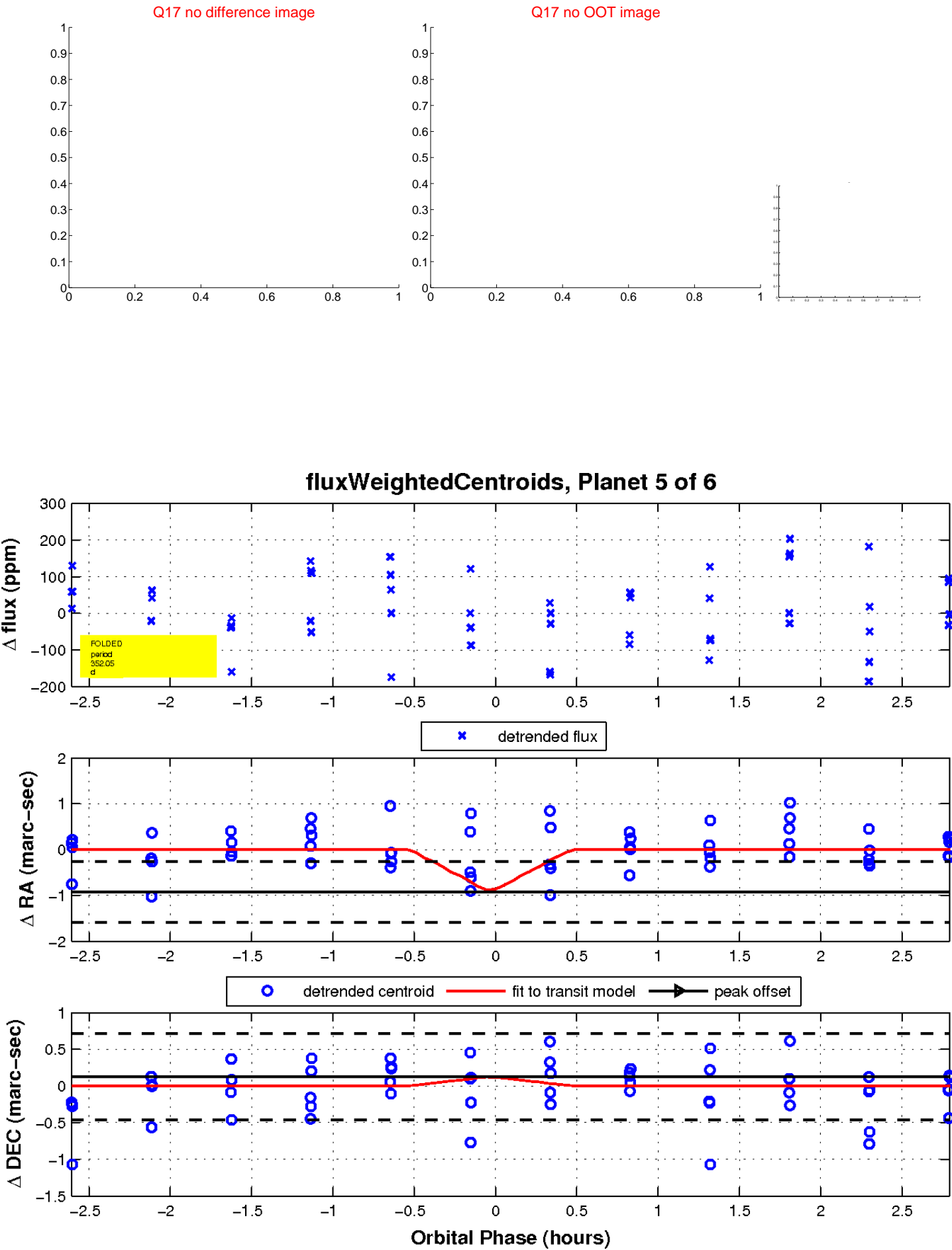
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

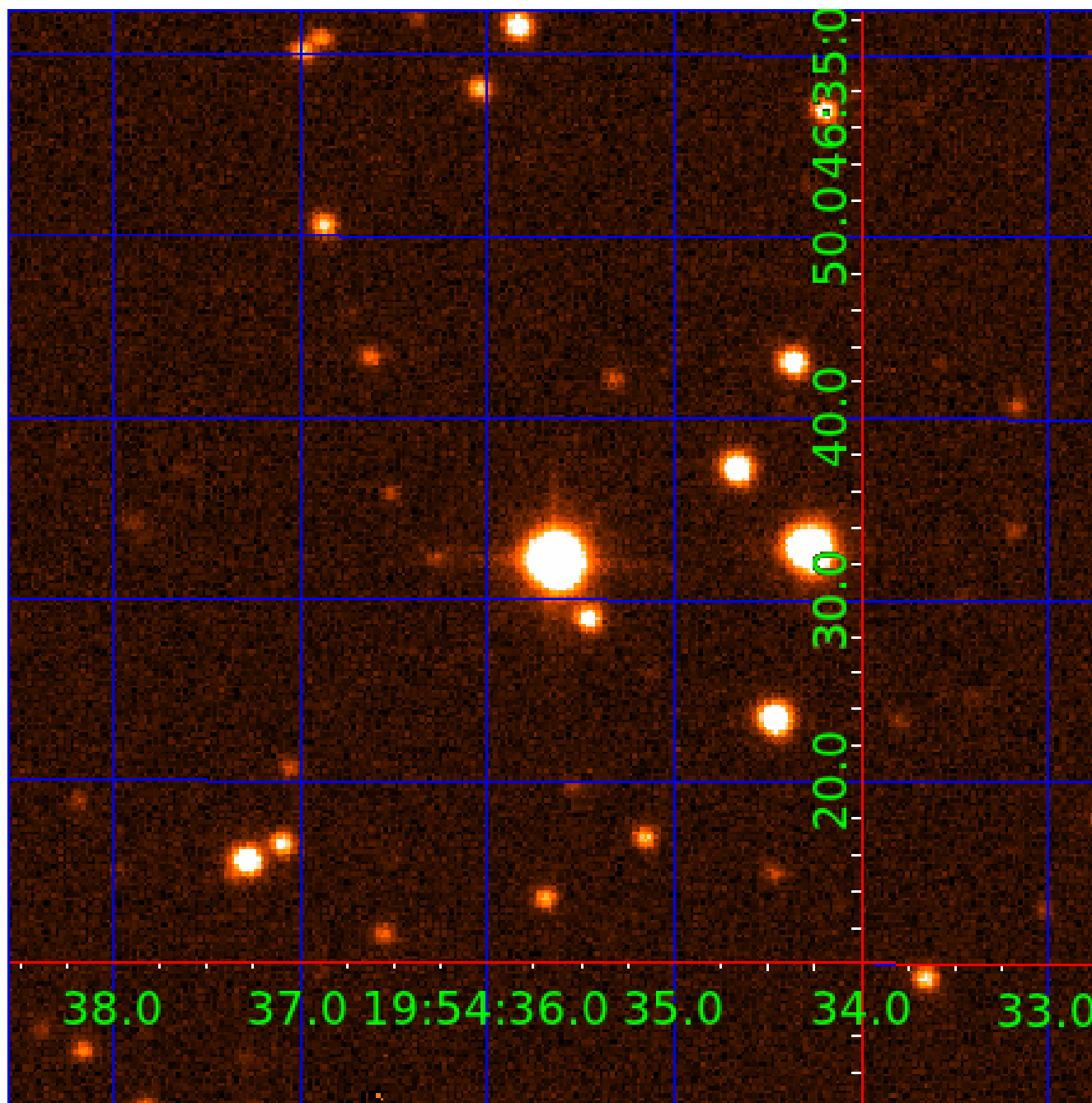


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 009790034

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})
009790034-01	OBS	No	5.141290	134.109675	25.2	14.798	7.6	7.5	1.90	6796	1.20	1851.78
009790034-02	OBS	No	321.122579	294.553475	151.7	8.462	9.6	6.0	1.90	6796	2.72	7.47
009790034-03	OBS	No	5.141487	131.903003	20.6	15.479	8.1	6.8	1.90	6796	0.96	1851.69
009790034-05	OBS	No	352.049805	140.832103	152.6	12.000	11.0	-1.0	1.90	6796	2.37	6.61
009790034-06	OBS	No	44.512947	154.941981	54.6	13.890	7.3	3.9	1.90	6796	1.59	104.16

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009790034-01	OBS	FP	0.00	1	0	0	0	LPP_DV
009790034-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—INCONSISTENT_TRANS
009790034-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—SAME_NTL_PERIOD
009790034-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
009790034-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_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.

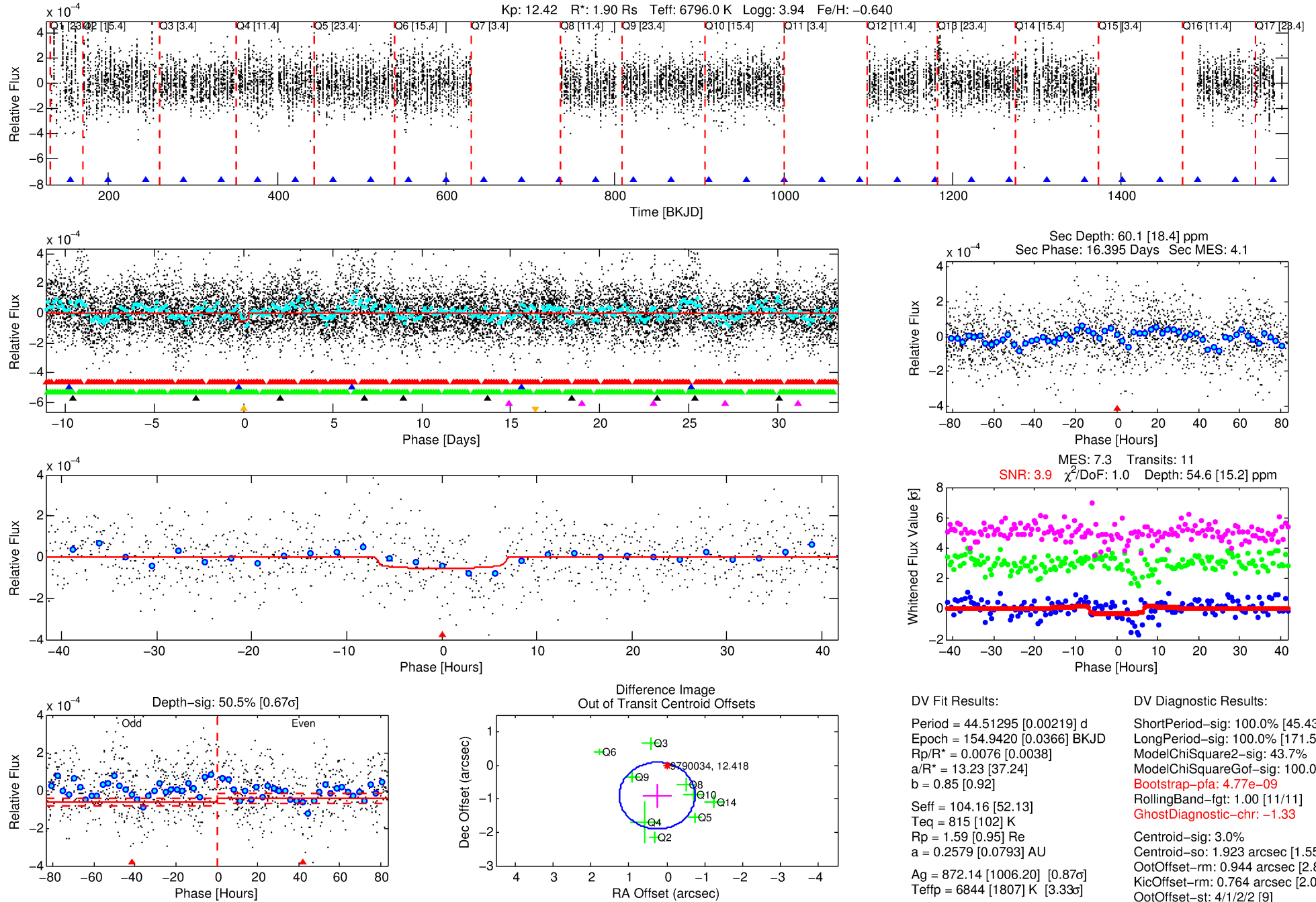
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009790034-06

No Significant Match Found

DV One-Page Summary

KIC: 9790034 Candidate: 6 of 6 Period: 44.513 d



DV Fit Results:

Period = 44.51295 [0.00219] d
Epoch = 154.9420 [0.0366] BKJD
Rp/R* = 0.0076 [0.0038]
a/R* = 13.23 [37.24]
b = 0.85 [0.92]
Seff = 104.16 [52.13]
Teq = 815 [102] K
Rp = 1.59 [0.95] Re
a = 0.2579 [0.0793] AU
Ag = 872.14 [1006.20] [0.87σ]
Teffp = 6844 [1807] K [3.33σ]

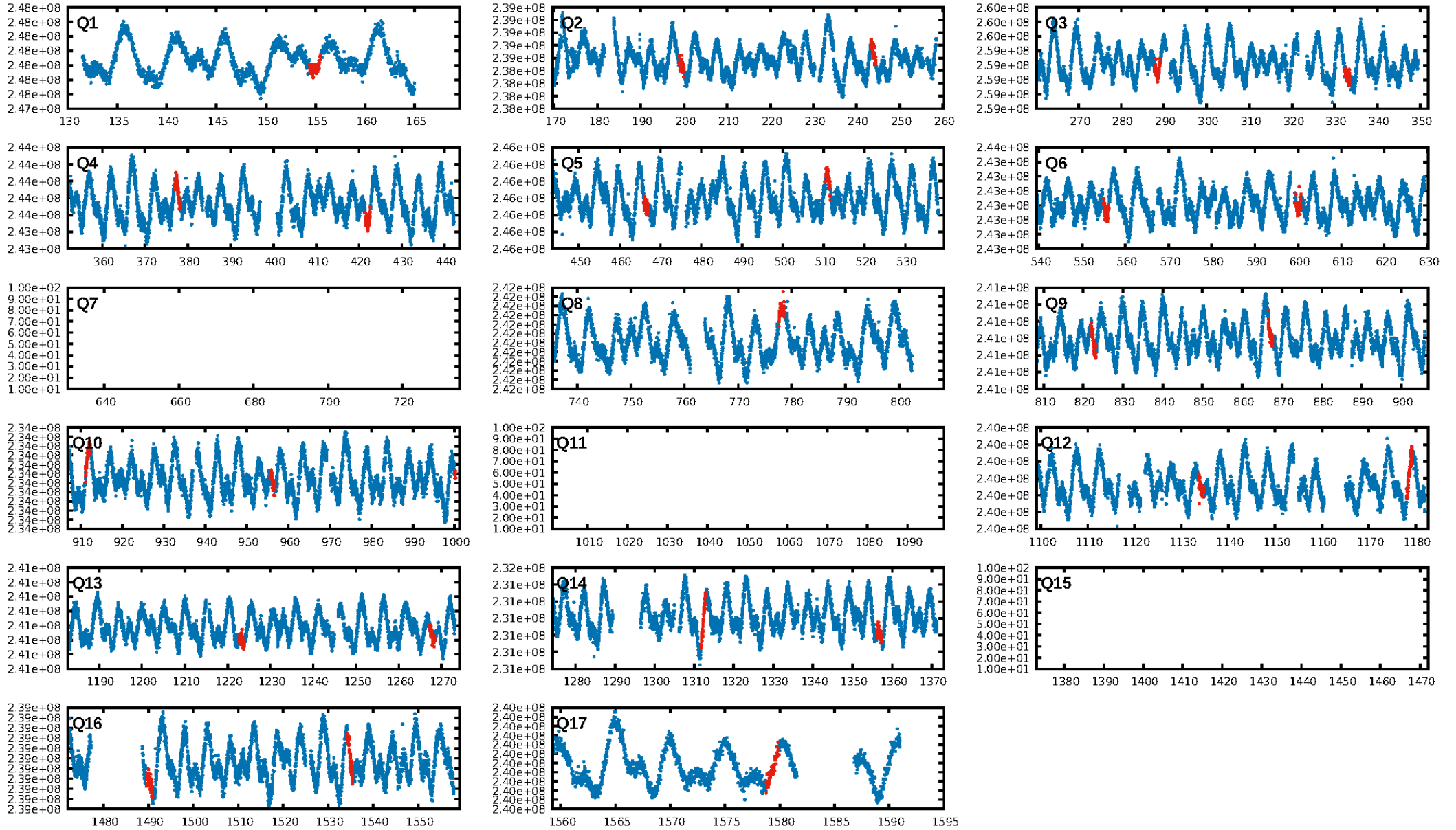
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [45.43σ]
LongPeriod-sig: 100.0% [171.56σ]
ModelChiSquare2-sig: 43.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.77e-09
RollingBand-fgt: 1.00 [11/11]
GhostDiagnostic-chr: -1.33
Centroid-sig: 3.0%
Centroid-so: 1.923 arcsec [1.55σ]
OotOffset-rm: 0.944 arcsec [2.84σ]
KicOffset-rm: 0.764 arcsec [2.02σ]
OotOffset-st: 4/1/2/2 [9]
KicOffset-st: 4/1/2/2 [9]
DiffImageQuality-fgm: 0.44 [4/9]
DiffImageOverlap-fno: 0.15 [2/13]

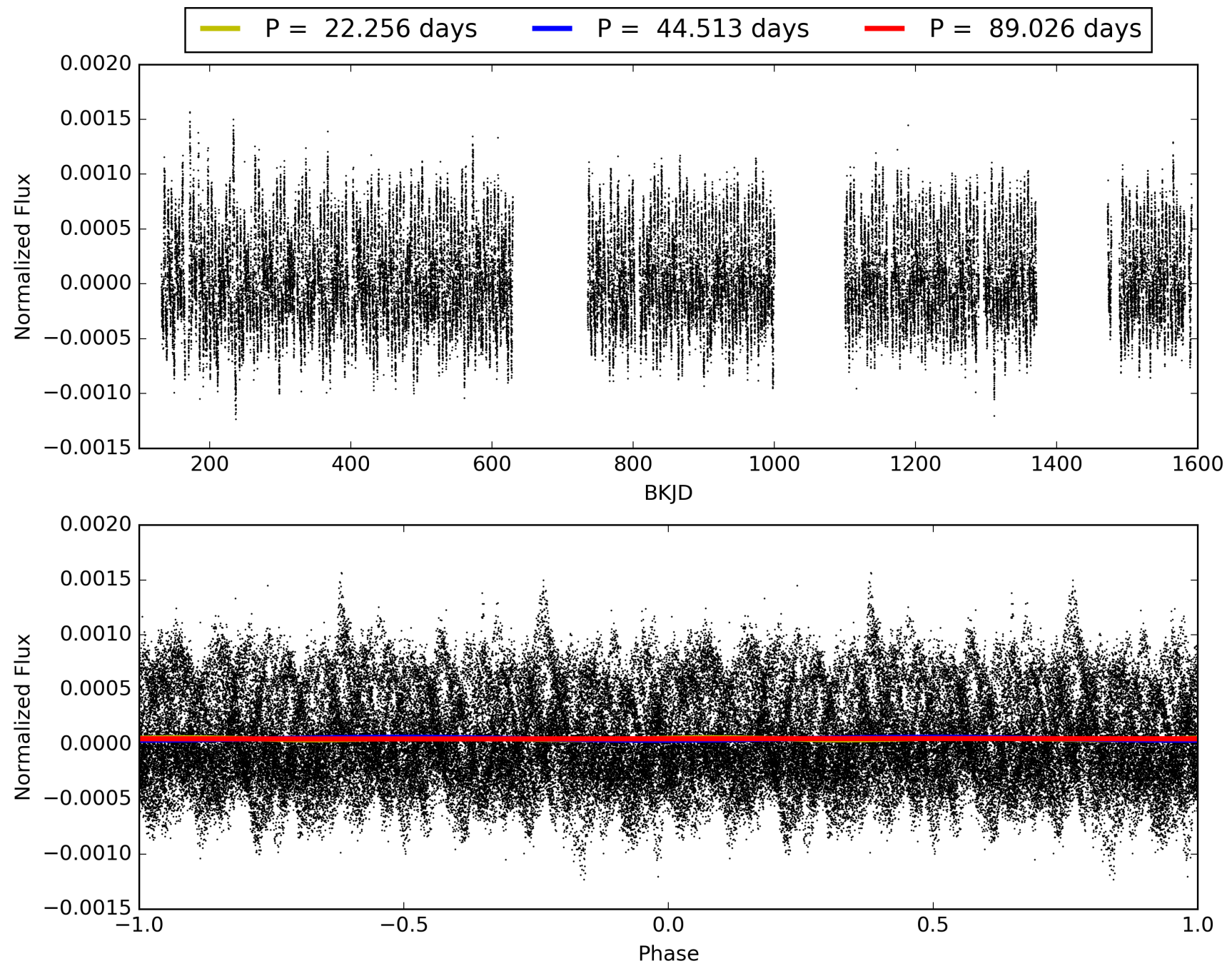
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:30:14 Z

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

TCE 009790034-06, PDC Light Curves

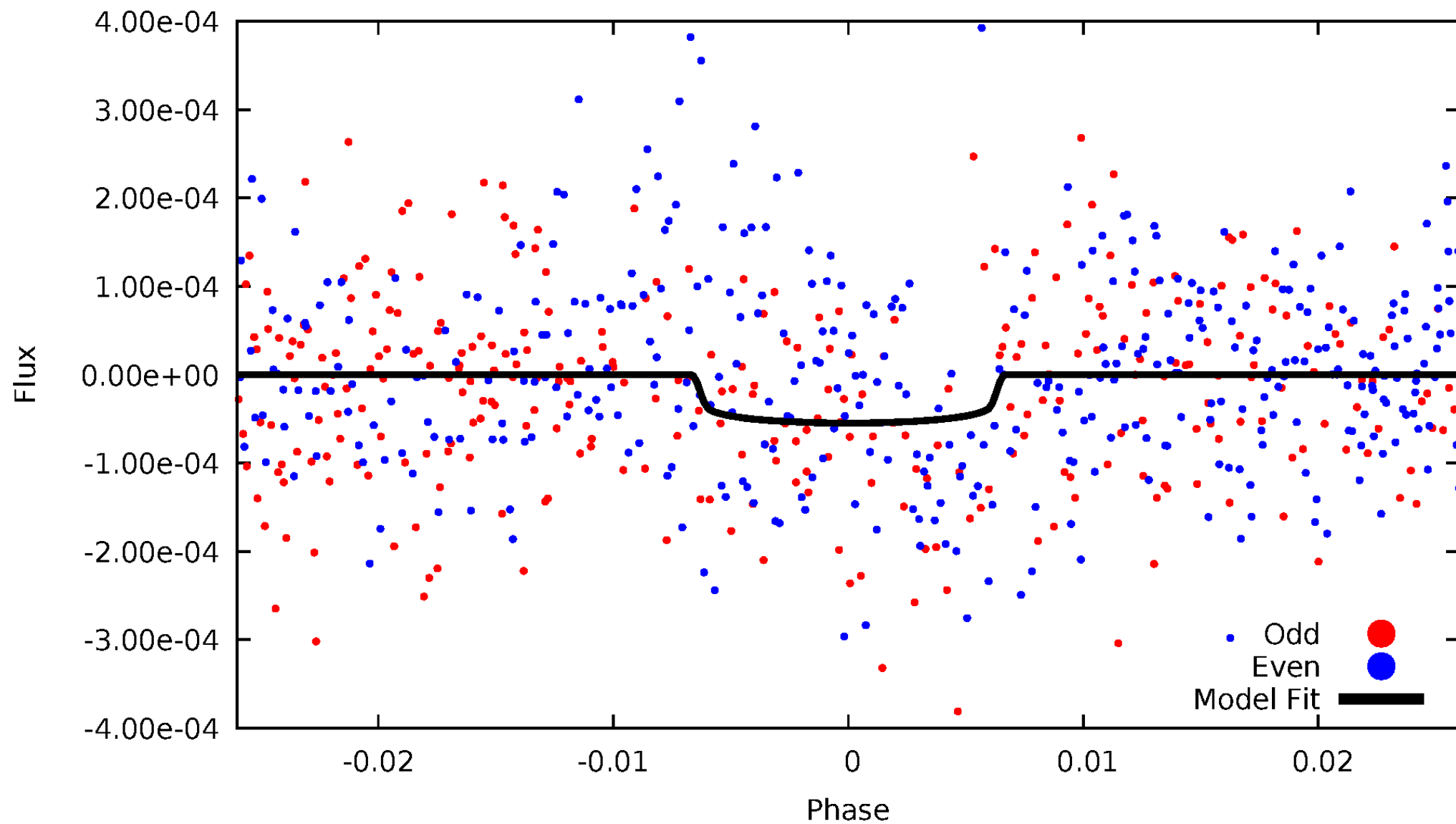


TCE 009790034-06



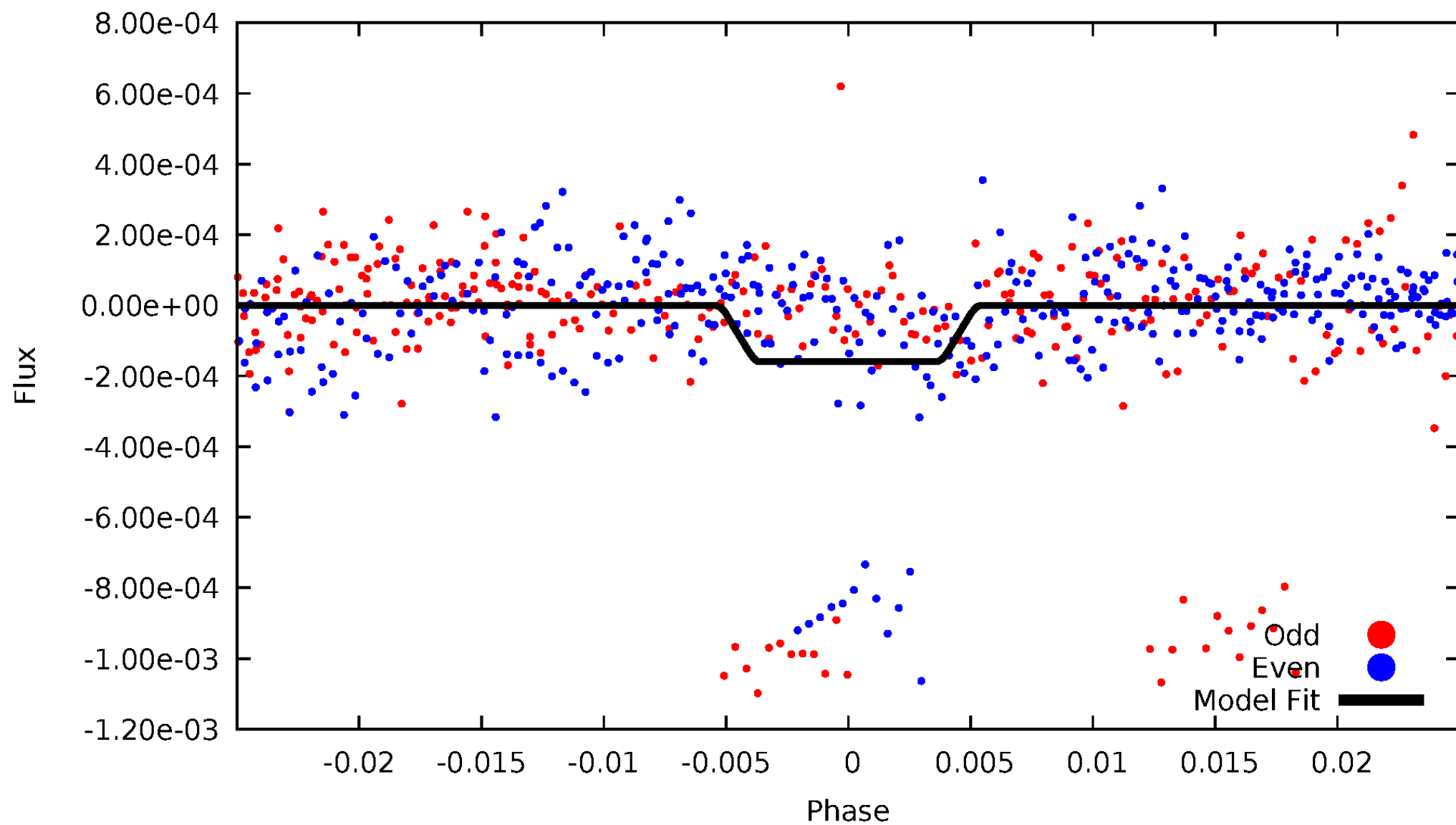
DV Odd/Even

TCE 009790034-06



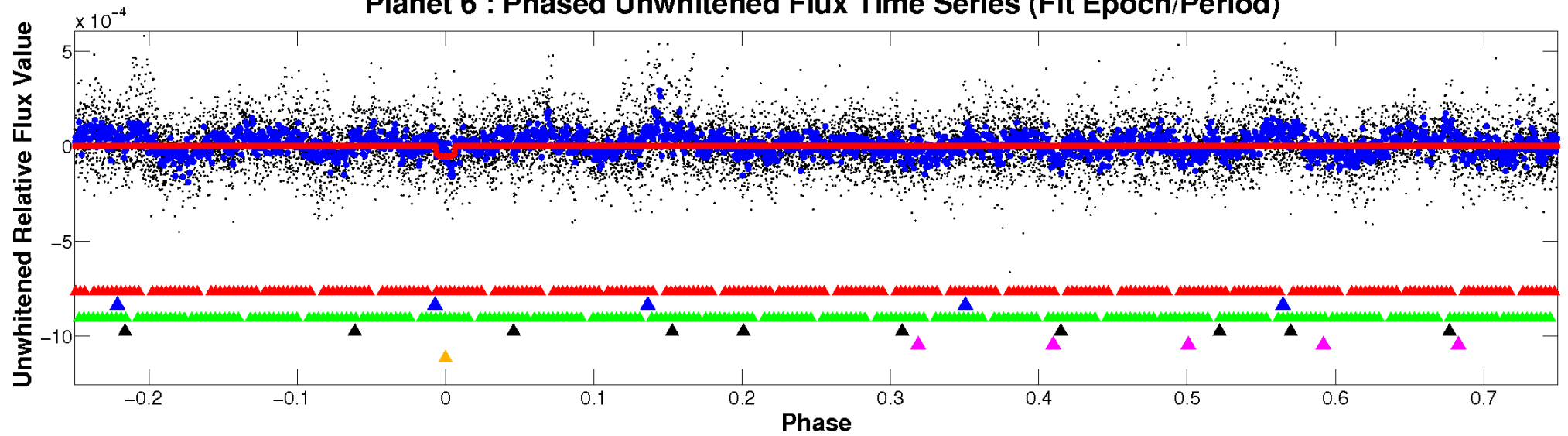
ALT Odd/Even

TCE 009790034-06

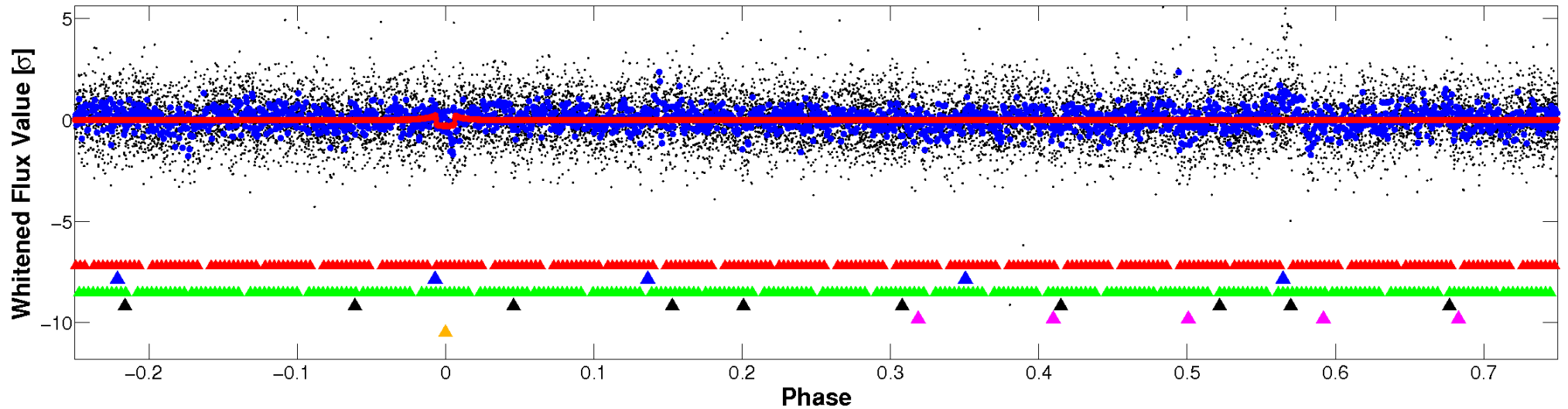


Non-Whitened Vs. Whitened Light Curve

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

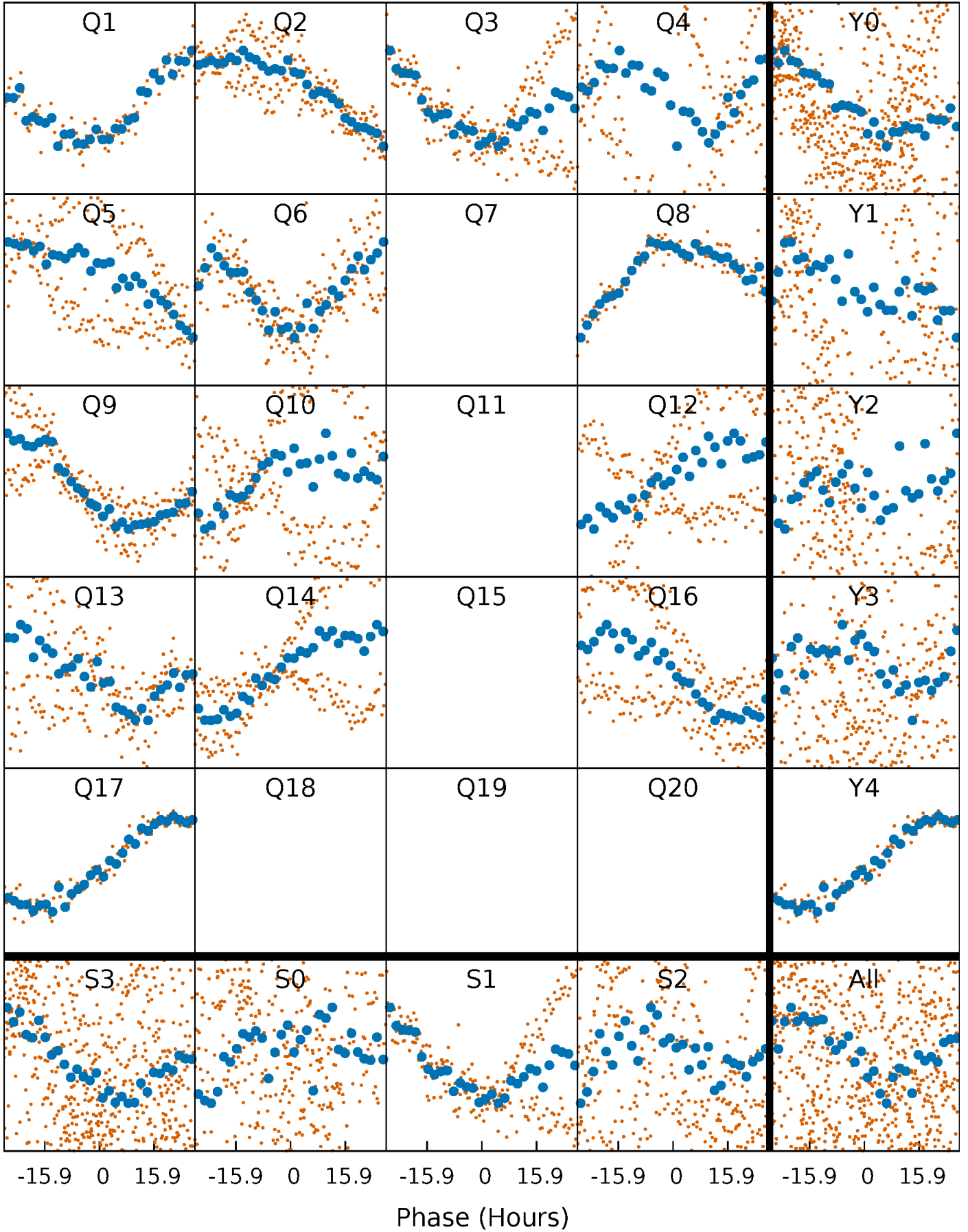


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



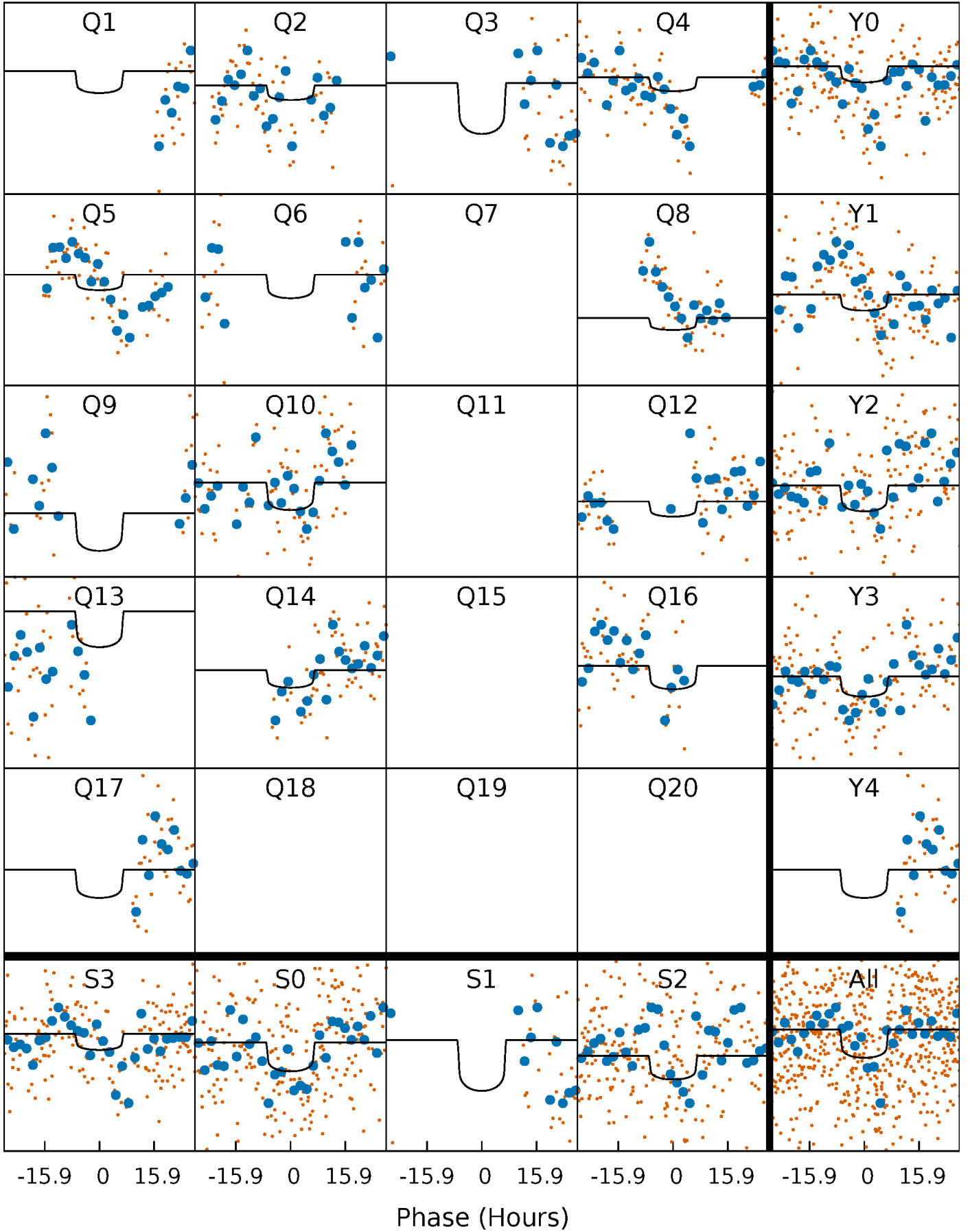
PDC Quarter-Phased Transit Curves

TCE 009790034-06 P= 44.512947 Days $T_0=154.941981$ (BKJD)



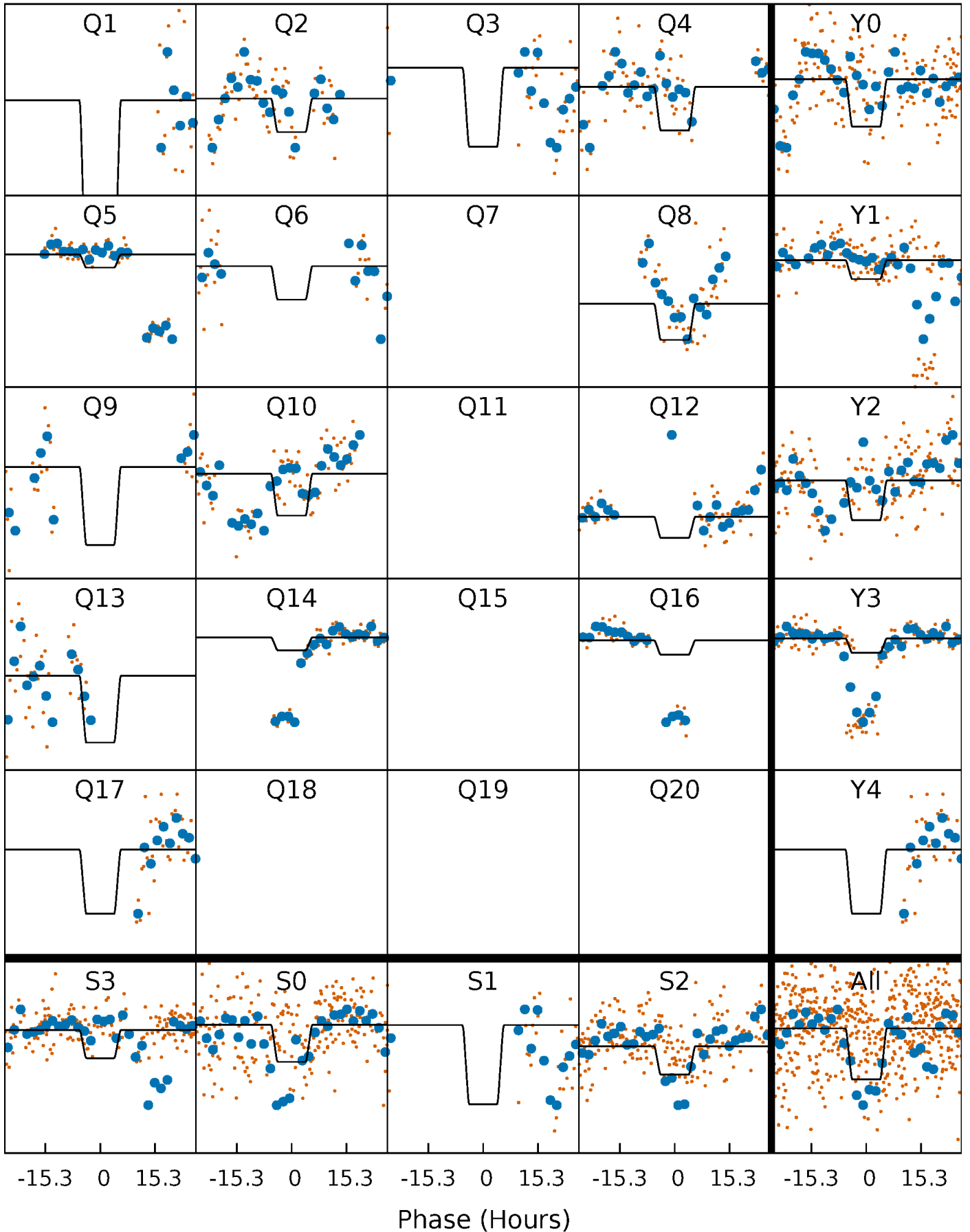
DV Quarter-Phased Transit Curves

TCE 009790034-06 P= 44.512947 Days $T_0=154.941981$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

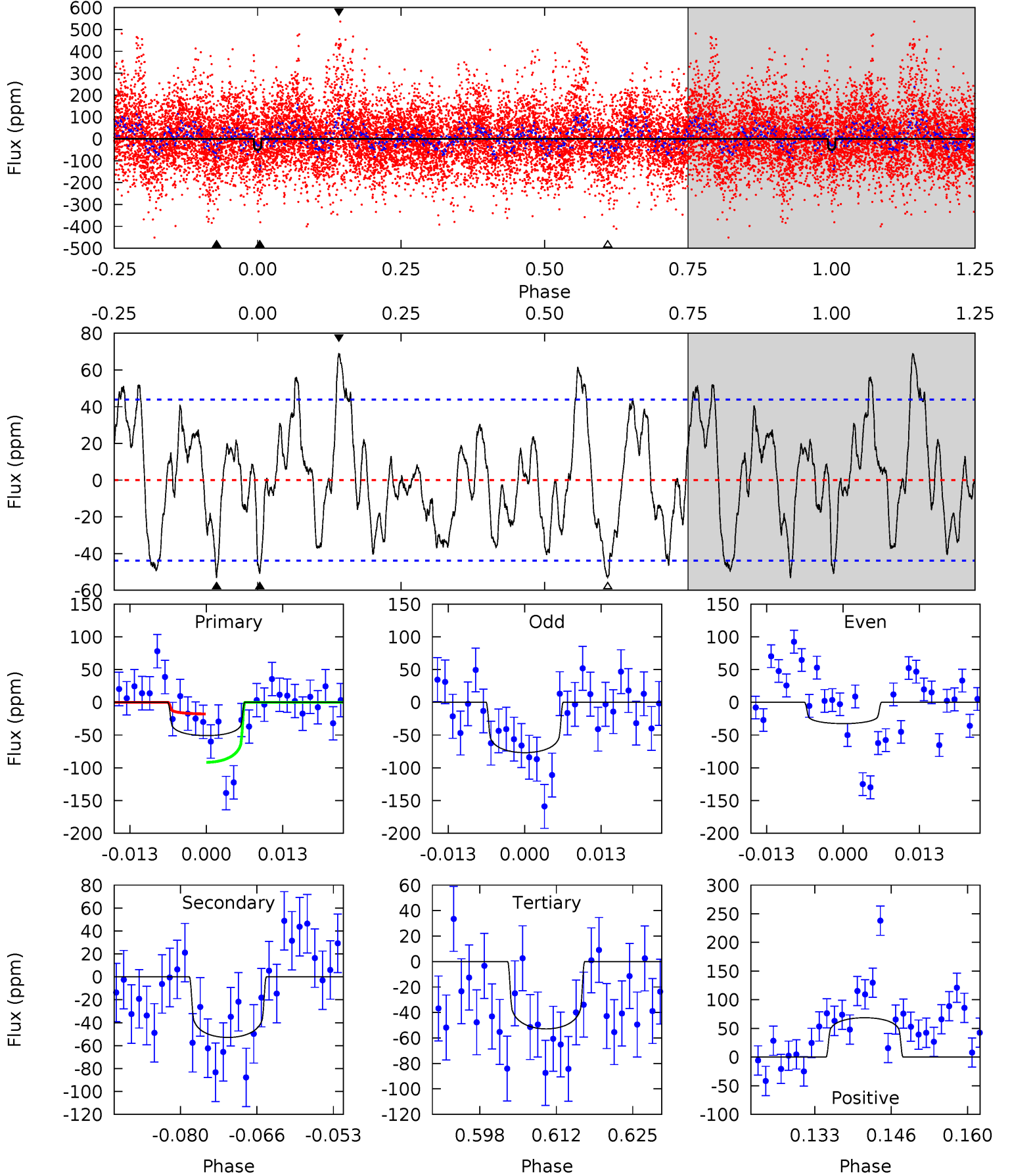
TCE 009790034-06 P= 44.512676 Days $T_0=154.953661$ (BKJD)



DV Model-Shift Uniqueness Test

009790034-06, P = 44.512947 Days, E = 110.429034 Days

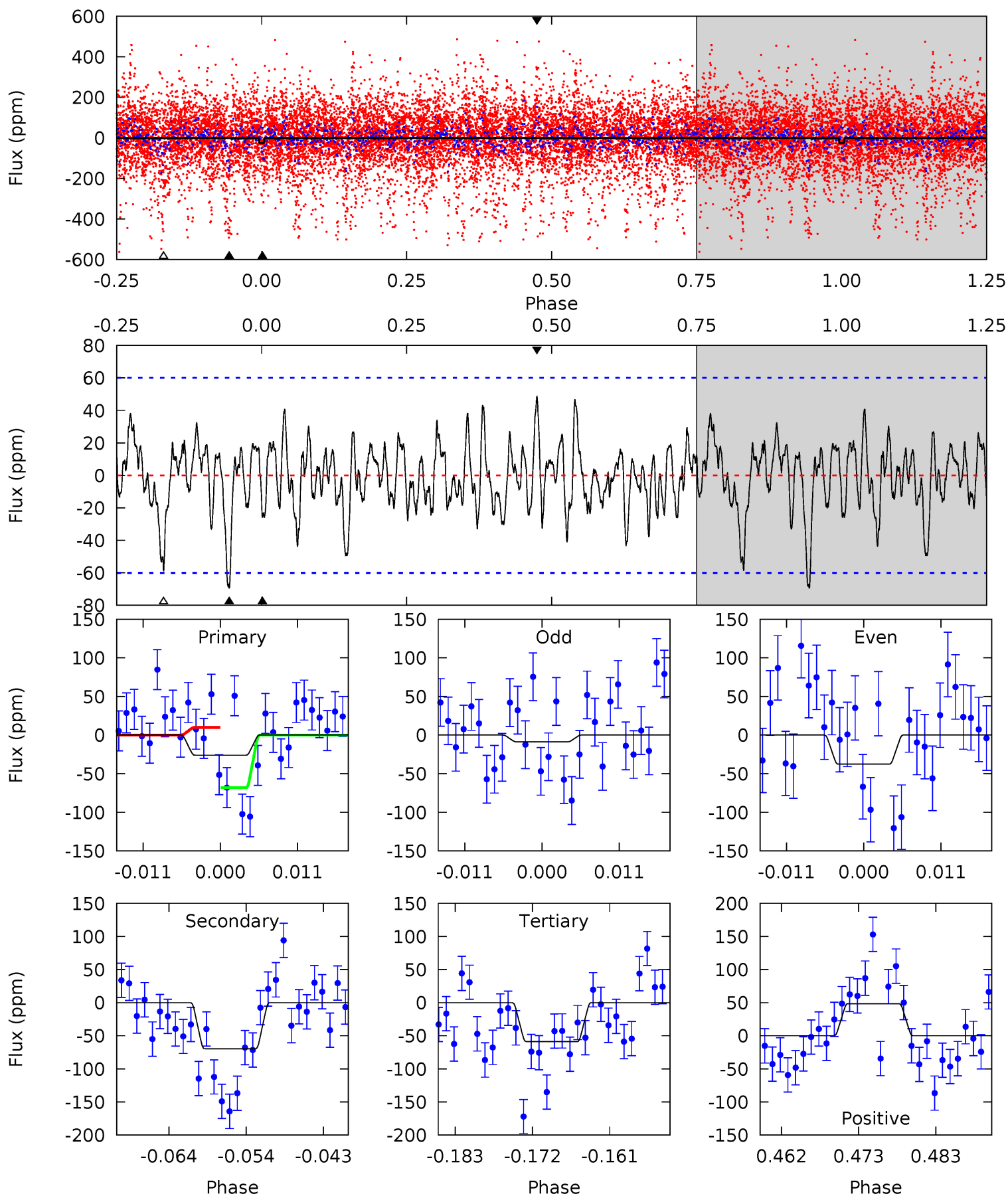
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.76	6.00	5.99	7.78	4.97	2.48	2.91	-0.23	-2.02	0.00	-1.78	2.50	0.66	0.56	4.19



Alt Model-Shift Uniqueness Test

009790034-06, P = 44.512676 Days, E = 110.440985 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.18	5.81	4.91	4.04	5.01	2.55	1.45	-2.73	-1.87	0.90	1.76	1.13	3.85	0.41	2.45



Stellar Parameters For KIC 009790034

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6796^{+183}_{-224}	$3.941^{+0.280}_{-0.100}$	$-0.640^{+0.300}_{-0.300}$	$1.904^{+0.386}_{-0.628}$	$1.155^{+0.193}_{-0.158}$	$0.236^{+0.428}_{-0.086}$
	+3%/-3%	+7%/-3%	+47%/-47%	+20%/-33%	+17%/-14%	+182%/-36%
Source	PHO1	FLK73	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 009790034-06 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-53 ± 9	$1.55^{+0.80}_{-0.75}$	1122^{+67}_{-93}	6547^{+3424}_{-1233}	816^{+2291}_{-465}
Alt.	-70 ± 12	$2.51^{+0.88}_{-0.81}$	1117^{+69}_{-92}	5529^{+1041}_{-646}	413^{+486}_{-191}

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 $A_{obs} \gg 1.0$

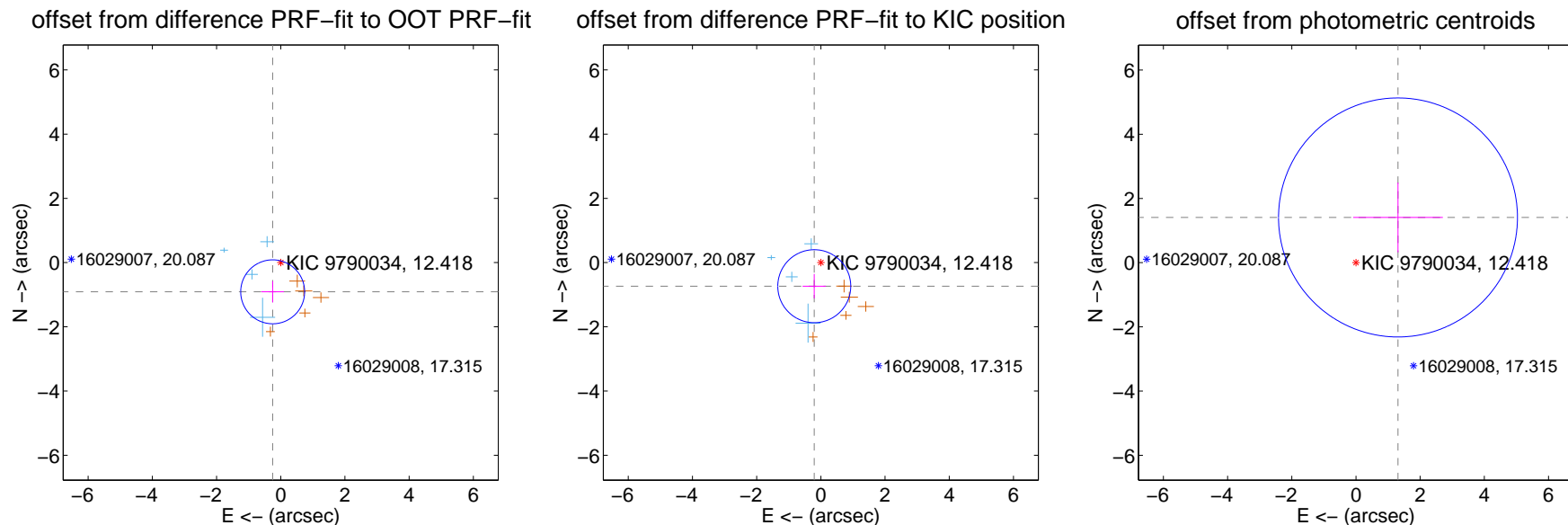
DV Centroid Data

Supplemental centroid analysis for 009790034-06. Kepler magnitude: 12.42. Transit SNR 3.94

There are 4 quarters with good PRF difference image offsets

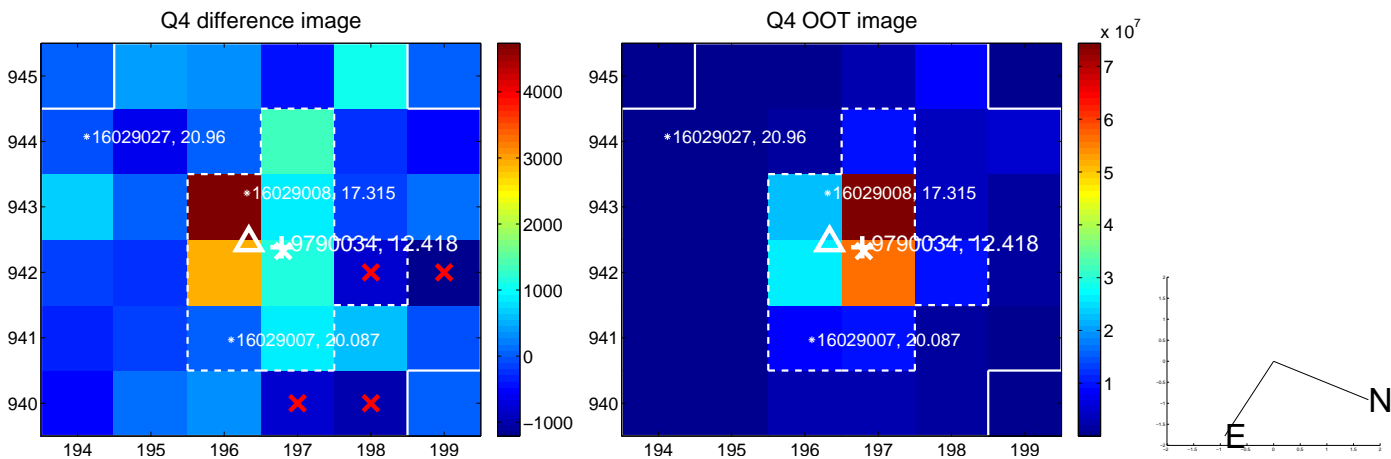
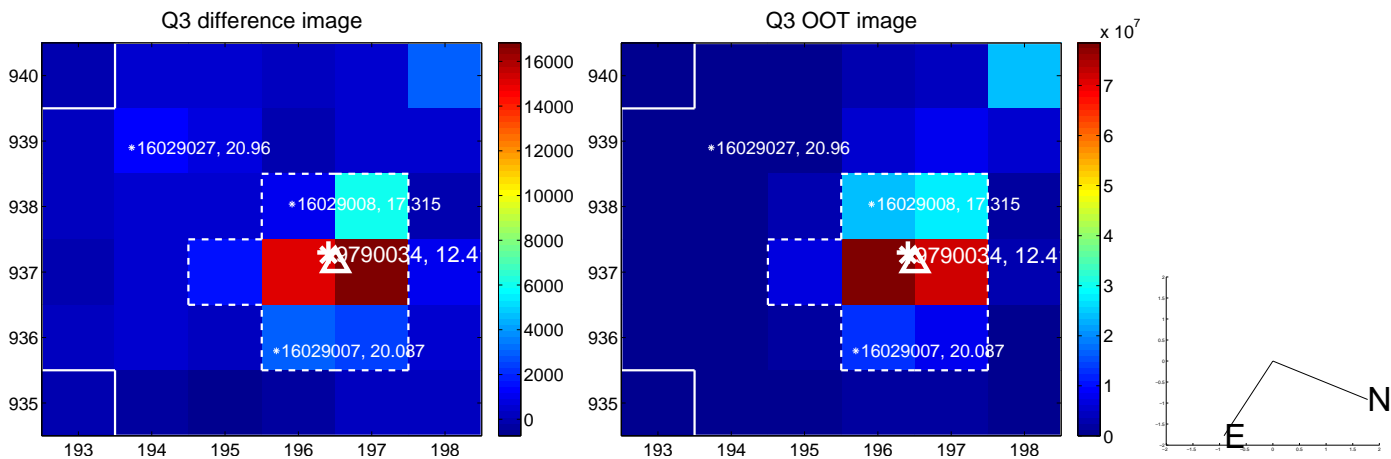
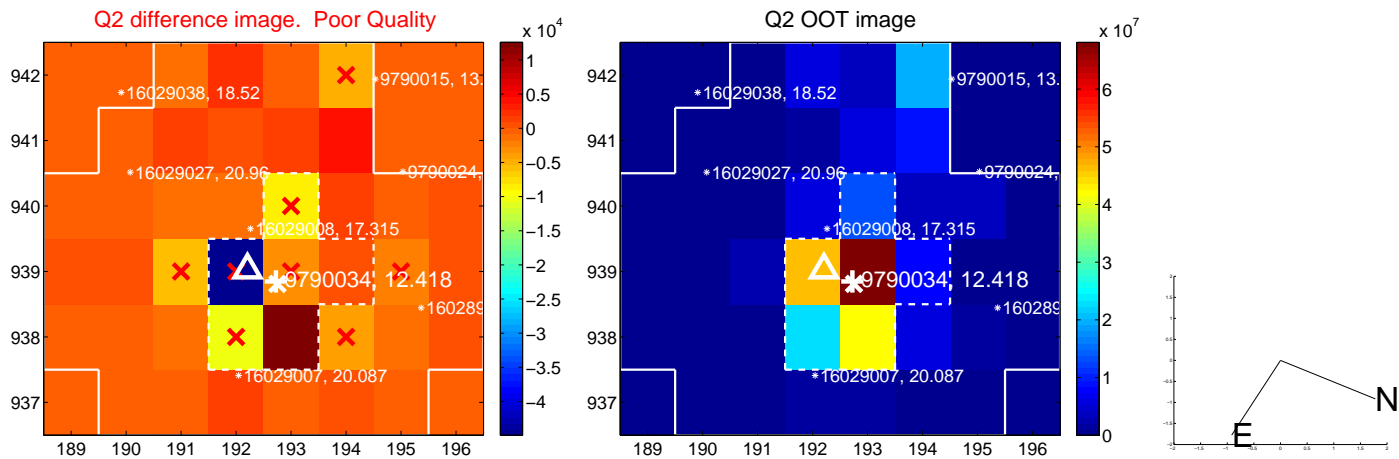
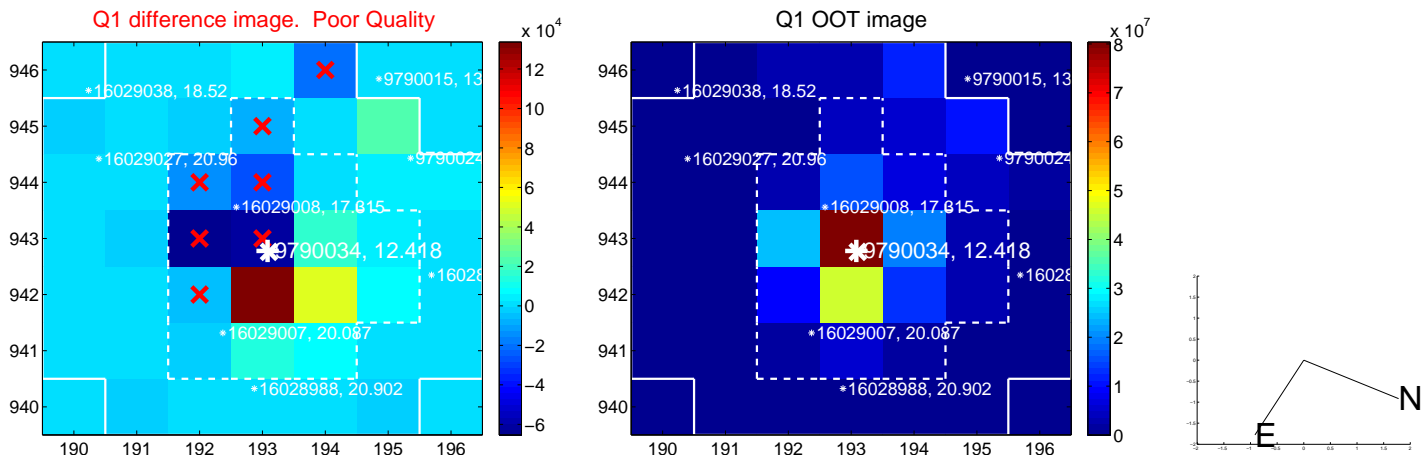
The direct PRF centroid is offset from the target star catalog position by about 0.32 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.944 ± 0.332	2.84	0.252 ± 0.353	-0.910 ± 0.330
PRF-fit source offset from KIC position	0.764 ± 0.379	2.02	0.206 ± 0.362	-0.736 ± 0.380
photometric centroid source offset	1.92 ± 1.24	1.55	-1.31 ± 1.40	1.41 ± 1.09

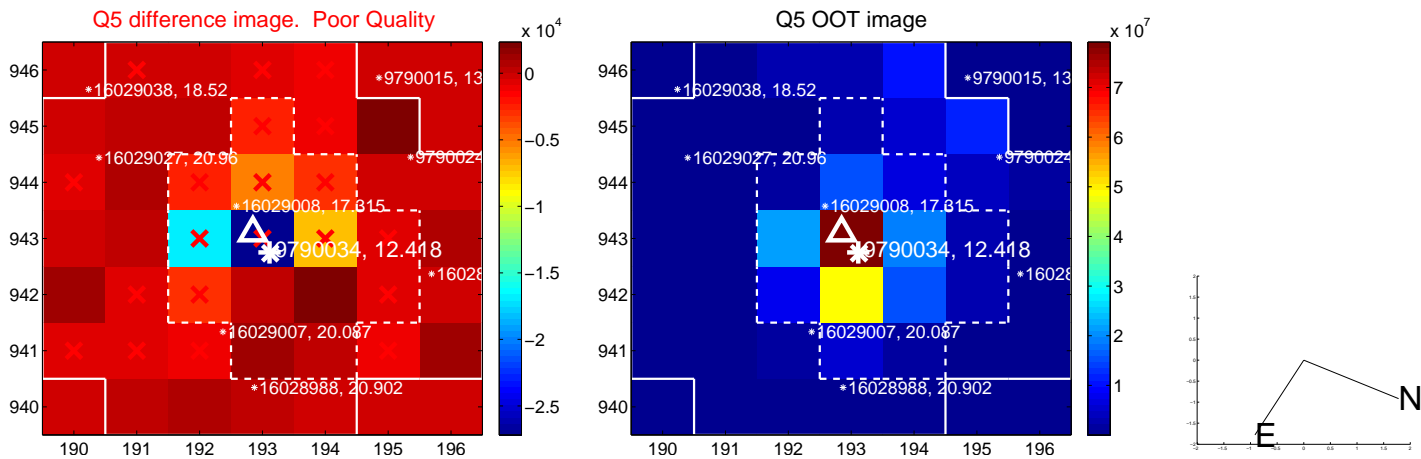


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

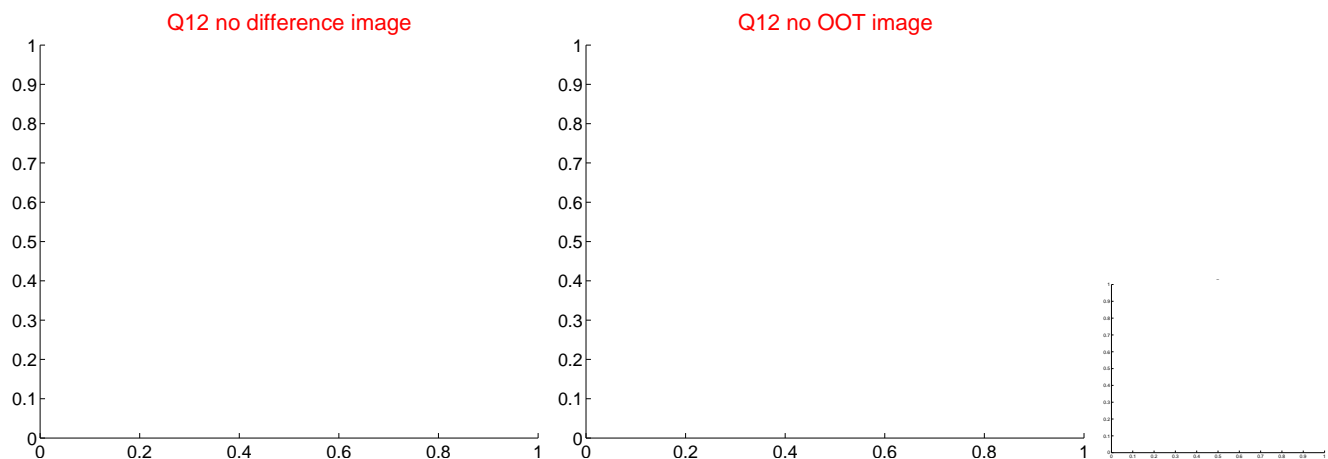
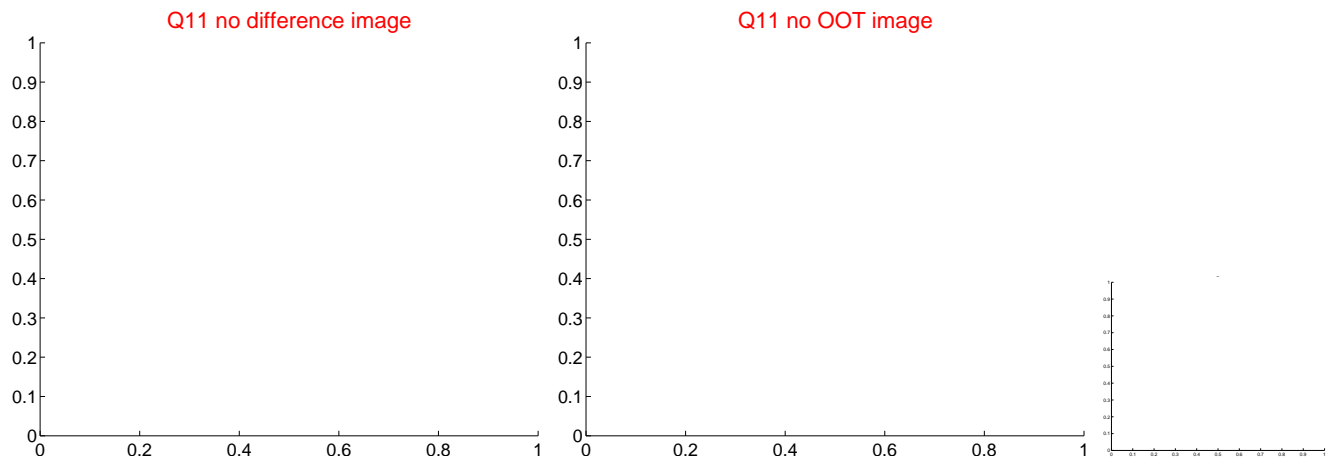
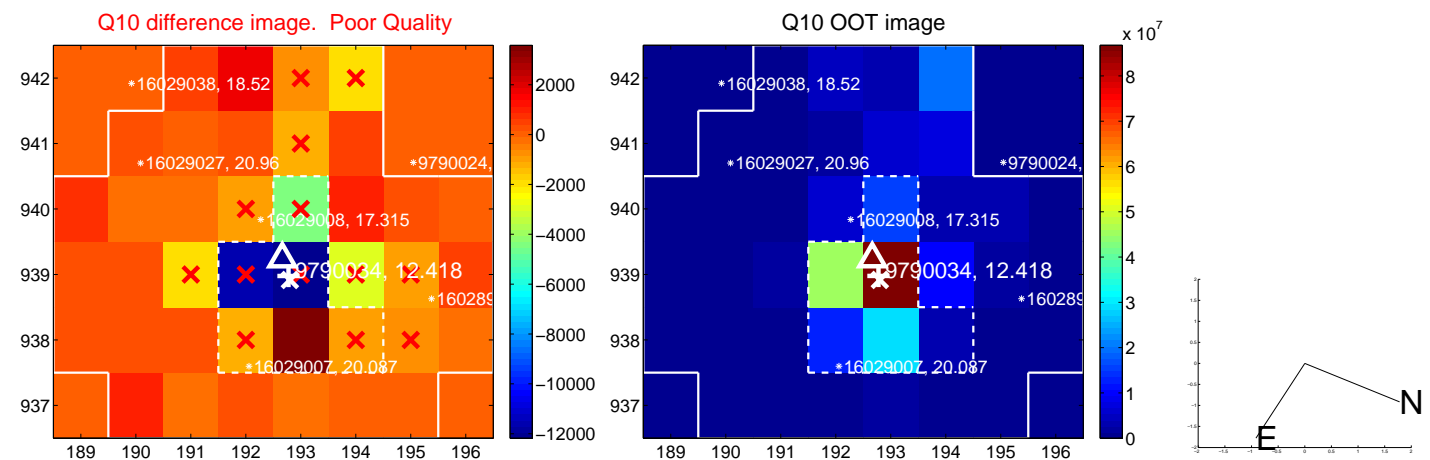
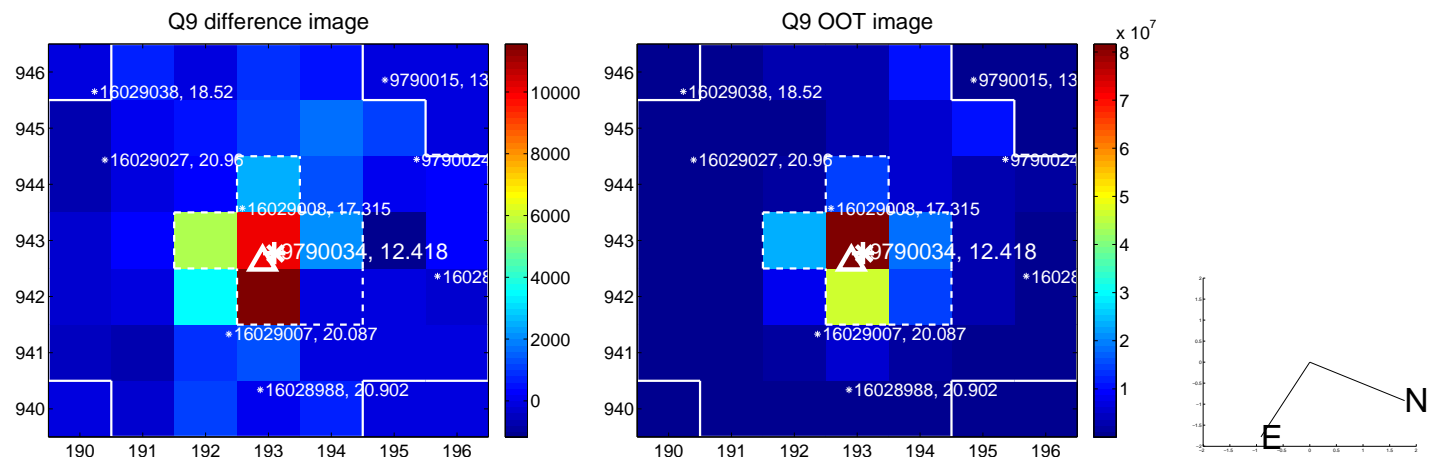
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



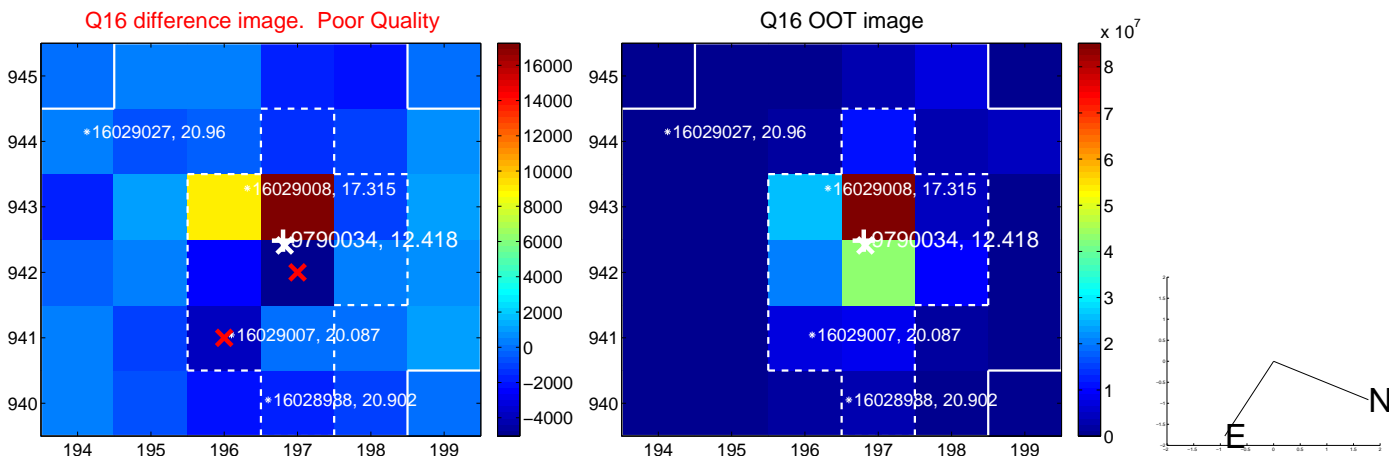
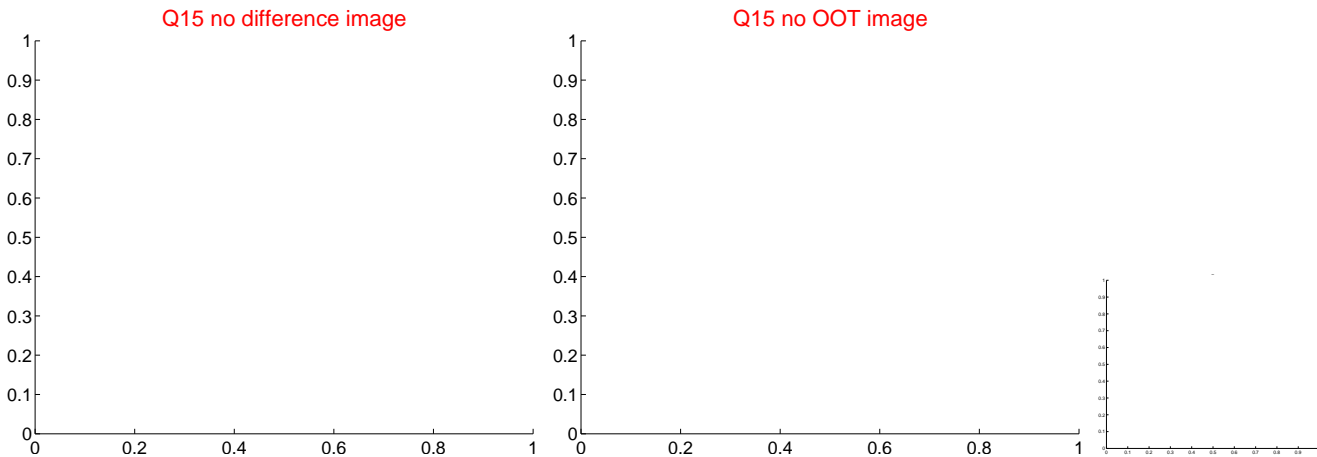
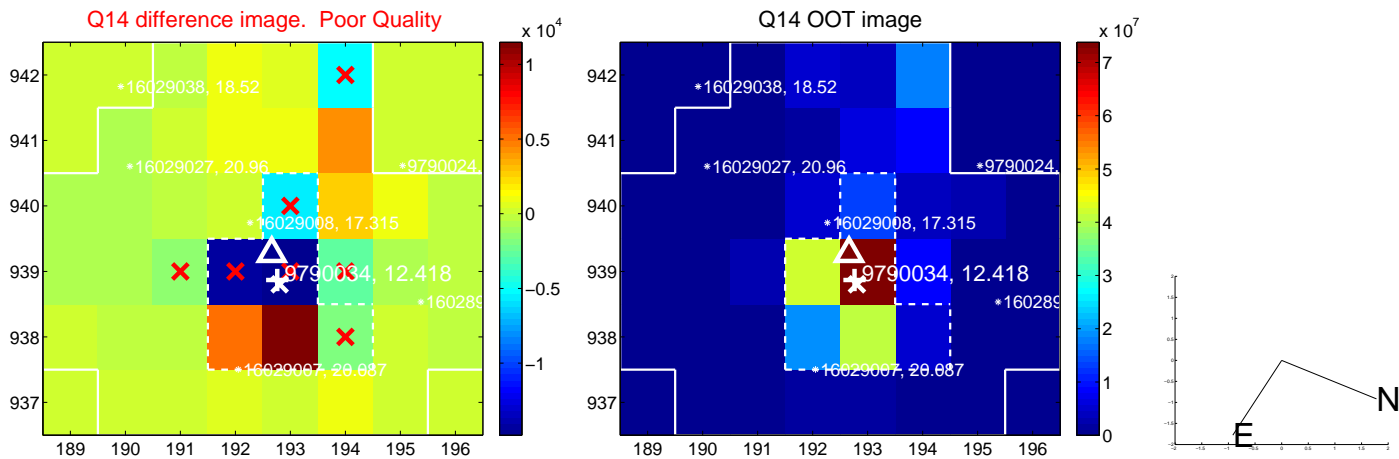
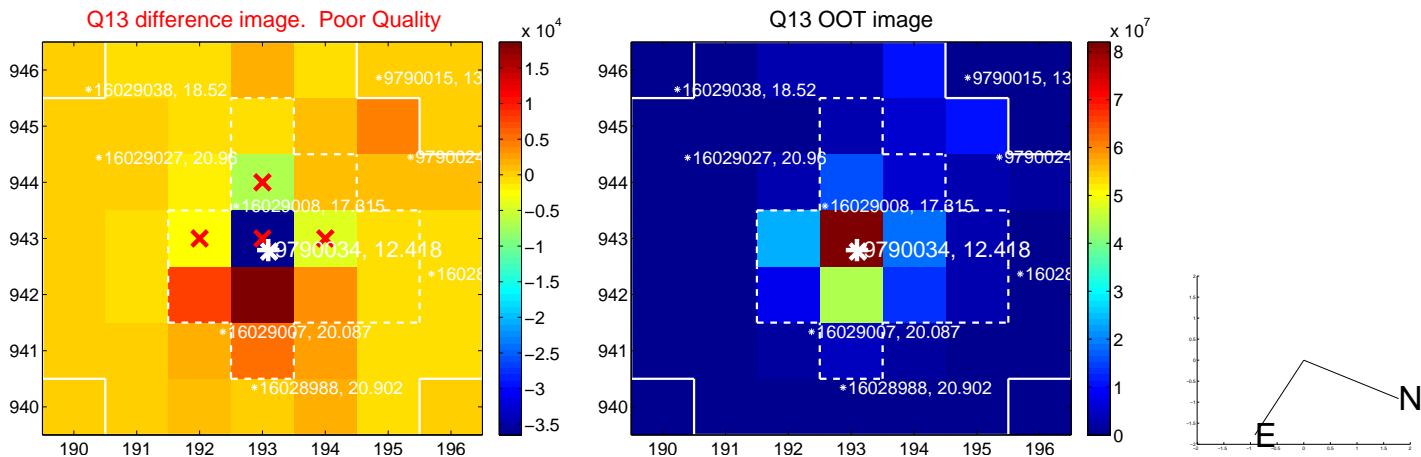
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



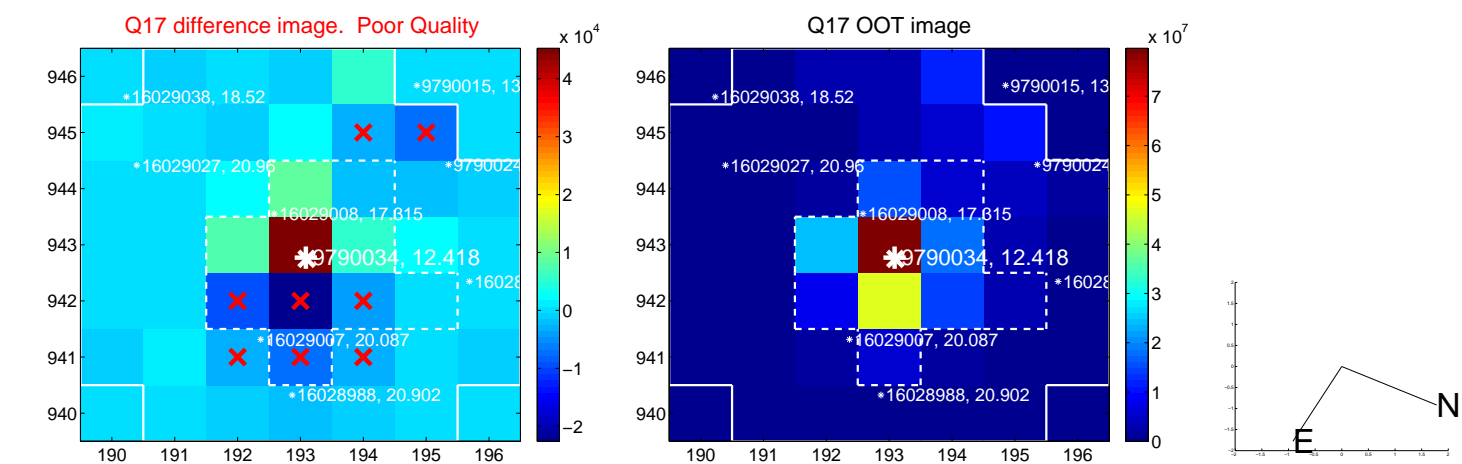
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



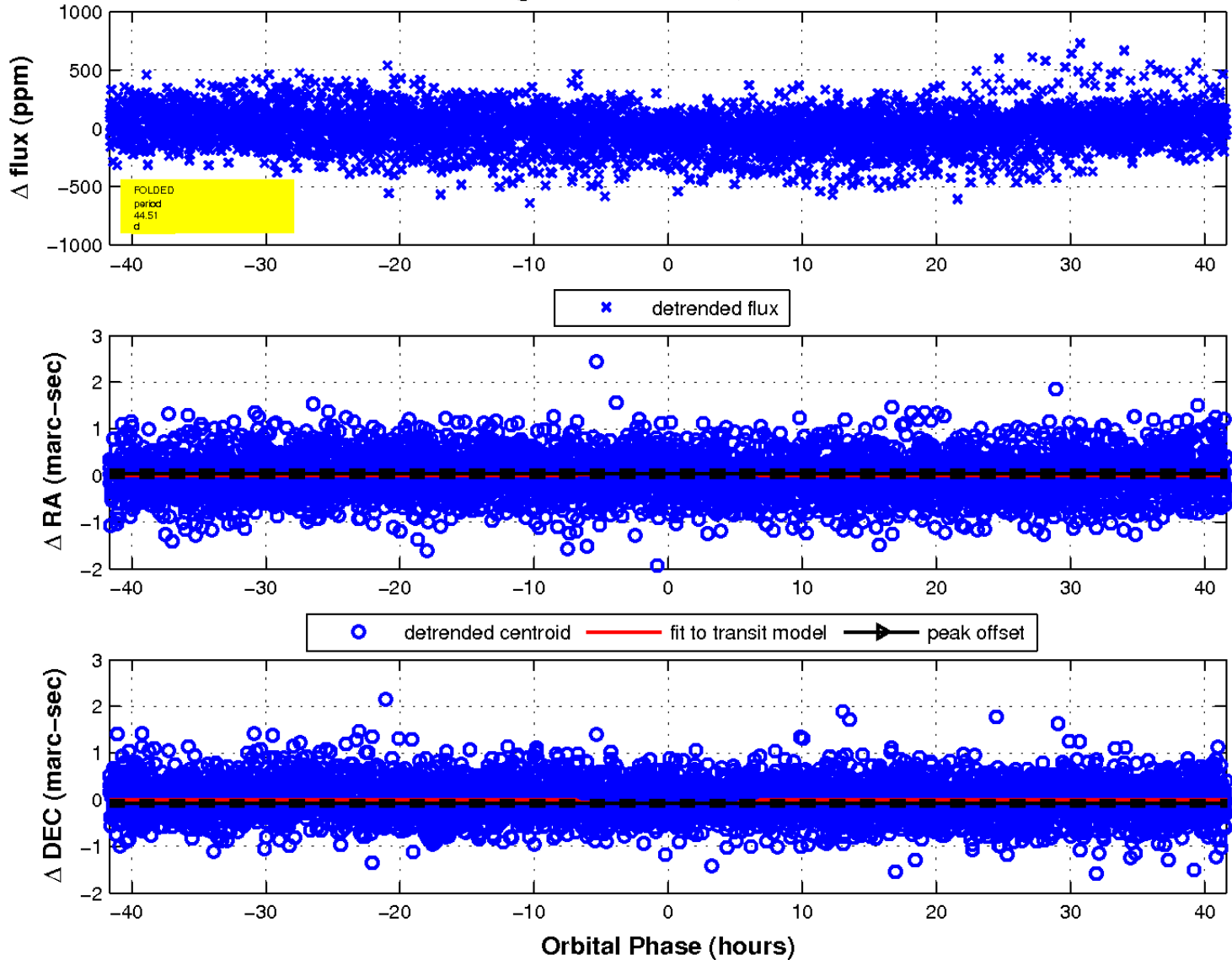
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 6 of 6



UKIRT Image

Declination

